















EDITORIAL CORRESPONDENCE: After the Nez Percés... 403 Our London Letter... 133 Sporting Clubs and Sportsmen of Russia... 439 Virginia Vigilantes... 190 Editor's Return... 150 English Sportsmen in America... 213 English Tribute to American Science... 358 Ernest Morris... 190, 272 Famine in India... 150 Panama Borealls... 170 Field Sports... 20 Fighting with Cogniac... 274 Finland Post and Station System... 370 First Snow... 436 Fishery Question... 332 Florida Colony... 256 Florida Swindling Scheme... 295 Flowers All Around... 418 Fox Hunting on Long Island... 235 Fraul... 21 Fred Beverly in the West Indies... 31 Friendless Girls' Home... 312 Game Birds of New England... 10 Game Dinner at Chicago... 352 Gazetteer... 12, 170 Geographical Redicoveries... 353 German Sporting Literature... 352 Government Publications... 222 Halford, Sir Henry... 150 Hayes' Policy... 295 High Price of Sporting Goods... 253 How to Clean Choked Water Pipes... 253 How We Suffer, and the Reason Why... 292 Hydrophobia and Rabies... 437 "Illustrated Dramatic and Sporting News"... 312 Initiating an Important Movement... 170 International Exhibition... 51 International Rifle Match... 70 Jolly Club... 30 Jim... 150 "Kansas Farmer"... 418 Letters of Sportsmen... 233 London Circus... 295 Long Range Shooting... 50 Major Leech... 273 Marshall's Address... 402 Massachusetts Game Law... 110 Matt Morgan's Cartoon in "Spirit of the Times"... 388 Merry Christmas... 386 Migratory Quail... 11 More Oranges... 418 Mule Trails... 233 National Rifle Association... 1292 Natural History and Geography... 272 Nature's Wear and Tear... 370 N. B... 30 Nebraska Notes... 152 New Year's Greeting... 402 N. Y. Hort. Soc'y... 430 Noble Ambition, A... 196 Old Arms, Antiques, etc., Sale of... 292 Off For Texas... 91 Our Contributors... 233 Our Game... 51 Our Questions and Answers... 312 OUR WASHINGTON LETTER: Bench Show for Washington... 151 Carp Culture... 404 Chinoteague Island... 111 Columbia Rifle Club... 52 Corcoran Art Gallery... 295 Hortonian Hare Match... 31 Duck Shooting on Potomac... 457 Great Falls Fishing Club... 192 Ortolan Shooting... 81, 151 Protection of Fish and Game... 192 Beed Bird Diet for Snakes... 31 Ruffed Grouse Shooting... 192 Sport at Virginia Springs... 52 Woodcock Shooting... 52 Our Western Agent... 332 Personal... 332 Photoscope... 418 Rare Books... 352, 371 Registration Book for Sportsmen... 293 Restigouche Salmon... 12 Rifle Department... 293 Rifle Match... 130 Salmon Fisheries of California... 233 Shall the Centennial Rifle Match be Abolished?... 272 Shall the N. R. A. Abdicate?... 252 Sitting Bull... 110 Sheep Raising in Texas... 436 Some Grumbling... 386 South Carolina Oranges... 402 Southern Shore Long Island... 110 Sporting Clubs in Russia... 436 Stealey's Parakeets... 436 Stealing an Elephant... 272 Stray Notes from the Editor... 51, 70, 130 Summer Rusticating... 60 Snetain Established Sporting Papers... 352 Thanks... 402 Thanksgiving... 332 Thrash, The... 30 To German Billmen... 370 Tourist's Register... 332 Troubles at Aquarium... 274 Vacation Rambles in Michigan, Wisconsin and Minnesota... 212, 234, 253, 272, 293, 312, 333, 370, 386, 419, 437, 478 Vanity Fair... 418 Watterson, Henry... 332 West, W. G., Death of... 274 Whether the FOREST and STREAM Fetches... 418 Wholesale Poachers on the Sacramento... 436 Wolf Druff Expedition... 70, 233, 418 Yellow Fever at Port Royal... 213 Yellow Fever in Florida... 295 Yet Another Sportsman's Journal... 253 Young Quail... 30

Green, Seth, Letter from... 104 Illinois... 247 Iowa... 236, 361 Iowa Fish Ass... 426 Kentucky... 23 McLeod River Trout... 247 McLeod River Hatcheries... 200 Maine, Report for 1877... 449 Massachusetts... 63, 143 Mather, Fred, in England... 266 Michigan... 449 Michigan Fish Commissioner on his Travels... 43 Mink Infesting Trout Ponds... 429 Minnesota... 143, 380 Nevada... 104 New England Fish Culture... 266 New Hampshire... 23, 44, 104, 184 New Jersey... 4, 63, 164 New York... 23, 143, 204, 226, 247, 297 North Carolina... 305 Pennsylvania... 134, 305 Poachers, Worst Sort of... 305 Priority of Fish Breeding in United States... 164 Salmon, Age for Transporting... 269 California... 63 Columbia River Hatcheries... 184 Cayuga Lake... 345 Cayuga Lake... 380 in the Lakes... 226 Ohio... 226 Penn... 366, 325, 344 the Richelieu... 143 the Susquehanna... 345 Virginia... 364 Salmon Trout on Pacific Coast... 247 Sandwich Islands, Fish from... 364 at Easton... 226 Shad in Lake Ontario... 226 Susquehanna, Dams in the... 184 Tennessee... 63 Transporting Fry... 23 Trout, Rapid Growth of... 184, 286 U. S. Fish Commissioners in Salem... 84 Violation of Law in California... 184 Virginia... 23 White's in an Oyster?... 104 White Bait... 266 Wisconsin... 345 Lake Trout and White Fish... 364 Report for 1877... 429

GAME BAG AND GUN.

About Guns and Ammunition... 216 Another Fusilade... 455 Audubon Club... 451 Bear Hunt on Sunflower River... 474 Bewildered Pheasant... 114 Big Hunt... 330 Blue Point Club... 400 Blue Rocks on Coast of Ireland... 287 Bogardus... 388 Feat at Gilmore's... 431 Accepts Carver's Challenge... 431 Sketch of His Life... 415 BRIEF REPORTS: Arkansas... 94, 148, 176, 216, 310, 355 California... 54, 127, 148, 176, 195, 287, 310, 383, 400, 491 Canada... 30, 94, 127, 198, 216, 290, 250 Colorado... 216, 259, 415 Connecticut... 34, 127, 148, 216, 270, 287, 330, 353, 414 Dakota... 94, 127, 230, 250, 355, 568, 454, 454, 473, 420 France... 176 Georgia... 250, 353 Illinois... 73, 143, 195, 216, 250, 383, 434 Indiana... 76, 94, 114, 148, 176, 216, 310 Iowa... 14, 54, 94, 216, 390, 383, 400 Kansas... 127, 148, 272, 353, 455 Kentucky... 34, 73, 114, 175, 195, 216, 230, 250, 491 Louisiana... 148, 176, 216, 287, 400 Maine... 250 Maryland... 73, 195, 250, 310, 454 Massachusetts... 34, 54, 73, 93, 127, 176, 195, 216, 230, 250, 270, 297, 310, 380, 355, 368, 414, 454, 473 Michigan... 14, 54, 74, 175, 195, 216, 297, 401 Minnesota... 54, 74, 194, 216, 250, 287 Mississippi... 114, 195, 230, 270, 363, 383, 400, 414, 473 Missouri... 34, 94, 454 Montana... 400 Nebraska... 270 Nevada... 14, 54, 94, 127, 175, 215, 315, 454 New Brunswick... 175, 215, 315, 454 New Jersey... 34, 93, 143, 175, 230, 250, 287, 310, 331, 355, 368, 491 New York... 34, 54, 73, 127, 148, 175, 216, 239, 250, 270, 287, 310, 363, 383, 434, 473 North Carolina... 195, 216, 250, 310 Ohio... 54, 127, 195, 230, 250, 270, 330, 414, 454, 491 Oregon... 114, 310 Pennsylvania... 34, 54, 73, 93, 127, 148, 175, 195, 216, 230, 250, 270, 287, 310, 380, 355, 368, 383, 400, 414, 454, 491 Rhode Island... 270, 287, 310, 355, 383, 491 South Carolina... 143, 355, 368, 383, 414, 434, 451, 473 Tennessee... 148, 176, 216, 230, 250, 270, 400, 473, 491 Texas... 127, 148, 176, 195, 230, 250, 270, 310, 363, 383, 434, 473 Vermont... 14, 127, 250, 270, 400 Virginia... 14, 114, 175, 195, 216, 250, 270, 287, 310, 330, 368, 453, 434 Washington Territory... 114 West Virginia... 310 Wisconsin... 34, 94, 127, 195, 230, 250, 355, 368, 415, 454 Buffalo Gun Club... 473 California Quail Shooting... 384 Camp's Automatic Cartridge Loader... 450 Canvas-Back Sporting Club... 400 Carver's Challenge... 415 Challenge Extraordinary... 455 Charges for Guns... 416 Child's Shot... 73 Choke-Bore, The First... 310 Christmas Turkeys... 400 Conical Chambers... 175, 215, 315, 454 Covering Muzzle-Loaders... 175, 320 Convar Club... 414, 454 Czar's Bear Preserves... 176 Decoying Ducks... 383

Disastrous Buffalo Hunt... 230 Douglass Breech-Loader... 416 Ducking on St. Clair Flats... 128, 148, 350, 356 Eclipse Loader... 416 Elk on the Rampage... 216 Equity to Recapper... 147 Experiments with Shot Guns... 416 Ferrisburg Club... 454 Fine Turkey... 455 Fire Hunting Deer in Fla... 289 First Quail in Va... 270 Going to Florida... 94 Fond of the Woods... 44 From McKenzie River... 216 From Sitting Bull's Stamping Ground... 250 From the Tar Heel State... 175 Fun at Homosassa... 384 Fur Market... 416 Gaillard Sport Club... 271 Game Ball Shooting... 288 Game Ball Shooting... 434 Good Many Snipe... 305 Great Shooting Country... 326 Gun Accidents... 473 Gun Trials... 415 He Fired a Gun... 216 Hoberton's Removal... 492 How to Burst a Gun... 73 How to Clean Gun Barrels... 288 Hunting in Palace Cars... 230 Impervious Shells... 473 Iowa... 473 Jack and Fishing Lamp... 473 Kleiman's Gun... 400 Krider, Card... 416 Ladies in Camp... 492 Lake Koshkonong... 147 Large and Small Bores... 271 Large Bores... 281 Letter from Philadelphia... 434 Ned Buntline... 434 Loon Shooting... 400 Market Shooting in Mass... 473 Minnesota Shooting Season... 401 Misfortune, A... 283 Missouri Pigeon Roost... 289 Mixing Dittmar and Black Powder... 474 Moose in Adirondacks... 115 Muzzle of the Bounds... 330 Muzzle-Loader Changed to Breech Loaders... 401 My First Swan... 253 Ned Buntline on His Travels... 380 New Year's Ducks... 454 Notes from Cal... 455 Not Much of a Slaughter After All... 356 Old Farmers and Sportsmen... 383 Old Breech-Loader... 401 Old Guns... 443 Old Pistol... 287 One Week's Hunt... 311 Our Register... 367 Paine's Glass Balls... 383 Partridge Story... 114 Parts of a Gun... 73 Pin-Fire Guns... 356 Pigeon Shooting... 170 Preservation of Game... 170 Puzzle for Sportsmen... 355 Answers... 334, 368, 415 Queen's County Hunt... 195 Quicker Gun... 434 Quite Convenient... 310 Recapper's Theories... 84 Recapper to Equity... 175 Revival of Game Laws... 34, 285, 250 Revival of Hawking in England... 114 Rifle at Running Deer... 416 Rust in Guns... 310 Schuyler, Hartley & Graham... 400 Scott's Gun... 454 Sharp Game Bird... 350 Shell Bursting... 400 Shells, Various... 415 Shooting Around Mountain... 288 Shooting from the Hip... 73 Shooting Suits... 34 Shot Display... 390 Shots at Running Deer... 383 Small Bore vs. Large Bore... 54 Soft and Chilled Shot Trials... 492 South Brooklyn Club... 356 Sport in Clinton Co., Pa... 288 Iowa... 288 Mexico... 288 Sporting Farmer... 400 Strange Accident... 195 Substitute for Choke Boring... 54, 216 Table of Charges Confirmed... 73 Three Black Crows Out-General the American Eagle... 356 Tight Shot, Hint of... 400 Tit for Tat... 216, 287 To Keep Game in Warm Water... 14 To Take Lead from a Gun Barrel... 473 Trouble for Sportsmen... 473 Vancouver's Island... 148 Wad Board... 148 Western Diana... 114 West Indies Game... 368 Who is R. Wakefield?... 311 Wild Goose Post... 311 Wild Pigeon's Roost... 454 Wild Rice... 148 PIGEON MATCHES: Canada... 499 Carver's Feat... 493 Championship Medal... 175 Bogardus at Gilmore's... 431 Challenge to the World... 35 Rules for Glass Ball Shooting... 311 vs. Paine... 474 vs. Talbot... 474 California... 74 Connecticut... 54, 128, 143 Glass Ball Range... 311 Illinois... 74, 195, 217, 311, 331, 363, 417, 474 Indiana... 14, 369 Kansas... 128, 215, 280 Kentucky... 54, 74, 148, 176, 401 Long Island... 14, 54, 74, 114, 176, 217, 251, 271, 289, 356, 384, 401, 410, 434, 455, 474, 492 Maine... 14, 176, 350 Maryland... 35, 74, 176, 298, 474 Massachusetts... 195, 384, 417, 474 Michigan... 195, 384, 417, 474 Nebraska... 35 New Jersey... 54, 74, 94, 114, 128, 176, 217, 289, 356, 401, 474, 492 New York... 114, 128, 176, 217, 356, 389, 417, 474

Ohio... 14, 74, 148, 455, 475 Pennsylvania... 14, 35, 94, 128, 217, 401, 492 Rhode Island... 35, 54, 74, 114 Tennessee Tournament... 251, 311 Texas... 94, 114, 143, 193, 215, 417, 455 GAME PROTECTION: Arithmetic for Game Clubs... 151 Acclimatization Society... 458 G. P. American Trapping in Canada... 333 Arkansas... 479 California... 190 Fish Question... 419 Quail in Illinois... 274 Canada... 150, 170, 190, 254, 314, 478 England, Shipment of Game to... 371 Florida... 31, 190 Illinois... 11, 111 Indiana... 31 G. P. Infringement of the Laws East and West... 296 Killing Deer for Their Skins... 453 In Unsportsmanlike Manner... 296 Massachusetts... 10, 51, 71, 111, 254, 314, 3-4 Michigan... 31, 334, 478 Nat. Sport. Association... 402 National Acclimatization... 492 Nebraska... 91, 495 New Hampshire... 213 New Jersey... 71, 91, 151, 171, 313, 314, 334, 439, 478 New York... 150, 171, 283, 274, 296, 314, 361, 419, 479 North Carolina... 371 Nova Scotia... 31, 334, 478 Ohio... 171 Pennsylvania... 33, 91, 213, 458, 479, 495 Quail Preservation... 495 Supervisors' Authority... 171 Texas... 10, 213, 402 Timely Hints... 371 Trespass Notes... 402 Virginia... 11, 151, 190, 254, 298, 314, 334 When are Quail Property in Season... 439 Who Killed the Bird?... 10 KENNEL: Age... 147 Alexandra Bench Show... 421 Algerian Greyhounds... 103 Anatomy of Dog... 7 Apparent Want of Nose... 168 Baltimore Dog Show... 339 Bench Show Classification... 421 Birmingham Dog Show... 421 Book for Breeders... 183 Boston Dog Show... 88, 103, 433 Breeding... 147 Breton Hounds... 46 Brief Kennel Notes... 8, 26, 47, 89, 127, 148, 168, 188, 209, 224, 267, 309, 351, 368, 382, 399, 421, 452, 453, 472, 491, 492 Puck... 432 Canines Meek in Spirit... 147 Canine Therapeutics... 46, 107, 250 Care of Dogs... 127 Caring for a Good Dog... 361 Cat Show at Philadelphia... 351 Charleston Bench Show... 332 Claiming of Names... 146 Classification of Bench Shows... 399 Cocker Spaniels... 46 Colors of Setters and Pointers... 490 Columbus Kennel Club Pointer... 66 Cost of Raising and Breaking Dogs... 350 Cost of Transporting Dogs... 361 Crooked Legs... 163 Cuddle Dimonts... 382 Dachehand, not Dachsunds... 491 Detroit Bench Show... 399, 421 Distemper Cure... 330 Dog and Fox Cross... 382 Dog Catcher Comes to Grief... 8 Dog Drowning a Cat... 229 Dog Fights... 497 Dog Poisoning... 297 Dog Portraits... 209 Dog Tax of Paris... 188 Dog vs. Porcupine... 297 Tearing Clothes... 432 Dog's Affection... 47 Considerate Regard... 350 Considering Facilities... 107 Dog's Draft Power... 187 As Friends... 157 Eating Eggs... 168, 188 For Close Covert... 26 For Turkey, Grouse and Squirrel Shooting... 297 that Eat Fish Only... 350 to Point Deer... 472 Duke's Pedigree... 368 Egg Suckers... 229 Echo at Philadelphia Bench Show... 367 Eight Hundred Quail... 399 English Hunting Field... 297 Fetal Enthusiasm... 188 Feeding Puppies... 146 Field Training... 329 English School for Dogs... 297 Fox, A Flunky... 332 Fox Bite, Death from... 350 Fox Hounds... 46 Fox Hunting... 381 on Regle... 453 in Paris... 431 in Virginia... 472 Fox Terriers... 269 God for Evil... 188 Gun Slay... 297 Half Mourning... 458 Hartford Dog Show... 187 Hints on Dog Breeding... 329 How Ladies Should Dress in the Field... 412 Hydrophobia... 47, 329, 399, 171, 490 Hypochondriac Canine... 183 Intelligent Dog... 108 Kennel Register... 108 London, Ont., Bench Show... 177 Lump on Shoulder... 267 Lurcher, The... 269 Lynchburg Dog Show... 47 Maine Dog Law... 47 Management of Dogs... 127 Mass. Kennel Club... 352, 421

Table listing various bird and animal species on the left column, with corresponding page numbers on the right column. Includes 'Matters Abroad', 'Meaville Dog Show', 'Muzzling', etc.

Table listing bird species and other animals on the left column, with corresponding page numbers on the right column. Includes 'Teaf of Life', 'Letter from Minnesota', 'On the Godabont River', etc.

Table listing various topics and events on the left column, with corresponding page numbers on the right column. Includes 'New Fish', 'New Vertebrate Fossils', 'Notes', etc.

Table listing various pastimes and events on the left column, with corresponding page numbers on the right column. Includes 'The Lost Hair', 'The Old Oak Tree', 'The King of the Brook', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Accipitricidae', 'Acclimatization Society', 'Albatrosses', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Albatrosses', 'Albino Quail', 'Robin', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Alepidosaurus', 'Antlers', 'Ant Habits', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Arizona', 'Bass', 'Bat', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Backbirds', 'Bluebirds', 'Boa Constrictor', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Boa Constrictor', 'Bower Bird', 'Brant', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Brant', 'Buck', 'Buffalo', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Buck', 'Buffalo', 'Buteo Harlani', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Cape May', 'Caribbean', 'Carp', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Carp', 'Cattail', 'Caterpillar', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Caterpillar', 'Cattle', 'Central Park', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Cattle', 'Central Park', 'Columbiidae', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Columbiidae', 'Coot', 'Cowbirds', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Coot', 'Cowbirds', 'Crawfish', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Crawfish', 'Croppie', 'Cuckoo', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Croppie', 'Cuckoo', 'Cupid', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Cupid', 'Curling', 'Curlew', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Curling', 'Curlew', 'Cyanidae', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Cyanidae', 'Cyanus', 'Cyanus', etc.

Table listing various bird species on the left column, with corresponding page numbers on the right column. Includes 'Cyanus', 'Cyanus', 'Cyanus', etc.

Table with multiple columns listing topics and page numbers. Includes sections like 'SEA AND RIVER FISHING', 'WOODLAND, FARM AND GARDEN', and 'YACHTING AND BOATING'.

What This Index Represents.

Attention is called to the foregoing Index, which affords, perhaps, the best possible resume of the field covered by the FOREST AND STREAM AND ROD AND GUN. The most cursory examination of the topics discussed in the several departments will show the aim and scope of the Journal.

The FOREST AND STREAM AND ROD AND GUN is a twenty-four page weekly Journal, published by the Forest and Stream Publishing Company, 111 Fulton st., New York. Terms, \$4 per year. Send for a sample copy.

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Ter ms, Four Dollars a Year. }  
Ten Cents a Copy.

NEW YORK, THURSDAY, AUGUST 9, 1877.

{ Volume 9,—No. 1.  
{ No. 111 Fulton St., N. Y.

(Translated from the Portuguese for Forest and Stream.)

### THE CRY OF A LOST SOUL.\*

IN that black forest, where, when day is done,  
With a serpent's stillness glides the Amazon,  
Darkly from sunset to the rising sun,  
A cry, as of the pained heart of the wood,  
The long, despairing moan of solitude;  
And darkness and the absence of all good  
Startles the traveler with a sound so drear,  
So full of hopeless agony and fear  
His heart stands still and listens, with his ear.

The guide, as if he heard a death-bell toll,  
Starts, drops his oar against the gunwale's thole,  
Crosses himself, and whispers "A lost soul!"—  
"No, Senor, not a bird. I know it well—  
It is the pained soul of some infidel,  
Or cursed heretic that cries from hell.  
Poor fool! with hope still mocking his despair,  
He wanders shrieking on the midnight air,  
For human pity and for Christian prayer.

"Saints strike him dumb! Our Holy Mother hath  
No prayer for him who, sinning unto death,  
Burns always in the furnace of God's wrath."  
Thus to the baptized Pagan's cruel lie,  
Lending new horror to that mournful cry,  
The voyager listens, making no reply.  
Dim burns the boat lamp, shadows deeper round  
From giant trees with snake-like creepers wound,  
And the black water glides without a sound.

But in the traveler's heart a secret sense  
Of nature, plastic to benign intents,  
And an eternal good in Providence,  
Lifts to the starry calm of heaven his eyes,  
And lo! rebuking all earth's on/nous cries,  
The Cross of pardon lights the tropic skies!  
"Father of all," he urges his strong plea,  
"Thou lovest all; thy erring child may be  
Lost to himself, but never lost to Thee!

"All souls are Thine; the wings of the morning bear  
None from that Presence, which is everywhere;  
Nor hell itself can hide, for Thou art there;  
Through sins of sense, perversities of will,  
Through doubt and pain, through guilt and shame and ill,  
Thy pitying eye is on Thy creature still.  
Wilt Thou not make, Eternal Source and Goal  
In Thy long years, life's broken circle whole,  
And change to praise the cry of a lost soul?"

For Forest and Stream and Rod and Gun.

### A Grouse Hunt in Sweden.

MANY years ago we had occasion to visit the town of Ostersund, the capital of the Province of Nordland, in the interior of the north of Sweden. The little place is most beautifully situated on the shore of "Storsjon" (Grand Lake), one of the larger inland lakes of the country. Dotted all over with birch-covered islets, it is surrounded on three sides by high mountains; to the north the "Offerdals," to the south the "Orviks," while to the west the "Areskutan" raises its snow-clad head some 8,000 feet above tidewater.

Expecting some good shooting during the week or more we were obliged to stay in the place (for it was in the latter part of August), we had brought with us our John Manton and our Russian setter, Finn, "a tried friend on many a bloody field." And just here let us say a few words in *memoriam* of the best dog it ever was our good fortune to possess. When yet a pup he was presented to us by a friend in Finland; hence his name. As full grown he was of medium size, strongly built, broad chest, rather long body, and short legs; head large, ears thin, but not very long; eyes large, full of intelligence; color white, with large spots of light brown; hair long and coarse, even on the head, and somewhat inclined to curling. On the whole a very homely beast. He was extremely intelligent, and easily trained; faithful and good-natured. The first day we took him out in the field he be-

haved like an old dog. I think I can safely say he never intentionally flushed a bird unless ordered to do so. He was a first-class retriever on land or in water; never much of a ranger. The greatest ranger in the world could not beat him to find game. His power of scent was marvelous and his endurance incredible. Finally, he was a first-class "reporter;" which term, as applied to a dog, may not be understood in this country, but is not unusual in Sweden, where a great deal of woodcock, black game and partridge shooting is done in very close covert. The term signifies that the dog, having found the game, but not seeing his master, barks out from the point, hunts up his master, "reports" by wagging his tail or some other doggish expression, and leads him directly back to the game. After we had hunted Finn for a season, we taught him this simply by hiding ourselves when he came on a point, and let him stand. Probably he remained on the point for an hour or more, and then he got tired of it, and as it was not in him to flush the bird, he retreated quietly and found us. We led him then at once to the game and shot it. Repeating this a few times he took it as a matter of course, and would afterward never remain for five minutes on the stand unless he saw us in the neighborhood. We hunted with this most excellent animal for ten seasons. After this digression we will continue our narrative.

At the hotel where we were staying, arrived the same day from Norway a young English baronet, whom we will call Sir Francis S., on his way to Stockholm. We had met Sir Francis before—as true a gentleman and as accomplished a sportsman as you would wish to meet. Seeing us provided with dog and gun, and himself also having a fowling-piece with him, Sir Francis proposed to join us the following day in a tramp in the mountains. Agreed. Our landlord furnished us with a sailboat and guide, and we set out next morning; but as hardly a breath of air ruffled the placid waters, we did not reach our objective point at the foot of the mountains until evening, very tired indeed from constant pulling nearly the whole time. At a small farm-house, near the lake shore, we spent the night, and here we hired another man and a pony to carry our provisions, blankets, etc., and also our expected large bag of grouse.

At 4 o'clock the next morning it was broad daylight, and we started. Following a cattle path through a dense forest of spruce and pine, on a rather steep ascent, we proceeded for five or six miles and emerged on an upland moor, where our guide, himself a hunter, told us we would find *orr-fogel* (black-grouse). And so we did; for within a quarter of an hour Finn came to a stand. Up went a dozen or more nearly full grown birds, and down went four of their number. We followed the direction the birds had taken, found them again somewhat scattered, picked up one after another, found two or three old cock-birds, and in about two hours had bagged nine brace. We were now on the bank of a beautiful little mountain lake, where we sat down to rest, refreshing ourselves with some excellent "Otard" Sir Francis brought with him all the way from London, took a smoke, and then resumed our upward tramp through another belt of timber, stunted and gnarled, the path more rocky and steep at every step. Finally, after a long and tedious march, we came out on an open, gently sloping terrace or table land. Naked granite ledges predominated, but in the declivities where soil had gathered was fine grass land, interspersed with patches of heather, dwarf birch (*Betula nana*), and several varieties of wild berry shrubbery. To the east and west this plateau extended for several miles, but to the north, within a distance of a mile, the very tops of the Offerdals mountains rose in precipitous cliffs to the height of more than 1,000 feet. Pasturing on the grass-land were quite a number of cattle, mostly milk cows, for this was the *satra* (summer pasture) of our landlord of the previous night, whose son Eric was our man with the pony. In a sheltered nook on the bank of a little mountain stream stood a comfortable lighthouse, with stables and a cattle pen. Summer pastures of this kind, often miles away from the homestead, belong to nearly every farm in Northern Scandinavia, where the cattle are sent early in spring and kept all through the summer and fall, invariably guarded by women, the farmers' daughters or hired girls, who milk the cows and make butter and cheese.

The *satra* now before us was presided over by Eric's two sisters, a couple of handsome girls, with clean cut features, fine figures, rosy cheeks, dark blue eyes, and a "profusion of golden curls." Having heard nothing from home for some

time, they were very glad to see their brother, and our whole party shared in the welcome. Tired and hungry, having had nothing to eat and very little rest since early in the morning, we lost no time to spread our stores, to which our amiable entertainers added the freshest of butter, the sweetest of milk and the richest of cream to our coffee, with bread of oatmeal, very brittle and thin as paper. After a most hearty meal we lit our pipes, and lying down to rest outside the house, were soon wrapped in the arms of Morpheus. We were the first to wake up, rather late in the afternoon, and missing our dog, we rose to our feet and looked around. Some 200 yards or more off we observed Master Finn, head erect and tall extended, marching ahead as gravely and slowly as an alderman in a Fourth of July procession. Apparently he was on some trail, and we let him have his own way, expecting every moment to see him come to a point. But no! On he went until he was nearly out of sound of my whistle, when I called him back. Rousing the whole party, we took our guns and ammunition and started for the place. The dog soon resumed the trail, following it quite a distance without any result. It was plain that the birds were running, and probably ptarmigans, for the girls had told us they had seen plenty of them every day. We were just deliberating what to do when Eric pointed to a naked ledge some hundred yards ahead, where a whole covey of birds were standing in full view. A moment later they took flight and sailed away a short distance, lighting in a thicket of dwarf birch. Neither of us had seen these birds before in their native wilds, and we were very anxious to have a shot at them—in fact that was our principal object in climbing that rough mountain side up to the *satra*. We sent our friend on a circuitous route to the other side of the covey and then went for them ourselves with the dog, leaving the guides behind, and taking care to make as little noise as possible. We succeeded in reaching the edge of the thicket without disturbing the birds. Here Finn came to a dead point, and with our gun ready for action, we entered the covey with rapid strides. Apparently we took them unawares, for up they went helter-skelter, on all sides around us, scattering in every direction. Three or four flew directly over the head of my companion, and he made a fine double shot. We also brought down the same number, and as they had lighted all around us, within 200 yards, we lost no time to follow them up. At first they lay pretty well, and we got two more brace within the next half hour; but after that they commenced again running and we heard their whistling on all sides. The dog would take the trail, but could not get up to the bird, who was running ahead faster than Finn, always 100 yards or more ahead. At last we got tired of this; it was rather late, and we started for the house and our supper. On the way back, in a deep ravine, we came unexpectedly on another covey of ptarmigans, of which on the first rise we brought down three, and that was the last we got of them, for they sailed far away out of sight.

In the meantime our kind hostesses had not been idle, and we found spread on the table a meal that might even tempt an epicure. There was a large dish of the "speckled beauties," as the piscatorial correspondents of FOREST AND STREAM like to call them, for the brook was just full of them, and the girls knew how to catch "oring," as is the name in that part of the world; then some of the black game we had killed in the morning, baked with salt pork, offered a most tempting dish; then fresh butter, milk, bread and coffee. This was all, as far as we remember, and we did ample justice to the repast. Again we stretched ourselves down on the ground for a quiet smoke and to enjoy the view, which was magnificent. To the east a large part of the Province of Nordland was spread out, a beautiful panorama of woodland and water, interspersed with cultivated fields. To the south—it seemed at our feet—expanded the glorious Grand Lake, a mirror in a framework of rugged mountains, and far away to the west Ariskutan raised its snowy head in solemn grandeur.

It was now bed time—past 10 o'clock. The sun had just set, but its parting rays spread yet a flood of light on the summits of the western mountains.

"The hall was cleared—the stranger's bed  
Was there of mountain heather spread."

And on such a bed we slept very comfortably indeed through the short summer night. Rested and greatly refreshed by a good ablution in the cool water of the brook, and after an ample breakfast, we prepared to leave early next morning. And here comes in the least bit of romance. We were much

\* This poem was written by His Imperial Majesty Dom Pedro II., Emperor of Brazil. The cry of the *Campanero*, a Brazilian bell-bird, resembles the slow tolling of a church bell. You hear his toll, and then a pause for a minute, then another toll, and then a pause again, and then a toll, and again a pause. Then he is silent for six or eight minutes, and then another toll, and so on. Actaeon would stop in mid-chase, Maria would defer her evening song, and Orpheus himself would drop his lute to listen to him, so sweet, so novel and romantic is the toll of the pretty snow-white *Campanero*. To the superstitious half-breed the note is one of horror, for he believes it to be the cry of a soul condemned to the torments that the Church prescribes for the damned.—Ed.]

pleased with the entertainment, and felt very grateful to the girls, who had had a great deal of trouble for our sake. My friend spoke about pay, but I explained to him that an offer of that kind would never do: apparently they considered us as guests. We had come there with their brother, and it was plain that the old folks at home had given instructions to treat us hospitably at the *saltra*. They were people in good circumstances. But our English friend, with plenty of guineas in his pocket and elsewhere, on saying good-bye, pressed in the hand of each girl a gold coin with the image of "Her Most Gracious Majesty," which we explained (our friend not being versed in the Norse tongue) that they (the girls) must hold as keepsakes in remembrance of our visit. Blushing and courtesying, they grasped the hands of the d-oor for kissing—a mark of respect among the peasantry of that country to men of great estate. But my friend would not understand it in that way. He was equal to the emergency, and with becoming decorum imprinted a kiss on each pair of those rosy lips.

"*Honi soit qui mal y pense.*"

Our return was taken by a much longer but less precipitous route, the same path in fact by which the cattle make their yearly journeys to and from the *saltra*. For several hours nothing of interest occurred. We hurried on, wishing to reach Grand Lake and return to Osterund as quickly as possible. Finn was at my heels most of the time. But toward noon, in a thicket of young pines close to the path, he suddenly came to a point. Of course we were ready, and out of the thicket darted half a dozen or more small birds, not much larger than pigeons. We got one each. This was a covey of Hjerpar (*Tetr. bonasa*), the small woodgrouse. They settled in a cluster of large spruce trees, not far away. Reloading, we went there without delay. We had seen plainly where they lighted, but look as we may we could not discover them among the thick branches. At last Eric got his eyes on one and tried to point him out to us. But no; we could not see him, and we gave our gun to the young man, telling him to shoot the bird, which he did. We then, with our friend, lay down to rest. We let Eric keep our piece, with permission to shoot any birds he could discover in those big spruces. And, right enough, he soon shot two more.

We moved now only a short distance to a fine spring, the location of which was well known to our guides, and here we spread our luncheon, refreshing and resting ourselves for a couple of hours. Then on again toward Grand Lake, which was yet some ten miles away. After proceeding some distance our path led us along the shore of a long but narrow lake. Our guides had before this told us that in this vicinity, if anywhere, we might find the "cock of the woods, the great Capercalzie," (*Tetra urogallus*), whose acquaintance Sir Francis was very anxious to make, this being, in fact, the principal object for his joining us on this excursion. In anticipation of such an event we had loaded our pieces with much coarser shot and heavier charges of powder. We had passed for the last hour or more through an open pine forest of heavy timber, with a low undergrowth of heather, upland cranberry and blueberry vines; but although Finn had been industriously at work he had not found anything. We came now to an opening in the forest, a kind of low meadow or marsh, running up from the lake some distance into the timber. In this opening were scattered here and there small blueberry patches, the shrubby two or three feet high. At one of these patches, on the very bank of the lake, our dog made game; advanced, creeping a few steps, and then threw himself flat down, as was his habit when under the influence of a strong scent. We did not doubt for a moment, nor did our men, that here we had found what we were in search of. On our suggestion we intended to advance from the lake side into the copse, in order to drive the birds toward the timber; but before this maneuver could be executed, up rose, all of a sudden and with a tremendous noise, some eight or ten birds, within twenty feet from where we stood. Truth compels us to say that at this, the best opportunity we had during the whole trip, we got only two birds. They got up before we were quite ready for them, and Eric with his pony and the other man were between us and the game when rising. Both of us missed with the first barrel, but, with the second we cut down a bird each, some thirty yards off, both falling in the lake, which all the remainder crossed, and were thus lost to us, for there was no boat, and it would take several hours to get around the water, which our time did not allow. Those we got were young, three-fourths grown birds, weighing probably eight to ten pounds each. Our enthusiasm was greatly softened down by the certainty that all the balance of this magnificent family had escaped us; but hoping to find some more of their relatives in the vicinity, we made Finn for more than an hour carefully examine every one of those blueberry patches. But nothing was found until we came to a small stream, which, on the other side, separated the meadow from the timber. Here Finn again, in his usual style, commenced marching up the left bank of the water course, toward a thicket of some kind of shrubbery. It was plain he was making game, and we followed close on his heels. We had not to wait long, for before the dog came to a stand, up rose a bird as large as a turkey-gobbler, which Sir Francis brought down handsomely at a distance of some forty yards. It was an old "cock of the woods" in full plumage, his green neck shining with a beautiful lustre. As we afterwards ascertained, he weighed fully fifteen pounds. Under ordinary circumstances my friend was by no means an enthusiastic or demonstrative man; his motto seemed rather to be, *Nil admirari!* But to say that he was delighted would only feebly express his feelings on this occasion. He did not exactly "jump out of his boots," but his countenance was illumined with exceeding joy as he took hold of his big bird and exclaimed: "*Finis coronat opus*," and added, "I would give a ten-pound note to have that bird stuffed." This was our last shot. Without further interruption we arrived at the farm-house in the evening, got some supper, thanked and said farewell to the old people, paid Eric liberally for himself and pony, sent our "best love" to the girls, and with a favorable wind set sail for Osterund, where we arrived in the "wee small hours" of the morning, very much pleased with our excursion. Our game bag contained three capercalzie, eighteen black game, eleven ptarmigans, five woodgrouse. Later in the day—being in those times quite a taxidermist—we skinned the great bird, got the apothecary to make us an ointment with pulverized arsenic, with which we rubbed the inside of the skin, made a temporary body and neck of cotton, put it all in a strong wooden box, and delivered it to our English friend with our compliments. In Stockholm, where Sir Francis arrived some days later, the bird was put in the hands of a skillful professional bird stuffer, who finished it in fine style, and that bird now adorns the library in my friend's ancestral hall in old England.

This excursion is fresh in my memory for three reasons: 1st. It is the only time I ever shot ptarmigans; 2d. The only

time when, in one excursion, I killed all four varieties of Swedish grouse; and last, but not least, on account of my English friend and his big capercalzie. J. S.

For Forest and Stream and Rod and Gun.  
TO NATCHEZ BY RAIL AND RIVER.

"The heads of many people were bobbing as in sleep,  
And many babies lifted their voices up to weep."

—Song of the Rail.

THE newly risen sun was shining brightly on a lovely May morning, as I stepped aboard a train on the Memphis and Charleston Railroad. The train was westward bound, and, as I took my seat, the man with a silver dog collar on his hat "yanked" the bell-rope, the whistle sounded, and the iron horse, breathing steam and coal smoke from his fiery "in ards," moved slowly out, dragging his rumbling load behind him over the trestle, out past Fort Robinson, where the gallant Col. Rodgers lies buried just where he fell—"in the imminent deadly breach"—storming the enemy's works. Then, as our Pegasus warms up to his work, on past the lake where we have our winter duck shooting, past Big Hill, where we go to hunt the bearded gobblers, and after two hours' steady running he pulls up hot and panting at Grand Junction. Here we change cars for Jackson, Miss., taking the Mississippi Central Railroad. In good cars, and on a smooth track, we bow along at a pretty fair lick past Michigan City, on past Holly Springs, a pretty and thriving town; both places the scenes of cavalry fights during the late unpleasantness.

At two o'clock we reach Oxford, a handsome place, although you do not get a view of it from the train. The State University is located here, and within its halls some of our most distinguished southerners have been educated. Leaving Oxford we rush on by several minor places; go right through Water Valley, quite a busy place and appropriately named; pass Duck Hill, which is in a valley and not a duck in sight, and on to Grenada, where the Mississippi and Tennessee Railroad comes in. As the shades of evening come down we arrive at Durant, where, having washed the dust of travel from our countenances, we worry down a most fearfully execrable glass of beer, and after it, as some amends, a splendid, old-fashioned, *ante-bellum*, country hotel dinner.

At ten o'clock we arrive at Jackson, and after having vainly spread our limbs and couched our heads, after the style of Lord Marmion, we are knocked up by boots, with the cry, "Train for Vicksburg." Boarding this we are rushed into the "City of Hills" as the sun rises.

Here we are assailed by a swarm of savage, bloodthirsty, impecunious lackmen, porters, hotel bummers, gamins, newsboys and small niggers. They were absolutely frantic to get at us, and we only escaped being dismembered and carried off piece-meal through the intervention of a policeman, who came gallantly to our rescue, and, with his club, beat back the horde of howling savages.

After having at the hotel partaken of an exceedingly durable beefsteak, a remarkably tenacious biscuit and a cup of tepid fluid, yeleft coffee, we sallied forth to see some friends. These we did not find, but we did make the acquaintance of one of the cleverest gentlemen in the State, who put us under obligations we fear we may never be able to repay, by taking us to visit all points of interest in and around the town, behind as fine a stepper as I have seen in many a day. Vicksburg is built on the tertiary hills where they strike the river. These hills are here upheaved in a most remarkable way, and the soil is filled with minute fossils and concretions of carbonate of lime. The bluffs cave but little, and in them are still to be seen the bomb-proofs and holes in which the citizens sheltered themselves from the hissing shot and bursting shells during one of the most desperate and prolonged sieges and defenses of modern times.

Driving through the streets we saw many handsome residences, well-built churches, and a fine court house located on the summit of a series of terraces. The streets have been graded at a considerable outlay of money, time and labor. Northeast of the town are the remains of an old Spanish fort, crowning a high bluff, that commands a splendid view of the river and adjacent country. From its grassy ramparts we can overlook the Federal Cemetery—"the bivouac of the dead"—where lie, until the last revolve, the ashes of 16,000 soldiers, the rows upon rows of headstones gleaming white in the morning sunlight. In front of us rolls the broad river, and through the trees we can catch glimpses of the fair country beyond and the villages of Delta and De Soto. Away off to the right is the mouth of the Yazoo River; to the left the little city lies bathed in hazy smoke, as peacefully as if it were never stormed at with shot and shell.

Driving back we saw the "gamblers' graves." They were buried on the side of a steep hill, through which a street is now being graded, the excavations bringing to view the crumbling bones of those desperadoes who years ago defied the law, and, when finally taken, after a desperate resistance, were lynched and buried here. South of these graves, on a high bluff that overlooks the town, is the site of another fort built by the Confederates. Here a huge gun, lying half buried in the sod, recalled a picture I once saw or read about entitled "Peace"—an old redoubt, o'ergrown with grass and wild flowers, from which protruded a cannon; in the muzzle birds had built a nest, and were feeding their fledglings. Here children had built their doll-houses—"e'en in the cannon's mouth"—and romped and gambled within the grassy ramparts—

"Made rankly fertile with the blood of men."

where erst had stood the grim artilleryman hurling the shrieking messengers of death from his smoking gun. Upon this hill a wealthy Englishman built a house after the style of a feudal castle; but it has long since been razed, and not a vestige of it remains.

As we were going to another point of interest we were met by the hotel porter, who informed us, "Dat de boat done been at de landing hour an a haf; gwine to leave stret off." Down the hill we drove, and reached the wharf just as the grumpy deck hands were about to finish unloading a coal barge. Black and ragged, and streaming with perspiration, they sang merrily at their work, inspired, perhaps, by the near prospect of a rest. As we were watching them a little tug came alongside to take away the barge. A large steamboat lay just below us, with stern up stream, from the force of a counter current, right in the way of the barge. I looked on with some curiosity

I saw it stated in a Vicksburg paper that three hundred tons of lead, mostly bullets, had been collected in and around the town since the close of the war. This lead would make nine million six hundred thousand ounces balls. God knows how many more are buried in the earth and lost in the river.

to see how the tug was going to get it out. Slowly it moved up to the steamboat until the bow was against the steamer's guards, abaft the wheel. "Go ahead on her," said the pilot. The little screw churned the water, and the huge steamer was shoved slowly around, until it lay stern down stream, out of the way. Then the barge was cast loose and loved away. Our steamer's broad stage-planks were hoisted, like ponderous drawbridges. The bell tapped, "Let go," and there was a jingling of little bells down below, a hissing of steam, a prolonged "cheow," the ponderous wheels began to revolve, and slowly we moved away from the wharf, headed toward mid-stream, swung half round, and with scarcely a perceptible motion glided smoothly down the turbid river. Now the wheels beat the water with a faster lick, yet so steadily do we move that standing on the upper deck, and looking back at the little city, it seems to be drawing away from us and fading in the distance, while the mighty steamer stands still. After a while the town vanishes from sight, lo! behind a bend in the river. Then we come in view of the beautiful little island set like an emerald in the midst of the waste of waters. A border of young cotton woods, with a growth of larger trees in the centre, give it the appearance of being evenly and skillfully terraced.

Westward on, and the fairy isle drifts far astern and vanishes from sight. For miles weird forests, the home of the black bear, the panther and the horned buck, stretch away on either side, as far as the eye can reach. Silently the mighty river rolls on, not always within its banks, eating the crumbly shores from one side and piling them up on the other—uncaring and quiet in its flow as the flight of time.

Passing these long stretches of forests, we come occasionally to a plantation with little darkies playing merrily just on the very brink of the treacherous flood, and, if we are running near shore, jumping into skiffs and dugouts to be "rocked in the cradle of the deep" on the waves the steamer's wheels are raising. If a great many of them don't go to furnish food for the catfish, then there is certainly a special Providence which protects the small Mississippi River nigger.

The river is very full, and it almost seems that a quart of water poured into it at its source would overflow the banks down here. Still the farmers are working away in the hope of a "fall" as serenely as if they were a thousand miles inland.

The Mississippi River is, after all, as our Yankee brethren would say, "a pretty considerable crick;" thirty-two hundred miles long, in round numbers; navigable twenty-four hundred miles, below and above the falls of St. Anthony, forming part of the boundaries of ten States, draining with its confluent an area of a million and a half square miles,—a sort of continental aorta, having for its tributaries fifteen hundred navigable branches. The vast alluvial plain through which it flows has an area of over thirty-two thousand square miles. In some places, almost illimitable forests stretch away on either shore, filled with many kinds of game, and the lakes and lagoons in these forests are stocked with fish, and teem with wild fowl. Its vast littoral plantations produce in rich abundance cotton, corn and cane, and all the fruits of a semi-tropical climate. Fair cities adorn its banks, and crafts of innumerable kinds are upborne upon its broad bosom.

Plowing and hoeing, we pass dingy steamers leaving in tow great fleets of coal barges, sometimes running close by them, again leaving them far away on the other side. Pass slowly floating flatboats, whose crews are always cocked and primed to fire a broadside of Billingsgate at you on the least provocation. Pass immense "sawyers" lifting themselves from the scotching waters like gigantic saurians, wet and glistening, then plunging out of sight again. We see in some places the tawny waters stirred by some mysterious force below, boiling like huge caldrons, and occasionally breaking in a long wave from the steamer's prow, but there is no sound with it. The mighty river is mysterious and silent, telling no secrets, striving always, in spite of Captain Fads, to keep its mouth shut. Again we pass long reaches of desolation.

The giant gulls hung thickly with a funeral drapery of waving moss. Not a sound. Not a sign of animal life, save now and then an egret, with plumage white as the wing of an angel, solitary and alone, flies slowly ahead of the gliding steamer; and once we saw two bald eagles winging their way above the wooded wilderness.

Thus steaming on through the golden hours of the glorious afternoon, we pass, at sunset, Rodney, with its glittering spires, set like a gem in the green hillside. But we leave it far away to the left, a long bar in front shutting it off from the river.

As darkness comes down over the waste of woods and waters we descend into the luxuriantly furnished cabin that stretches back like a gilded tunnel from fore-castle to stern, bright with the lights from branching chandeliers. But steamboat travel is not what it was in the *ante-bellum* days. Then those chandeliers flashed down on crowds of "fair women and brave men"—brave at the bar and valiant at the board—on a regiment of white jacketed mulattoes, who came and went noiselessly, bearing sumptuous viands and sparkling wines, and waiting on the well-filled tables. After the tables were cleared the merry dancers tripped the light fantastic toe to the sound of the "violin, fute and bassoon." Forward, the planter with plethora pocketbook indulged in a "little" game of "draw," and there the gay gambler disported himself, and sported with yu sucker. But "Troy and the glory of the Trojans is no more." The crowd is reduced to a score and a half, and the "little" game of draw to one of "five-cent ante," and he of the silver box and the four aces must seek other fields and pastures green.

'Tis true the colored band came out as of yore, and discoursed some sweet music; but there were not enough ladies in the cabin to form a quadrille, and "the elephant had tramped on every pocket book" aboard. So they could not even get up a game to keep up appearances. As the evening wore on we approached Natchez, and at ten o'clock a long row of lights, rising one above another from the river to the summit of the hill, showed us that we were in sight of the town, and had almost reached our destination.

A little further from our steamer set forth a most diabolical and unearthly yell from its three-barreled whistle, then the little bells tinkled again. The engines stop, and we move slowly up to the wharf. The gang-planks are lowered, and going ashore we run the gauntlet of howling hecklers—dive head foremost into a carriage and we are driven away to the "Marsh House" on the hill. Natchez, like Rodney and Vicksburg, is built on a bluff, at one of the five points where the tertiary hills extend to the river. It was settled by the French under D'Iberville about the beginning of the last century, and takes its name from a noed tribe of Indians who then dwelt here. Thirty years after the town was settled it was totally destroyed by the Indians, who were ultimately defeated and banished. After having passed into the possession of the Spanish it finally became an incorporated city under the United States about the beginning of the present

century. This portion of the country in early times formed part of French Louisiana. The right to the Mississippi Territory was disputed between the French and Spanish, and afterward between the French and English. It was ceded to Great Britain in 1763, and in 1783 fell to Spain as part of Florida. In 1798 Spain relinquished it to the United States.

Many interesting traditions connected with its early history are told, and the site of Fort Rosalie is still pointed out to the stranger. Natchez is one of the loveliest places in the South; but lacks that stir and bustle characteristic of a railroad town. It has only one railroad, that runs somewhere inland—or is to run somewhere—built like the present style of ladies' dresses, narrow gauge. It has no manufactories; but nowhere in the South will you find more evidences of wealth and refinement, as shown by the elegance and taste displayed in the private residences and grounds.

Nowhere will you find better kept streets, better or more imposing public buildings, more handsome and stylish ladies, and last, though not least, nowhere will you find more well-bred sporting dogs. Somebody says: "Show me a man's friend and I will tell you what manner of a man he is." Show me the dogs in a town and I will tell you what manner of people inhabit it. When you see all the dogs in a place mongrels you may be sure there is a very large element of *our* in the population.

Natchez has the handsomest Masonic Temple in the State, a fine Court House, a magnificent cathedral, and an admirably conducted Orphan Asylum. Some pretty churches and many truly elegant private residences, notably the Shields Place, and the Stanton Place, the latter one of the finest residences in the South. Broad streets intersect each other at right angles, shaded by beautiful trees.

Everywhere in the suburbs you see yards and gardens gorgeous with flowers and foliage, and redolent of perfume. Elegant stores and tasty shops, filled with costly merchandise, give to the business portion of the town a city-like air. A beautiful little park, shaded by masses of foliage and richly carpeted with grass, lies in front of the town on the bluff overlooking the river.

From this charming spot you can see the river stretching away on either hand, can look down the chimneys of the houses in Natchez-under-the-Hill. Can see lake Concordia beyond the river, and the rich plantations in redeemed Louisiana far away to the southwest. It is a magnificent view; river and lake, cultivated lands and boundless forests—far as the eye can reach—spread like a gorgeous panorama before you.

From this bluff perchance the redskin fire-worshiper marked the coming of the pale faces' boats upon the river. What a charming spot for the Natchez youth to woo the gentle maiden. If she would not let the word be "yes," then he could jump off himself, or better, perhaps, push her off. North of the town stands a dilapidated U. S. Marine hospital, that is now being repaired and renovated by some religious denomination North with a view of making it a Normal School for the education of young colored men for the ministry. Beyond the hospital is the Federal cemetery, beautifully situated and tastefully laid out. The surface of the country is broken hereabouts with deep depressions, called the "Devil's punch bowls." Some of them are one hundred feet deep, and as many yards in diameter. Imbedded in the sloping sides are found the bones of the mastodon.

To an eminent physician, long a resident of Natchez, to whom I here gladly record my obligations, I am indebted for much valuable information relating to this interesting town.

On a high bluff that commands a fine view of the river and surroundings is the site of the Suzette mansion, destroyed during the war, and under the hill not far away is "Brown's Garden," enchanting in its rich profusion of trees and shrubbery and flowers.

"There the young fountains with sweet perfume blow;  
There feathery palms their pendant clusters hold,  
Like foxe's bristles, moving to and fro;  
There every evening comes the after glow,  
Tipping the leaflets with its liquid gold."

South of town near the river is a rectangular wall of brick inclosing a small space of ground, over which, from the swaying branches, long tresses of moss hang solemnly, and the very trees seem bending down in sadness. Within this inclosure, on a plain granite headstone, is the following inscription:

SERGEANT S. PRENTISS,  
Born at Portland, Maine,  
Sept. 30th, 1803.  
Died at Natchez  
July 1st, 1850.

Do not think me a Vandal or a relic hunter when I tell you that from a carved buck's head in my little parlor droops a long festoon of gray moss that once waved in sadness above the grave of him who, living, held all hearts entranced by the power of his eloquence and, dead, leaves the charm of his name an everlasting heritage to the sons and daughters of his adopted state. GUYON.

June 10, 1877.

For Forest and Stream and Rod and Gun.

LUNGE FISHING AT LAKE MEGANTIC.

ON the 30th of May last I left Sherbrooke by the 4 p. m. International Railway train, reaching Bury, thirty miles distant, about 6, and Lingwick, twelve miles further by stage, at 8 o'clock. My companion was Captain Thomas, of Melbourne, P. Q., one of the Canadian Wimbledon rifle team for 1873 or 4, one of the elect for the present year, and one of the best and coolest amateurs with rifle, shot-gun, billiard ball and fish spear I ever met. The fish-spear was in our juvenile days, some twenty-five years since, when large catches were the criterion of a good fisherman, and fishery laws in embryo. Next morning, leaving Lingwick, we reached Winslow, fifteen miles, for breakfast, and having engaged a fresh team, after fifteen miles more of the worst road I ever drove over, reached Megantic Lake about 1 p. m. Our old guide, Andrew Jackson Foster, had engaged to meet us, but as he wasn't on hand we prepared to make ourselves comfortable over a pannikin of tea, some hard-tack and sardines; but before the tea was ready Andrew Jackson rounded the Major's point, three miles distant, and was soon helping us to dispose of our luncheon. He brought us some nice lunge, caught in trolling through the lake, and explained that the rough water in Victoria Bay had caused him to make a slight *detour*—no, he didn't say *detour*, but that's what he meant. After a little delay in packing ourselves and traps all in one boat (the Captain's legs are long and he had to knot them),

we made our offing, steering directly for Major McMinn's summer box, where we unfortunately found the Major, who accepted our invitation to camp with us that night at Rocky Point, four miles further on, so that by dividing crew and cargo we got along nicely, reaching camp quite early. The Major held a position in Edinburgh similar to that of our barrister or solicitor; is a well-educated, well-read, genial companion, served in the Confederate army, but like the immortal Weller, having decided "to retire from life and take a pike," picked up the wreck of his substance, wended his way to Megantic Lake (now his summer retreat), where, by reading and taking an occasional lunge instead of a pike, and in taking which he has a very taking way, he leads a sort of modern recluse life, happy, however, to see his friends when they call, and happier still to oblige a friend when in his power. I shall not forget the kindness with which (last September) he placed his little shanty (Sunnyside) at the disposal of myself, wife and family, and where we made our headquarters for nearly a month. Sunnyside is the most beautifully situated of any spot on the lake shore, fronting on a lovely beach of water-worn quartz and colored gravel. This gravel has been carted to Winslow, twenty miles, to be used for roofing purposes, although lakes and rivers bordered with gravel abound within a quarter of the distance. The Major has displayed great taste in arranging gravel walks through the small patch of cleared ground surrounding his domicile, and the stumps are carefully concealed by bark-boxes of native and other vines and flowers. Rows of the wild red-cherry tree fringe the principal walks, and if you want to see an illustration of the wilderness being "made to blossom as the rose," visit Sunnyside in autumn. The view southerly of the lake, and the continuation of the Green Mountain range in the background, spotted with shadows of passing clouds and the lovely tints of an autumnal foliage, is magnificent, and one in which the lover of nature will constantly see new beauties. I have seen it on many occasions at different seasons, and only to admire it more and more. *Mais venons a nos moutons*, or, rather, *nos poissons*. We have reached our camp, and—

"Of hemlock boughs he made our couch,  
A bed for coughs and colds consulting;  
I have some biscuit in my pouch,  
A salmon trout I've caught in trolling"

(or rather old Foster las), with a frying pan full of which, and a kettle of stewed, minced collops, with the usual accompaniments, we gladly satisfy the cravings of the inner man. It is the first meeting of Foster and the Captain since Foster proposed to play "just eleven games of euchre" at our trout pond camp several years since, and a good many old stories have to be revamped and new ones introduced. Andrew Jackson's stories are abundant, good, and generally original; probably because he has lots of time to think them over, although he says he "can't rickellect and tell a story as he used to could." It was late when we spread our blankets, and just before I winked for the last time I heard Foster telling of some place in Vermont where they cut no hay, raised lots of cattle, and manufactured nothing but shingles. He said they put green goggles on the cattle and fed them on the shingle shavings. Next morning the Major left us after catching five or six fine lunge. A Mr. Howard, an Isle of Man clergyman's son, who camped with us the previous night kindly helped us with our traps through the lake and up the Spider and Arnold rivers to our next camp at the outlet of Rush lake. In passing through Moose Bay opposite the residence of Henry Ryan, Esq., we struck a school of trout disporting themselves on the surface, and out of which the Capt. took half a dozen, running one to two pounds each, by throwing and drawing in the spoon (one of Skinner's fluted bait, advertised in FOREST AND STREAM).

Fishermen are proverbial for hospitality, and we can vouch that Mr. Ryan is no exception to the rule, as the occasional supplies of milk and butter of which we were the recipients will bear substantial evidence. We camped at Rush lake until the 5th June, during which time we fished the Arnold and Spider rivers and Spider lake, not catching any more bass and few more trout than we required for camp use. The time, and then only, when a bass is delicious as a pan fish is immediately after he is caught. Having satisfied ourselves that Megantic lake was our "strongest hold" at this early season, we struck camp and pitched our tent near Rocky point; and here I will give you the result of our last three days' fishing, trolling alone: Our catch on the 5th was 20 lunge, 90 pounds; 6 trout, 2½ pounds; total, 93½ pounds. On the 6th, 21 lunge, 103½ pounds; 4 trout, 4½ pounds; total, 108 pounds, and on the 7th, 7 lunge, 25 pounds; 1 trout, 1 pound; total, 26 pounds.

The lake being very rough last day we could only troll for a short time in the morning. Next day we started home with a flour barrel full (about 300 pounds) lunge and trout. We caught several in going down the lake. The spoons used were principally the fluted spoons above referred to, and a rounded oblong spoon, having a bronze sealed convex side with bright brown projecting eye at end and red concave side. I do not know the maker's name. The latter is the best troller for lunge, the fluted next. Mann's Syracuse double spoon, small or medium size, I have found best for trout and the larger size for bass. I like the action of the two hook (Mann's) troller best, as I have generally found the fish more securely hooked. I do not think I ever lost a bass with one unless from broken tackle, and I have caught hundreds in Spider lake in August and September. The largest of our lunge weighed 18 pounds, and the average weight was 4½ pounds. We shall probably visit Megantic and Spider lakes the latter part of Sept., principally for moose hunting, when we hope to be accompanied by our old reliable guide, Andrew Jackson Foster. Since the above trip I have been at St. Leon Springs, north of the St. Lawrence, within 20 miles of which there is capital trout fishing, and of which I hope to furnish FOREST AND STREAM an account at some future day. Sherbrooke, P. Q., July 20, 1877. D. THOMAS.

SLAP JACKS FOR CAMPERS.—"Quill Driver" sends from Milford, Mass., the following receipt:

Flour, one small coffee-cupful; Indian meal, 3 small coffee-cupfuls; sugar, 1 tablespoonful; salt, 1 teaspoonful; Horsford's yeast, one measure each acid and soda; the measure comes with the yeast, which is a dry powder. For convenience of transportation, the ingredients may be mixed dry in the above proportions, moistening with water or milk the amount desired for use at any time until the consistency of thin dough is attained. Cook with a well-greased griddle or frying pan.

—Five elephants, belonging to the London show, broke the Sabbath by going in swimming in the Hudson at Poughkeepsie the other day.

Fish Culture.

THE CORREGONI.

THEIR NATIVE HISTORY, NATIVE WATERS, ECONOMIC VALUE, AND IMPLEMENTS CONNECTED WITH THEIR PRODUCTION.

No. 24—PART II.

ALL of those Northern States, bordering on the great Lakes, have jointly engaged in stocking the lakes with whitefish by means of artificial culture. Michigan is planting annually millions of fry, while Minnesota and Wisconsin are also engaged in augmenting their whitefisheries by artificial means. Ohio has erected a vast hatchery, which is almost exclusively devoted to the hatching of whitefish for stocking Lake Erie. The Empire State is also supplementing the natural process by stocking Lake Ontario largely with whitefish, under the direction of Superintendent Green of the N. Y. Commission. The very atmosphere of that great State is fishy from the energetic labors of an enlightened commission. New York has a large number of interior lakes which are being planted with whitefish, which are found to be entirely at home.

Iowa, too, is coming to the very fore-front of fish culture, and her Legislature, like that of Michigan, appreciates the value of the art, and responds to the calls of her industrious commission with princely appropriations year after year. Her fish officials, supplemented by the labors of the Hon. B. F. Shaeed, Superintendent of the State Fisheries, are dealing with the problem of artificial culture with wonderful success. The lakes of the State are being planted with whitefish, where they take kindly to their new homes. Well may the Iowans feel proud of their State. It is truly a "land of the beautiful," a cognomen bestowed by the red man, who must have understood the full import of the name he employed to describe a land of crystal lakes and beautiful prairies, lying in pristine loveliness between the two broad rivers in the loveliest of valleys. The Iowa commissioners are not only planting their streams with brook trout, but salmon trout—the *Salmo quinat* and *S. salar* of the Atlantic coast—and shad which they expect to migrate to the Gulf of Mexico and return to those places in the rivers wherein they were cast in their fryhood. The whitefish fever has also reached California, where are many clear lakes well adapted to the production of this fish: gold-renowned and mirrored with sparkling lakes and rivers, whose shingly bottoms scintillate with shining ore, present magnificent natural facilities for fish culture. Attempts to increase the fruitfulness of those inland waters and sea-fisheries have been crowned with success. We would not individualize the efforts of the older States to the exclusion of the youngest born into the fish-cultural guild. Virginia, Kentucky and Georgia, and even Little Nevada, are wheeling into line and addressing themselves to the work of replanting their exhausted and impoverished fisheries. And while we are gratified in recounting the efforts of our people in solving the problem of cheapened food, we hope ere long that the whole sisterhood of States will engage in the practice of this great industry, second only in value in the production of food to agriculture itself. It is proper at this stage to introduce some of the prominent apparatus now in use in fish culture. The "Clark Apparatus," in which trays are used with screens of wire in boxes, has already been described in a chapter in connection with the Coste and other trays, to which the reader is referred. It is alike adapted to the hatching of salmon, brook trout and whitefish eggs. One of the inventions much in use is the "Holton Tray Hatching Apparatus," developed by Marcellus G. Holton, of Rochester, N. Y. (now deceased), assignor of one-half his right to Seth Green of same city. The utility of the Holton trays consists mainly in employing an upward flow of water through layers of spawn upon a series of trays, entering the bottom of the box and emerging from the upper end, thus passing through this series of trays. The bottom of the box holding this series of trays, is like a mill-hopper, giving a space where sediment may settle without detriment to the spawn. The apparatus may be seen, as illustrated, in the Patent Office Report of 1874, covered by letters patent No. 136,894. The invention consists of a wooden box or case made square, and provided with a depression at the bottom for sediment, which may be removed at any time by a discharge pipe. There is a channel formed entirely around the case near the top. The outer walls of the channel are slightly elevated above the upper edge of the case proper. This arrangement permits a gentle overflow from all sides of the tray-chamber, near the bottom of which is arranged a ledge upon which the trays rest. These latter consist of shallow rectangular frames, each of which is provided with a fine wire gauze bottom, upon which the spawn is spread and held during the hatching. There is a suitable metallic or leather strap attached to two opposite sides of the bottom tray, in each case of trays, whereby the whole set may be raised or lowered when it becomes necessary to remove them from the case. Each side of the case has a vertical recess cut to receive these straps. The latter are perforated to correspond to the depth of each tray, and the straps, if made of metal, may be provided with a pin; but if leather straps are used, they may be hooked upon a fixed pin at the upper edge of the case. A pipe conducts the water from the fountain or spring into the bottom of the case, or a water-chamber may be formed entirely across the side of the case, and also across the bottom. The latter construction is rather preferable for all except the first case in each tier, and in fact would not be

objectionable for that. To insure a complete distribution of the upward flowing current of water through all parts of the trays, a deflector is provided, which may be spherical, flat, or of any other shape. The deflector is supported by standards over the jet, which breaks the current and distributes the water more evenly over the trays within the case. The discharge, or trough, conveys the overflow to the descending water channel attached to the next succeeding case. The case can be made of any desired size, but the inventor preferred them eighteen inches or two feet square, and from two to four or more feet in height, according to the amount of fall afforded by the fountain or spring. The cases containing the trays may be arranged in tiers the entire length of the floor of the hatching-house, and the water overflowing from one made to pass into and through the next succeeding one to any desired extent as regards numbers. The method of spreading the spawn is most convenient. The lower tray is suspended, when it is to be filled, in the position occupied by the upper tray. When the case is full the spawn is spread upon it evenly over the surface of the wire gauze in a suitable quantity. The tray is lowered sufficiently, by the straps, to permit the insertion of another tray, which is treated in like manner, and so on until the case is filled. In reversing the process by raising the strap the span of one tray at a time, the young fish can be removed, and the water allowed to flow in, spreading the spawn or removing the fish, without detriment to either spawn or young fish. This plan is intended more especially for winter hatching, in hatching trout or salmon, or for hatching whitefish, or any kind capable of artificial culture. For plates, and a more extended description, readers are referred to the United States Commissioners' Report for 1872 and '73, page 580, *et seq.* To those persons engaged in fish culture on a large scale, the apparatus invented by Mr. John Williamson, Secretary of the California Acclimatizing Society, will be found to be one of the most useful hatching devices invented by the Piscicultural Guild. It is denominated the "Double Rifle Hatching Box." The invention consists of a long trough, six or eight inches deep, and eighteen inches wide inside. This is divided into compartments twenty inches long in the clear. Into each a box holding five trays are placed nineteen and a half inches long, and eighteen inches wide, with a frame three-fourths of an inch thick and one inch wide, with a wire bottom, having eight meshes to the inch, or a greater number of meshes to the inch, if smaller eggs are to be hatched. Each box of five trays will hold 20,000 eggs, and six continuous boxes will hold 120,000 eggs, or twenty-five boxes will hold a half million of eggs. Where room is of importance, this box is certainly very desirable. The compartments holding the trays are of half inch ends and one inch bottoms. The ends are five inches high. The water is made to flow in under the upper end, and out over the lower end. By this means all the eggs are thoroughly covered by constantly aerated water, and less sediment is deposited on the eggs. The end of each box at the upper end of the trough is made higher than the lower end, to cause the water to flow in at the bottom of each box and out of the top. Of course, persons desiring these patented boxes, or other apparatus, must purchase or otherwise honorably obtain the right to construct and use them. The "Ferguson Jars," invented by the energetic Fish Commissioner of Maryland, are a valuable acquisition to the piscicultural apparatus used for hatching. These jars are made of glass, and are capable of holding two thousand eggs each. The eggs are placed upon circular screens made of fine wire, and the jars are made to contain nine each. Each screen is supported by the handle of the lower screen, and each jar is provided with a tin cover, a larger cylinder than the jar, which excludes the light. The water is introduced at the bottom of each jar by a rubber tube connected with three-eighths inch spicket, over which the tubes are slipped for introducing the water into the jars. The water after coursing upward among the screens passes from the upper edge of the jar through a like glass nipple into a tube, passing downward to the bottom of the next jar, and so on through the whole series. It would seem that this jar from its compactness, and from being transparent, so as to enable the manipulator to watch the progress of hatching and the detection of unimpregnated eggs, commends itself to the entire guild of fish culturists. The hatchlings drop through to the bottom of the jar; from thence they can be easily removed to the nursery trough, and emptied without the possibility of injury. "The Druid Hill Hatching House," of Baltimore, the property of the State, with its magnificent appointments, consisting of the most approved apparatus in use, their swift steamer for ready conveyance, and an unending supply of water fairly represent the progress of fish culture in Maryland. With her enlightened and energetic commission, and grand natural possibilities, she must soon become pre-eminent in the practice of fish culture. Besides the introduction of the *Salmo gairdneri* of the Pacific coast, and the *Salmo salar* of the rivers and coast of Maine into her inland waters, European carp are now being multiplied for planting in the warmer and sluggish streams of the State. The only report made by the Fish Commissioners since the establishment of the Commission was made during the Centennial year, and it is the most valuable of any yet submitted by States engaged in fish-culture. Combined with the report is a list of marine and fresh water fishes of the State, of great importance to those who are engaged in the study of ichthyology. Messrs. Uhler & Lugger, naturalists, have prepared a descriptive catalogue, so valuable in point of accuracy, that if each State Commission would add like descriptive lists to their reports much desirable information would soon be collected regarding the lethargic Fauna of the United States.

Probably no invention since the introduction of fish-culture into our country equals that of Mr. Samuel Wilmot, of Newcastle, Canada, as a white fish hatching apparatus. The can, or hatching box, is eleven inches in diameter and six inches deep. Into this are placed 100,000 white fish ova, as soon as taken from the fish and vivified. It is then put into operation by turning a small faucet, which lets in one-fourth of an inch stream of water. All unvivified or diseased eggs are carried away, and the sound ones, without spot or blemish, are left as

perfect as when taken from the fish, aside from the change produced by the process of hatching. Hand-picking is therefore almost entirely done away with. Mr. Wilmot says: "These self-pickers and cleaners, enough of them to hatch five or six millions of whitefish eggs, will save the labor of four or five men daily, and keep them cleaner than it is possible to do with any amount of hand-washing. The practical working of them is all that could be needed." Its use can be secured undoubtedly by buying the apparatus or by the purchase of the right to manufacture and to use. This apparatus is only adapted to the hatching of white-fish. Messrs. Mather and Bell have invented another hatching apparatus in the form of an inverted cone, containing screens which can be suspended or hung in the hatching house by a bracket, the can being supplied with water at the bottom by means of rubber tubing connected with the tank or fountain, and then passing from the top through a like rubber connection, enters the bottom of another and soon through the whole series, more or less. Inventive genius seems to be running in the direction of developing apparatus, such as we have described, and also in the direction of inverted cones like the Bell and Mather apparatus, for the reason that these cases may be so located in the hatchery as to economize space. Mr. Owen Chase and Monroe Green have also invented similar hatching cases, which work on the same principle as those already described. It is quite apparent that inventive genius is destined to achieve as much in the production of labor-saving implements, as in other and older industrial fields. The art as practiced to-day is young. When it shall have become a giant among the great productive industries of our country, its historic pages will be emblazoned with as many achievements in the field of invention as in any of the older circles of human labor. We may look for a wider application of the art of fish culture in the near future, for it is destined to supplement nature in the artificial production of a larger number of species of both marine and fresh-water food-fishes. The present accessories for vivifying ova and hatching will no doubt be supplanted in the near future by other and superior agents. The original plow of agriculture was an uncouth implement, viewed from the standpoint of to-day, and was a representative instrument of field culture when the art was young. So it will be in the coming years of fish culture; the first agents used were hastily improvised and will serve their day, and must be set down as rude instruments, employed when the art was undeveloped. Progress in any art will never stand still. Busy brains and busy hands are ever acting in the direction of abridgment of toil. We are justly proud of the advancement of pisciculture in its first decade of years on this continent. It has achieved a noble success, all honor to those men who first labored for the introduction of one of God's greatest blessings, and bestowed it upon the American people. The first impulse given to the art does not abate "one jot or tittle," but is pursued with constantly anguishing and increasing fervor. To-day the operations of the United States Fish Commission embrace not only a larger field of operations, but commissions in two-thirds of the States are bending all their energies to fertilize every inland stream.

Sandwich, Ill. NATHAN E. BALLOU, M. D.

**TO PRESERVE FISH SPECIMENS.**—To preserve fish and similar natural history specimens, hermetically seal them in vessels containing a preparation consisting of one-third alcohol, one-third glycerine and one-third water. To prevent injury from chafing wrap the specimens in thin muslin or other material, or pack with tow. This method was discovered and employed by Mr. J. G. Swan, of Port Townsend, Washington Territory, while acting as Centennial Commissioner, and has received the indorsement of Prof. Baird, who recommends also the addition of a little borax, which brings out the strength of weak spirits. Specimens prepared in this way and sent from Port Townsend, when received in Washington preserved their color and the lustre of the eyes as bright as when taken.

—Three hundred thousand young shad have been placed in the Passaic River below the Dundee dam. They are expected to be fit for catching in about two years.

—Thirty-two States and six Territories have been directly benefited by the introduction of fish into their waters.

—A spoonful of vinegar should always be put into water in which fish are boiled.

## Natural History.

### THE "BOWER BIRD" OF NEW GUINEA.

THE various habits practiced by birds in their daily life, and their often peculiar economy, reader our feathered friends, to the observant naturalist, the most interesting of beings. Each family has its own customs; often a genus is known by some especial habit, and not infrequently a species can be recognized by some curious manner it may have of carrying itself among its fellows, or a particular finish it may give to its nest. As I have noticed that among your contributors there are many keen observers of bird life, it has occurred to me that perhaps it may not prove uninteresting if I give an account that has but lately reached Europe of the strange habits of a certain bird in New Guinea, which will read perhaps more like fiction than sober truth, but of its perfect accuracy, there is no reason whatever to harbor a doubt. It has been for a long time known to ornithologists that a certain genus of birds (*Chlamyodora*) existed in Australia which were accustomed to erect structures in the shape of tunnels. These were built of reeds and twigs, and were sometimes a couple of feet, perhaps more, in length. That these could not answer in any way for incubation was evident at a glance, and it was a puzzle for a long time what use they could be put to by a bird. The ground in front of the so-called "bowers" was usually covered with shells of different kinds, bones, and frequently feathers of various colors, generally very bright ones. After patient watching, it was ascertained that the only rea-

son the birds erected these "bowers" was to use them as *play-houses*, and the little creatures were seen amusing themselves by chasing each other in and through them in a sort of feathered game of "tag," and the shells and feathers were only so much ornamentation to their play-grounds. That they were not nests, was sufficiently proved by finding a proper structure with the requisite eggs, placed by the birds in a tree. Some three years ago, when engaged upon my work on the Birds of Paradise (to which family these "bower-builders" belong), I received from the Director of the Royal Museum in Leyden, Holland, a dull-colored curious-looking bird, which had lately been obtained in New Guinea, and which I at once saw belonged to a genus hitherto unknown. It was evidently a relative of the "bower bird," differing essentially, however, by characteristics not necessary to describe here, and I made up my mind it would also build a "bower," though of course what kind of a structure it might be I could not even conjecture, and besides mentioning my belief I was obliged to publish my book without further details. Within the past three years, however, some very adventurous Italian explorers have been investigating New Guinea, mainly in search of natural history specimens, and one of them, Signor Becceri, found this little brown bird, which I had called *Amblyorhynchus inornata*, and also discovered its "bower." This is a most extraordinary affair, and consists of a perfectly circular cabin, built principally of the dry twigs of an epiphytous orchid (*Dendrobium*), measuring a little over three feet in diameter, and supported by a single central pillar. Before the entrance is a beautiful garden, of rather larger dimensions than the cabin, made of the greenest moss, and ornamented from time to time with brilliantly colored flowers and fruits, such as flowers of a lovely species of *Vaccinium*. This wonderful habit of the bird is so well known to the Malay hunters that it is called *Takan-kabou* or *Gardener* by them. No more interesting fact has been learned in field ornithology for many years, and it is wonderful to know that a bird, for its own amusement, has the instinct and ability to build a house with a central support for the roof, and then the taste to beautify its surroundings with gaily colored flowers. In respect to this particular species it proves two things, that skill is independent of strength, and that one need not be handsome to appreciate beauty, for the bird does not possess a single gay-colored feather in its body.

D. G. ELLIOT.

Paris, France.

**SOUTHERN MAMMALS AGAIN.**—Letters have already appeared in our columns from writers who took exception to Dr. Rawlins Young's "Notes on Southern Mammals." The *New Orleans Times* criticizes severely, disputing the notes regarding deer and bear in toto, which called forth the following response from the doctor, which sufficiently explains itself:

CORINTH, Miss., July 12, 1877.

*To the Editor of the Times:*  
Sir.—In your issue of the 9th inst. you take me to task for some alleged inaccuracies in my notes on Southern Mammals, published in *FOREST AND STREAM* AND *ROD AND GUN* of a recent date. These notes were gotten up with reference to mammals found in the following named counties in each of the designated States: Lawrence, Franklin and Cobb, in Alabama; Shelby and the counties east, to the Tennessee River, in Tennessee; De Soto and the counties east, to the Alabama line, in Mississippi; Crittenden and counties lying west of it, to White River in Arkansas. There are a few deer in the counties named in Alabama. They are certainly "very rare" in the designated portion of Tennessee. There are a few in Hardin and McNairy, and they are occasionally found in Hardeman, on Potter's Creek and Muddy, but there is, perhaps, not a deer, "native and to the manor born," in either Shelby or Fayette. There are deer in De Soto, and a few in Tippah and Old Tishomingo. Ten years ago they were numerous in this county, but they have been hunted in season and out of season by every lazy darky and sealawag who could get a \$3 shot-gun or musket, until they are well nigh exterminated. "Black bear rare in Mississippi." One was killed fifteen mi. N. of from this place in the year 1850, and a stray one was seen near here last summer. "Rare in Mississippi." I am aware this deer, and bear too, are exceedingly numerous in the great Mississippi-Yazoo delta, albeit I have not seen any of the *Ursus richardsoni*, that are accommodating enough to "stay in the fields till a small boy can run and inform the manager and let him come down and kill the animal." The stumpy-tailed plantigrades that I have tackled set more store on their lives than do those that dwell in "Sweet Coahoma on the riverside," and always fought long and valiantly before yielding their souls. Even if bear were plenty here, I do not believe that the Cireum Corinthian small boy could be induced to stay in the fields and watch for them. The small boy up here is "powerful" afraid of bears. In making up these "notes" I have confined myself to those counties with which I was most familiar, and I believe that on the whole they are correct. If not, send up a "special commission" and we will submit to an investigation.

RAWLINS YOUNG.  
[These notes were prepared for the new work of Dr. Coues, who kindly allowed *FOREST AND STREAM* to publish them in advance, and doubtless had forgotten that they applied only to certain districts of Alabama and Mississippi. We are all liable to errors.—Ed.]

**REVERSED SHELLS AGAIN.**—Our correspondent, Mr. James Lewis, writing from Mohawk, N. Y., says: "I have seen the shells which induced your correspondent, T. W., of Leesburg, Va., to inquire about 'reversed shells.' The specimens sent by him are, as conjectured by Mr. Gray and myself, a species of *Physa*, probable *P. uvrea*, Lea. I submit this information thinking it may be some gratification to many of your readers to know just what all this matter really means."  
[Mr. Lewis has our thanks for this information which admirably supplements that which he has previously furnished.—Ed.]

**A PLEA FOR THE KING BIRD.**—Many persons believe that the king bird is a destroyer of the honey bee, and therefore exterminate them whenever seen near the hives. If, after they have slain one of these sprightly, pretty birds, they will examine the crew, they will find nothing in it in the shape of bees; but they will find the insectivorous pests of the bee-hive—worms and bugs only. *Experientia docet.* Two of these birds nested close to "Eagle's Nest" this year, and I have closely watched them and their habits. As a guardian to the poultry yard, the king bird has no equal. I raise a great many chickens, turkeys and ducks—geese I abominate in the same state. And hitherto the chicken hawks have nearly decimated my stocks, and I have had to keep both shot-gun and rifle loaded all the time to be ready to repel intruders or avenge the loss of my favorites. This year my king birds have done the work for me. No sooner does a hawk appear in the vicinity than the male king bird, with a shrill cry, starts for him. He soon reaches the hawk's vicinity, and the latter, which cannot avoid its fierce peckings, is only too glad to get away into the thickest of the forest without a chicken dinner. I have seen this done not less than forty or fifty times within six or seven weeks. The little hero follows the hawk until there is no danger of his return, and then comes back to have a glorification with his mate on the apple tree near my cottage. Never again will I pull trigger on the game little king bird. He is a hero among heroes, and I honor his pluck. E. Z. C. JUDSON.

*Eagle's Nest, July 5, 1877.*

**A MURDEROUS SEA FLOWER.**—One of the exquisite wonders of the sea is called the opolet, and is about as large as the German aster, looking indeed very much like one. Imagine a very large double aster, with numerous long petals of a light green, glossy as satin, each tipped with rose color. These lovely petals do not lie quietly in their places like those of the aster in our gardens, but wave about in the water, while the opolet clings to a rock. How innocent and lovely on a rocky bed. Who would suspect it could eat anything grosser than dew or sunlight? But those beautiful waving arms, as you call them, have another use besides looking pretty. They have to provide food for a large open mouth which is hidden deep down among them, so well hidden that one could scarcely find it. Well do they perform their duty, for the instant a foolish little fish touches one of the rosy tips he is struck with poison as fatal to him a torpedo blast. He immediately becomes numb, and in a moment stops struggling, when those beautiful arms wrap themselves around him and he is drawn into the huge greedy mouth and is seen no more. Then the lovely arms uncloze and wave again in the water, looking as innocent and harmless as though they had never touched a fish. OSOAR SPITZER.

—A correspondent of the *Nashville Rural Sun* describes a woodchuck recently captured near Pinewood, Tenn. "The two lower front teeth are two inches long, and protruded outside, and pressed against the nose when the mouth was closed. One of the upper ones had curved inward and formed an almost perfect ring, the point entering the roof of the mouth and piercing the skull just back of the root of the tooth, where it lapped it, completing the circle, which is one and a quarter inches in diameter. The upper tooth had a similar curve, but came in contact with one of the lower ones, by which it was ground off one inch from the base. The animal was much emaciated, having sustained itself under difficult ties."

Instances of this nature are not infrequent. The teeth of all rodents have a constant lateral growth, requiring constant grinding to keep them of the proper length. When, by malformation or accident, the teeth are so misplaced that they cannot be ground down, they grow to great length, protrude from the mouth, and assume many curious shapes. Often, as in the case here described, they ultimately cause starvation, and gain for the victim a happy reward of dusty immortality upon the shelves of natural history museums.

**RACE BETWEEN A PIGEON AND A LOCOMOTIVE.**—The French police the other day wished to forward as quickly as possible an important document from Dover to London, a distance of seventy-six and one-half miles by the railroad, and seventy miles as the crow flies. It was determined to make a trial of speed between a carrier pigeon and the "Continental Mail Express." The police secured a "Belgian voyager" and the railroad company selected their fastest engine. The pigeon and the train were started at the same moment. The bird immediately rose to a great altitude, for a minute or two circled about, and then took a straight course for London. By this time the train was at full speed, going at the rate of sixty miles per hour—a mile for every minute. The delay of the bird had given the train officials confidence in their own success. But high above them, swept on by the west wind, and guided by its wonderful instinct, the little messenger kept its course, and when the train reached Cannon street, London, the pigeon had been there twenty minutes—a time allowance of eighteen miles.

**PENGUINS AT TRISTAN D'ACONHA.**—An observant writer who has devoted a good deal of attention to that most peculiar specimen of the natatores, the penguin, thus describes the ungainly movements of a flock after reaching the shore from a dip in the heaving billows: "The moving water approaches the shore in a wedge shape, and with great rapidity, a band of perhaps from three to four hundred penguins scramble out upon the stoncs, at once exchanging the vigorous and graceful movements and attitudes for which they are so remarkable while in the water for helpless and ungainly ones, tumbling over the stones, and apparently, with difficulty assuming their normal position upright on their feet, which are set far back, and with their fin-like wings hanging in a useless kind of way at their sides. When they have got fairly out of water, beyond the reach of the surf, they stand together few by few, drying and dressing themselves and talking

loudly, apparently congratulating themselves on their safe landing, and then they scramble in a body over the stony beach—many falling and picking themselves up again with the help of their flappers on the way—and make straight for one particular gangway into the scrubs, along which they waddle in regular order up to the rookery. In the meantime a party of about equal number appear from the rookery at the end of another of the paths. When they get out of the grass on to the beach, they all stop and talk and look about them, sometimes for three or four minutes. They then with one consent scuttle down over the stones into the water, and long lines of ripple radiating from their place of departure are the only indications that the birds are speeding out to sea. The tussock-brake, which in Inaccessible Island is perhaps four or five acres in extent, was alive with penguins breeding. The nests are built of the stem and leaves of the *Phalaris*, in the spaces between the tussocks. They are two or three inches high, with a slight depression for the eggs, and about a foot in diameter. The gangways between the tussocks, and which penguins are constantly passing, are wet and slushy, and the tangled grass, the strong ammoniacal smell, and the deafening noise continually penetrated by loud separate sounds which have a startling resemblance to the human voice, made a walk through the rookery neither easy nor pleasant.

**A DASTARDLY OUTRAGE.**—Friday evening we enjoyed a visit to the New York Aquarium, at which time a few of the inhabitants of the salt water tanks were in a torpid condition, refusing food, etc.; on the following days, Saturday and Sunday, the number of invalids among the finny tribes increased, until on Monday morning the watchman in charge reported that hundreds of fish were floating on the surface dead, the tanks being almost completely depopulated. During the warm weather the windows on the side of the building toward Thirty-fifth street have been kept open to admit a free circulation of air, and it is conjectured that poison was thrown through these open windows. The work was evidently performed by one familiar with the Aquarium, and the system of circulation and supply of salt water. In addition to the loss of a large amount of money entailed by this wholesale poisoning, it is feared that it will be almost impossible to replace some of the rare species. Among the dead are fifteen valuable sharks, herring and sturgeon. Some time ago two fine and rare sea otters, that had been procured at great expense, died in the Aquarium, having been poisoned by some one unknown. The carcasses were dissected by Dr. Weiss, of Twenty-second street, who found the poison, which proved to have been, then as now, carbonate of lead.

**LION TRAINERS.**—Van Amburgh was one of the most remarkable of lion kings. Perfectly fearless, he was constantly in danger; yet notwithstanding the fact that the newspapers reported him killed over and over again, he died quietly in his bed at last. During his career, menagerie keepers and circus proprietors sought about for lion kings wherever they could find them; and as a demand usually creates a supply, so was it in this instance. Heroes sprang up in various obscure corners, each tempted by the high salary offered. A *solutium* of ten or fifteen pounds a week is no trifle to a man in a humble station. Crockett, who attained considerable celebrity in this branch of business, won fame not only by his performance before the public, but by an exercise of great courage at a perilous moment. One night the lions got loose. Crockett, to whose lodgings a messenger was quickly dispatched, came and listened into the arena. The lions were roaring about the auditorium, and had just killed one of the grooms. Crockett went among them, and with only a switch in his hand drove or enticed them into their cage without receiving a scratch. The rumor of this bold and successful achievement brought him offers of an augmentation of salary. A negro sailor, who called himself Macomo, the Africa lion king, also gained a reputation for bravery. He appears to have been a daring fellow, well adapted for the work he undertook. On one occasion an unusually savage tiger, newly purchased, was put into a cage already tenanted by another tiger. The animals began to fight furiously. Macomo, armed only with a small riding whip, entered the cage; both tigers turned fiercely upon him and lacerated him severely; but, covered with blood as he was, he continued to whip them into submission. Not for one instant did he keep his eyes off of them, and they knew it. Macomo had other narrow escapes, but like most of lion kings he died quietly in his bed at last.—*Ex.*

**CURIOUS ANTLERS.** *Tiffin, O., July 8, 1877.*—"Buck-Shot" says: I have in my possession a buck horn that is quite different from any I ever saw; instead of a single spike coming out of the antler next to the head there are two distinct spikes or prongs. Instead of five prongs, it has six. Father killed the deer about forty years ago. He says the deer was short-legged, thick bodied, and weighed about two hundred pounds. If any of the old hunters have ever killed any like it, I should like to hear from them.

[Deer horns vary almost indefinitely in form and number of prongs. We have seen horns of the mule deer (*C. macrotis*) which might have been taken for those of the red deer (*C. virginianus*), although ordinarily the shape of the horns in the two species is very distinct. Specific distinctions based on the horns alone are in the deer apt to be of doubtful value.—*Ed.*]

**THE CUCKOO.**—Here is the Danish reason why the cuckoo builds no nest of her own. When in the early spring time the voice of the cuckoo is first heard in the woods, every village girl kisses her hand and asks the question, "Cuckoo, cuckoo, when shall I be married?" And the old folks, borne down with age and rheumatism, inquire, "When shall I be released from this world's cares?" The bird, in answer, continued singing "Cuckoo!" as many times as years will elapse before the object of their desires will come to pass. But as some people live to an advanced age, and many girls die old maids, the poor bird has so much to do in answering the questions put to her that the building season goes by; she has no time to make her nest, but lays her eggs in that of the hedge-sparrow.—*Ex.*

THE FAUNA OF MICHIGAN.

BY ARCHER.

(Continued.)

CLASS REPTILIA.  
(Adopted from Prof. Miles' report as State Zoologist.)  
ORDER TESTUDINATA.  
FAMILY TRIONYCHIDÆ.

*Ambyla mutica*, Fitz. Confined to northern part of State.  
*Aspidermectes spinifer*, Ag. Soft-shelled Turtle. "Confined to southern half of Lower Peninsula."—Miles.

FAMILY CHELYDROIDÆ.  
*Chelydra serpentina*, Schw. Snapping Turtle.  
FAMILY CINOSTERNOIDÆ.

*Ocothoen olivata*, Ag. Questionable.  
*Thyroglossum pennsylvanicum*, Ag. Musk Turtle.  
FAMILY EMYDOIDÆ.

*Graptemys geographica*, Ag.  
*Graptemys leucostriata*, Ag.  
*Chrysemys marginata*, Ag. "The most abundant species in the State,"—Miles.

*Knys melagris*, Ag.  
*Nanemys guttata*, Ag. "Several specimens have been found while agreeing perfectly with those from Massachusetts, the only difference noticed being the darker color of the plastron in the Michigan specimens."—Miles.

ORDER OPHIDIA.  
FAMILY CROTALIDÆ.

*Crotalophorus tereticaucis*, Hoib. Massachusetts.  
FAMILY COLUBRIDÆ.

*Entenia savita*, B. and G. Striped Snake, Rare.  
*Entenia arctata*, B. and G. Garter Snake.  
*Nerodia sipedon*, B. and G. Water Snake.  
*Nerodia agassizii*, B. and G.  
*Regina leberis*, B. and G. Striped Water Snake.  
*Heterodon platyrhinos*, Latr. Blowing Viper.  
*Scotophis vulpianus*, B. and G. "This species is abundant in the Saginaws," according to Professor Miles, and though perfectly harmless, is much dreaded by the inhabitants, who believe otherwise. Prof. Miles also says the Blowing Viper is extremely rare, so far he knows, and gives it in his list on the authority of Prof. Sager. When I attended school in Flint, Genesee County, Mich., in 1860, they were not uncommon in that neighborhood, as plenty of my school-mates who used to go out "snaking" with me can testify. At one time three were obtained in a single afternoon near the asylum.—A.

*Ophibolus ezinius*, B. and G. Milk Snake.  
*Bascantion constrictor*, B. and G. Black Snake.  
*Bascantion foxii*, B. and G.  
*Diadophis punctatus*, B. and G. Ring-necked Snake.  
*Chlorosoma nermatis*, B. and G. Green Snake.  
*Storeria De Kayi*, B. and G.  
*Storeria Occipito-Maculata*, B. and G.

CLASS BATRACHIA.  
ORDER ANURA.  
FAMILY BUFONIDÆ.

*Bufo americanus*, Le Conte.  
FAMILY HYLAIDÆ.

*Acris crepitans*, Bd.  
*Hyla versicolor*, Le Conte.  
*Hyla pickeringii*, Hall.  
*Holocates triseriatus*, Bd. Authority of Prof. Baird.

FAMILY RANIDÆ.  
*Rana catesbeiana*, Shaw. Bull Frog.  
*Rana fontinalis*, Le Conte. Spring Frog.  
*Rana pipiens*, Gmel. Siad Frog.  
*Rana palustris*, Le Conte. Pickerel Frog.  
*Rana sylvatica*, Wood Frog.

ORDER URODELA.  
ATREURODELA.  
FAMILY AMBYSTOMIDÆ.

*Ambystoma punctatum*, Bd.  
*Ambystoma turtidum*, Bd.  
*Ambystoma laterale*, Hall. An immature specimen from Saginaw Bay is referred to this species by Miles.  
*Diemictylus minimatus*, Rab.  
*Diemictylus vividescens*, Rab.

FAMILY PLETHODONTIDÆ.  
*Plethodon erythronota*, Bd. Common as far north as Lake Superior.  
*Plethodon cinereus*.

TREMADOTERA.  
*Noctarius laterales*, Bd.  
*Noctarius maculatus*, Bd.

**ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDEN DURING WEEK ENDING TUESDAY, July 21.**—One woodchuck, *Arcobomys monax*, presented; one Virginia deer, *Cervus virginianus*; one white ibis, *Ibis alba*, purchased; three striped lizards, *C. sax lunatus*, presented; one brown lizard, *E. fasciatus*, presented; three chameleons, *A. princeps*, presented; thirteen gray lizards, *S. undulatus*, presented; one pig-tail Macaque monkey *M. minor*, born in garden; one green heron, *Ardea curvicauda*, presented; one moocasin, *A. pesceveris*, purchased.  
ARTHUR E. BROWN, Gen'l Supt.

**ANIMALS RECEIVED AT CENTRAL PARK MENAGERIE FOR WEEK ENDING AUG 4.**—One squirrel, *Sciurus carolinensis*, presented by Mr. D. Scott, N. Y. City. One ring dove, *Turtur risorius*, presented by Miss. Lambert, N. Y. City. One gannet, *Lula bassana*, presented by Rev. J. Howard Hand, Southampton, L. I. One robin, *Turdus migratorius*, presented by Mrs. Makin, N. Y. City. Two armadillos, *Dasypus septemcinctus*. One Zebra, *Equus indicus*, bred in the Menagerie.  
W. A. CONKLIN, Director.

**STRAY ALBATROSS.**—"Our Harry," of Kingston, N. Y., writes that an albatross, or great gull, as it is sometimes called, was caught on Saugerties Flats, July 18. It proved to be a young bird, weighing six pounds four ounces. It is seldom that these birds are found so far from the sea.

—The Social Science Association holds its annual meeting this year at Saratoga. The opening session is appointed for September 4.

SPLIT BAMBOO RODS.

To Our Customers and the Public: In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

Woodland, Farm and Garden.

THE CHARMS OF NATURAL SCENERY.

IN a shady glen or ravine, inviting as it does quiet contemplation, we are often enabled to discern minor objects of beauty, which, under ordinary circumstances, would be passed by unheeded. Here a charming tuft of moss, covered with hundreds of its classical urn-shaped capsules, supported on shining foot stalks; there a tiny bit of wall-rue, mountain spleen-wort or walking fern, spring from the seams of rock, or grow embedded between the lichen-covered stones, all happy and at home. Rarely indeed has a closer inspection failed to reveal something unexpected—some little treasure that might be taken home as a special souvenir. The impressive grandeur of the rocks—piled in irregular jutting masses—here all but overarching the narrow stream, there anon expanding outward into a sort of graduated series of irregular and abrupt terraces, associated and contrasted with the finely developed fronds of the ferns, could not fail to enchant all lovers of the romantic. Under the subdued light—moistened by the trickling drops that filter through the rocky crevices, and sheltered from the drying winds—many of our most charming plants find a fitting and congenial home, in which they frequently enjoy a magnitude of development that almost leads one to question their specific identity. What lovely masses of moss festoon the face of the jutting rocks!—and deep beneath, in the dark corners grow the marchantia and other lichens, stealthily but surely performing their own infinitesimal part in the gigantic work of disintegration that is continuously in progress. Then, again, what an additional interest do the tortuous roots give rise to, as they twist and twine in search of their scanty food, inserting themselves into every crack and crevice, and gradually growing in thickness, till they become gnarled with age, and in their growth assert the vital power of organic over unorganic nature, by displacing, at times, large fragments of rock into the stream below. Seeing then that these ravines have an especial beauty and constitute a marked characteristic in our natural scenery, the question suggests itself, or ought to suggest itself, to every possessor of a country home, is there any wild corner that could by a little skillful manipulation be metamorphosed into a ravine? Any attempt to imitate nature on a large scale must necessarily be attended with considerable expense in the matter of labor alone, independently of the cost of massive blocks of rock, old roots, etc.; but there are gardens in which nature has provided the necessary elements to form the ground work, and it may not be out of place here to give a few hints by which the amateur may be assisted in the selection of such plants as are best adapted for beautifying the ground work already formed to his hand. Where such a ravine is traversed by a stream and overshadowed by trees, few plants are more at home than the great majority of our hardy ferns. Chief among them the various flowering varieties, *Osmunda*, *Cinnamomum*, *Speckabilis* and *intermedia*, with the ostrich plumed *Struthopteris*, *Pennsylvanica* and *Germanica* claim the prominent places, closely followed by broad and massive groups of *Onoclaea sensibilis*. The various *Phegopteris* with their delicate fronds should have a shady nook; *Polypodium vulgare* may cover a partially shaded rock; the curious and interesting walking fern (*Campylomorpha*) will be at home in a damp and mossy location; the Climbing fern (*Lycopodium*) will grow and flourish in a moist, grassy, shady spot; while the various *Aspleniums*, *Aspidiums*, *Woodsiis*, the exceedingly graceful and sweet-scented *Dicksonia*, and even the *Lycopodiums* (*Club-mosses*) and *Selaginellas* will peep from many a nook, and give added interest to every step. But in addition to these fairly bowers o' ferns, there are many of our native flowering plants as well as of the cultivated herbaceous varieties that will add greatly to the beauty of such an arrangement. For creeping plants to cover damp soil and form natural daperies none are better suited than the common *Moueywort* (*Lysimachia nummularia*), and its golden-leaved variety, the *Sibthorpa Europa*, and the golden *Chrysosplenium* also dearly love a damp locality. The twin-flowered *Linnaea borealis*, the early *Hepaticas*, *Thalictrum*, *Decentras*, *Wood Anemones* and violets; the rosy *Oxalis*, all the *Trilliums* and *Epimediums*, *Dodecatheon*, *Trientalis*, *Hypoxis* or *Stargrass*, *Aidenlandia* (*Bleets*), *Aquilegias*, not neglecting the new golden *A. Chrysantha*, and hundreds of others, will naturally find a proper situation, while over them will wave the lovely *Solomon's Seal* (*Polygonatum*), the *Baneberry* (*Acea spicata*), with its cherry red or white berries, the *Bug-bane* (*Cimicifuga*), the feathery plumes of the *Saillaeina racemosa*, the various *Lilics*, *Cypripedium*, *Habenarias*, *Uvularias*, *Irises*, and many taller growing plants, which, if given plenty of rich soil, will grow and flower with a vigor almost surprising. High among the rocks, and in the more exposed situations, can be planted the graceful *Adlumia cirrhoza*, with its clusters of fringe-like flowers, the lovely *Clematis Virginia*, or its sweet-scented congener, *O. Flammula*, the violet-scented *Apios tuberosa*, the golden-leaved *Honeysuckle*, for the contrast of its foliage, or the golden-berried *Celastrus*, or *Bitter Sweet*, so ornamental in the fall; even the American Ivy (*Ampelopsis*) and kindred vines in graceful festoons can all be brought, with the wild elegance of their growth, to lend an additional charm to the scene.

THE NEW YORK HORTICULTURAL SOCIETY.—We have much pleasure in mentioning that we have received the corrected schedule of premiums offered by this enterprising society for their fall exhibition, to be held at Gilmore's Garden Sept. 26 to Sept. 28 inclusive. In this, probably the finest hall in the country for such an exhibition, and as the premiums offered are very liberal, we feel assured that the exhibition will surpass even that of last season, and would advise all interested in horticultural pursuits to be sure to attend it. Any one wishing a copy of this schedule, or of the constitution and by-laws of the society can have it by return mail by addressing to recording secretary, W. J. Davidson, 258 Fulton street, Brooklyn.

ROUGH NOTES FROM THE NORTH EAST.

HALIFAX, N. S., July 23, 1877.

EDITOR FOREST AND STREAM:

Cool and bracing, even in summer, is the breeze that blows fresh from the broad Atlantic upon the bold Acadian shore. That Arctic current which pours down its icy waters through Davis' Straits upon the northern coast of Newfoundland, bearing upon its bosom the dreaded bergs which float outward to the western confine of the noted Gulf Stream, sends one of its errant outlets southward to wash our granite shore; and it is to this cool current that we owe our charming summers, the like of which no other land can boast of the wide world over. When you, Mr. Editor, and other worthy citizens of the western world's metropolises are sweltering under the influence of a temperature which overheats the system and exhausts the frame for weeks—may we not say months?—the inhabitants of this favored land can enjoy the luxury of a daily walk through an atmosphere reduced to within a few degrees of temperate by the vast refrigerator we have alluded to. 'Tis true, we cannot boast much of our spring; the months of April and May are generally "broken," as it is termed—one day may be calm, clear and warm, while the next may be boisterous, gloomy and cold. At that season, also, we are liable to dense fogs—at least that portion of our province which lies along the Atlantic shore—and these fogs are the result of the contact of the cold northern current with that of the Gulf Stream. Our summer, therefore, cannot be said to commence before the middle of June, although some charming weather does occur even in May, on the last day of which month, some six years ago, I well recollect the extremely high temperature of 91° in the shade being recorded.

The city of Halifax, with which locality and its fauna I am more acquainted than with other parts of the province, is situated upon a peninsula running nearly north and south, bounded on its eastern side by the waters of perhaps the finest harbor North America can boast of, while on the west it is lavied by those of the placid lake-like inlet known as "The Northwest Arm." The highest portion of the peninsula is Citadel Hill, on which Fort George is built, and from which a splendid view of the entrance to the harbor and surrounding country may be obtained. It may possibly reach the height of 200 feet above the sea level, but I should think hardly more. In every part of the peninsula the soil is much the same—poor and shallow in its natural state, and resting on a sub-soil of hard-pan clay, mingled with the rounded masses, large and small, of granite and slate stone, so characteristic of the well-known "boulder drift." As may be expected, the land on the peninsula, poor and hungry as it is, is found to be profitable under cultivation so near to a large town, and therefore but a small portion remains in its original wild state. At its southern extremity lies a tract of this wild land, about 300 or 400 acres in extent, known as Point Pleasant, a charming district, now laid out with walks and drives for the citizens to take their pleasure in. The spot is truly wild in every respect; a mass of rock, more or less chaotic, everywhere clothed with a dense growth of dwarf spruce (*Abies nigra*, Poir.) in its three varieties of black, red and white, interspersed with degenerate, though picturesque, examples of the white or Weymouth pine (*Pinus strobus*, L.). Diving into the recesses of this wilderness, the botanist will light upon many a shrub and plant wherewith to adorn his herbarium. Beneath the sombre shade of those gnarled and knotted pines, in spring time blooms the May-flower (*Epigaea repens*, L.) and in early summer in profusion grows the little twin flower (*Linnaea borealis*, Gron.), whose lovely, pendile blossoms never fail to attract the attention of the most incontinent eye, while numberless shrubs, including the crimson lamb-ear (*Kalmia angustifolia*, L.), the purple rhodora (*R. canadensis*, L.) and Labrador tea (*Saxifraga latifolia*, Ait.) help to fill up every vacant space, save where an open grassy spot occurs like an oasis in this desert of conifers, marged around by the dwarf, yet dense foliage of the humble blueberry (*Vaccinium pennsylvanicum*, Lam.).

It is not only in summer that this locality is pleasing to the lover of nature, for even in the depths of our long and severe winters when the snow storm is raging in all its fury and the trees are boding to the passing gale, it is pleasant to roam through these solitudes and listen to the faint note of the black-capped titmouse and Hudsonian chickadee, which appear to heed not the piercing northern blast, but pass onward from tree to tree, busily searching each moss-grown branch for the insect food which hibernates within.

Such briefly is Halifax and its immediate surroundings; other spots there are, 'tis true, well worth describing, but as the readers of FOREST AND STREAM may weary of my account, I shall refrain for the present, at least, and pass on to cull a few items from my note-book.

Portuguese Man-of-War (*Physalia*).—Among the Southern forms brought to our coast by the Gulf Stream is the Portuguese man of war, and its occurrence generally takes place during the month of August or beginning of September; sometimes a little earlier, as in July, 1866, when a specimen was taken in our harbor on the sandy shores of Sable Island, which lies some eighty miles off shore and much nearer the Western edge of the Gulf Stream; it is not uncommon at that season of the year.

Earthworm (*Lumbricus*).—I observe sometimes when walking along our streets during the early summer months after a heavy rainfall an unusual number of earthworms lying dead above ground. What can have been the cause of so much wholesale destruction?

[The earthworms come up from the dry ground beneath to get the moisture, and obtaining too much water, are drowned. An earthworm will drown in a bucket of water in half an hour or less.—Ed.]

Wild Strawberry (*Fragaria virginiana*, Ehr.).—In ordinary seasons this plant, which is very abundant in most parts of the country, expands its leaves about the last week of April, and I have observed it in bloom as early as May 12. The fruit ripens about the middle of June, although some may be picked a few days earlier. From the end of June to the middle of July the market is plentifully supplied. The usual mode of exhibiting the fruit for sale is in little trays made of the bark of the paper birch (*Betula papyracea*, Ait.), holding usually about a pint of berries, and these "barks," as they are called, sell when the fruit is abundant at about seven or eight cents each. Heavy rains have a bad effect upon our wild strawberry supply, as it is a fruit which soon decays under moisture when fully ripe.

White-weed (*Leucanthemum vulgare*, Lam.).—One of the most common weeds to be seen in our cultivated fields, especially meadows, is the white weed, or ox-eyed daisy. The hay crop in some places about Halifax is more than half composed of this plant, yet farmers declare they have no objections to it, as the cows are very fond of it, and being bitter in taste it probably acts as a tonic. M. C. MAC.

—Sir Richard Wallace, an English country gentleman, has planted so many rhododendrons on his estate in Suffolk this season that they may almost be reckoned by the mile. They are expected to afford a beautiful sight next spring.

—The roof of the Palmer House, Chicago, has been converted into a magnificent conservatory.

WILDWOOD POISONS.

FORT DUNCAN, TEXAS, July 23, 1877.

EDITOR FOREST AND STREAM:

A communication, signed "Jacobstaff," in your issue of July 12, and your editorial remarks thereon, have excited my interest and attention. Having been many times the victim of wildwood poisonous vines and shrubs, and having learned from Indians and Mexicans certain remedies used by them for the poison of the Ivy and poison oak, so common throughout our entire Western domain, I venture to offer a suggestion or two as to remedies, and hope your correspondent, as well as some of his readers, will try one of them for the poison of the black alder as well as of the Ivy.

The two remedies I shall mention are not of those before stated, as in use by Indians and Mexicans, but are the result of a study by several army surgeons of the effect of these Indian and Mexican remedies, and substituting therefor certain chemicals of similar character.

The first is a strong solution of nitrate of potash applied frequently to the parts affected. The best way to apply is to keep bandages of linen saturated with the solution, on the parts. When this cannot be had, use gunpowder made into a thin paste with milk or water.

The other is a solution composed of zinc oxide, two drs.; acid tannic, thirty grains; cosmoiline, plain, two drachms. Apply same as other solution. Both are certainly excellent antitoxics for the poison of Ivy and the poison oak, and may be equally so for the black alder. WESTERN SPORTSMAN.

WOODLAND POISONS.—Another correspondent sends an additional remedy, as follows:

As there has been a great deal said lately in FOREST AND STREAM AND ROD AND GUN about poison Ivy, or, as we call it, poison oak, I send you a sure remedy for it: The yolk of one egg boiled hard, made into a paste or ointment, with a tablespoonful of good fresh butter (not salted); apply to the parts affected. The above is not impaired by age, or becoming rancid, but is rather improved. I can testify to the good results from use of the above remedy, for I have never known it to fail.

—The dried plants received last week were all correctly named, with the exception of the *Muticaria*, which we think is *Maruta cotula*. The unnamed species is undoubtedly *Troximon cuspidaturna*, Pursh., a native of our Western prairies. Would our correspondent be kind enough to give location and date of collecting in future if practicable?—Ed.

—The Society for the Prevention of Cruelty to Animals offers a prize of \$500, to be awarded Aug. 1, 1878, to the person or persons who shall have done the most to lessen the sufferings of animals in transportation by rail during the year which will end July 1, 1878.

SOOT AS A FERTILIZER.—To strong growing greenhouse plants, such as pelargoniums, fuchsias, roses, carnations, chrysanthemums, azaleas, solanums, and many others, soot is a valuable and easily obtained stimulant. A handful of it tied in a bag and stirred in a three-gallon can of water, has a marvelous effect on all the plants just named, and on many others besides. It induces vigorous growth, and adds freshness and substance to both leaf and flower. It is better to use it in small quantities and often, rather than charge the compost with more carbon than the plants can readily assimilate. For the more robust growers, especially if grown in small pots, mixture with fresh manure from the cow shed is desirable, but this mixture should be allowed to settle before using, otherwise the grassy particles will remain on the surface of the pots, and while giving them an unsightly appearance, exclude that free aeration which all healthy roots require.

DESTROYING PLANT INSECTS.—At this season of the year aphids and thrips are apt to be very troublesome, and, from the fact that many green-houses attached to villa residences are badly constructed, an effectual fumigation by means of tobacco smoke in the ordinary way becomes somewhat difficult. My own house is a case in point. The roof is so loosely constructed that the smoke passes away through the openings before the insect pests are destroyed. I am therefore led to adopt a plan of my own. Once a week I put some soft soap and flowers of sulphur into four gallons of soap-suds, mixing all well together. The next process is to turn the plants heels upward and immerse their heads in the soapy solution; but before doing this, I prepare a circular piece of stiff card with a hole half an inch in diameter, and a slit reaching from the central opening to the circumference of the card. This is then stretched so as to allow the stem of the plant to be surrounded, and by pressing the fingers of the left hand firmly against it and to the rim of the pot when the plant is turned upside down, no soil can fall into the mixture. By gently moving the head of the plant backward and forward in the solution, the leaves become cleansed of insects, and as a kind of soapy gloss clings to the leaves after they are dry, insects do not quickly infest them again.—The Gardener.

AQUARIUM CEMENT.—Mix together litharge and glycerine to the consistency of thick cream or fresh putty. This cement is useful for mending stone jars or any coarse earthenware, stopping leaks in seams of tin pans or wash-boilers, cracks and holes in iron kettles, etc. I have filled holes an inch in diameter in kettles, and used the same for years for boiling water and feed. It may also be used to fasten on lamp-tops, to tighten loose nuts, to secure loose bolts whose nuts are lost, to tighten loose joints of wood or iron, loose boxes in wagon hubs, and in a great many other ways. In all cases the article mended should not be used until the cement has hardened, which will require from one day to a week, according to the quantity used. This cement will resist the action of hot or cold water, acids and heats.—N. Y. Tribune.

ROSE SLIPS.—Never cut a lateral shoot from a rose bush, if you wish to propagate it, but break it off quickly with a downward motion. It will then retain a minute portion of the older branch; the fracture will be rough and send out rootlets more readily. Make your soil very wet, like thick mud, and keep it so. Your rose slips planted in this way should root in three weeks.—Rural New Yorker.

THE AMERICAN POMOLOGICAL SOCIETY holds its meeting this season at Baltimore, commencing Wednesday, Sept. 12th, at 10 A. M., and continuing three days. All Pomological, Horticultural, Agricultural and kindred societies in the United States and British Provinces are invited to send as large delegations as they may deem expedient, and all persons interested in the cultivation of fruits are invited to be present and take seats in the convention.

This coming session is expected to be unusually interesting from its location in the great fruit growing region of the Atlantic coast, and from the varied experience embodied in the reports of the State and local horticultural societies to be presented. The Maryland Horticultural Society will, at the same time, hold a grand exhibition of fruits, plants, flowers and vegetables, which will give increased interest to the occasion.

Packages of fruit, with the names of contributors, may be addressed to the American Pomological Society, care of W. B. Sands, Baltimore, Md.

**TO KEEP MEAT FRESH.**—As soon as the animal heat is out of the meat slice it up ready for cooking. Prepare a large jar by scalding well with hot water and salt. Mix salt and pulverized saltpetre in the proportion of one tablespoonful of saltpetre to one teacupful of salt. Cover the bottom of the jar with a sprinkle of salt and pepper. Put down a layer of meat, sprinkle with salt and pepper the same as if just going to the table, and continue in this manner till the jar is full. Fold a cloth or towel and wet it in strong salt and water in which a little of the saltpetre is dissolved. Press the cloth closely over the meat and set in a cool place. Be sure and press the cloth on tightly as each layer is removed, and your meat will keep for months. It is a good plan to let the meat lie over night after it is sliced before packing. Then drain off all the blood that oozes from it. It will be necessary to change the cloth occasionally, and take it off and wash it—first in cold water, then seal in salt and water as at first.—*Ez.*

**PRESSED LEAVES AND FLOWERS FOR WINTER.**—Jack-in-the-Pulpit, in the August "St. Nicholas," gives some hints for preparing leaves and flowers for home decoration. By the exercise of very little labor, and without any expense rooms may be thus rendered wonderfully cheerful for the long winter months:

The Little Schoolm'am's plan is to take a sheet of thin cotton-batting, and lay the flowers carefully on it, covering them with another sheet, and then putting the whole under slight pressure. Sometimes, when the flowers are thick, and contain a good deal of moisture, she puts them on fresh cotton the next day, and after that does not disturb them. But in pressing nearly all the small flowers, the cotton need not be changed at all, and not even opened until the flowers are preserved. I noticed that the Little Schoolm'am's pressed flowers had a soft, bright look. She groups the long-stemmed ones prettily in vases, or lays them between sheets of thin glass, and hangs them in her windows in the winter, she says. They haven't at all the poor, pinched, faded, faded look of flowers prepared in other ways. The Little Schoolm'am presses green leaves and ribbon-grass in the same way, keeping their color perfectly, and she told the children that when they wanted to pile a number of these double cotton layers together, it was better to lay a sheet of blotting paper in between the sets. Sometimes she lays tissue paper between the flowers and the cotton; but it is of the thinnest kind.

—House plants ought to be stimulated gently once or twice a week. Rain water, so refreshing to summer flowers, always contains ammonia, which also abounds in all liquid manures. If you take an ounce of pulverized carbonate of ammonia, dissolved in one gallon of water, it will make spring water even more stimulating to your plants than rain water. If you water your plants once in two weeks with guano water (one tablespoonful to a pail of water), they will grow more thrifty. Chicken manure dissolved in water is excellent. Always keep the soil in your flower pots loose. A common hairpin used daily will stir the earth sufficiently.—*Boston Journal of Chemistry.*

**THE RAIN TREE.**—In the woods adjacent to the city of Moyobamba, Peru, exists a tree called by the natives Tamai-caspi (rain tree) which possesses some remarkable qualities. It is a tree of about fifty feet high when at maturity, and of about three feet in diameter at the base, and has the property of absorbing an immense quantity of humidity from the atmosphere, which it concentrates and subsequently pours forth from its leaves and branches in a shower, and in such abundance that in many cases the ground in its neighborhood is converted into a perfect bog. It possesses this curious property in its greatest degree in the summer, precisely when the rivers are at their lowest, and water most scarce; and the writer proposes that it should be planted in the more arid regions of Peru for the benefit of agriculturists.—*Panama Star and Herald.*

—Senator Dorsey is taming buffaloes on his new Mexican ranch.

**ANTLERS, ETC.**—Collectors may obtain the following superb specimens at a fair price, by addressing this office.

One pair moose antlers, 16 prongs, mounted; one large pair yak horns, joined at base; one pair Texas horns; one bare head of mule deer, with antlers, ten prongs, mounted; one pair antlers and head of red deer, mounted; one upper shell of sea tortoise, large; one do., land tortoise; one alligator's head, mounted, fine white teeth; one large clear and white shark's jaw; one walrus snout, mounted; one large sawfish snout; four large sword fish do.; one pair buffalo horns, highly polished and joined; one pair caribou antlers (female) even, fair sized and unmounted; two pair red deer antlers, mounted.

The above are fine specimens, which will be presented to Cambridge Museum if not quickly disposed of.

**SAFETY REIN HOLDER.**—The nearest thing that has come to our notice is the Safety Rein Holder. It can be attached to any carriage, clasps the reins without fuss or trouble, and holds them securely. To physicians we especially recommend it. We know how it is ourselves, and would not be without one for three or four times its cost. It is neat, easily adjusted, saves time, and prevents accidents.—*See Ad.*

—Mere glitter and lip service deceive for a while, but in the long run fail in their influence. People learn to see beneath the seeming. But B. T. Babbin's Toilet Soap is precisely what it claims to be, the purest and sweetest of toilet soaps, invaluable in the nursery, and consequently the best article for "children of a larger growth."—*[Ad.]*

## The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

### CANINE THERAPEUTICS AND PATHOLOGY—Fifth Paper.

#### ANATOMY OF THE DOG COMPARED WITH MAN.

WE come next to those organs that serve to secrete and excrete urine, and are likewise essential to the reproduction of the species. The kidneys are situated much in the same way as in man, but are of more globular form, and unprovided with fat on their anterior surface. This difference is easily accounted for when we compare the situation and posture of the two. In the dog they are placed in the inferior part of the body, so as not to be subject to the pressure of the viscera, which seems to be the cause of the deposit of pingulo in the biped; hence there is no need of any cellular substance to ward off pressure. The superior portions of the canine kidneys are, however, well supplied with adipose tissue, lest they should suffer any compression from the action of the ribs and spine.

In the internal structure of these organs there is considerable difference. The *papille* do not here send out single the several *tubuli uriniferi*; but being all united, they hang down in the form of a loose pendulous flap in the middle of the pelvis, and form a kind of septum medium, so that a dog has a pelvis formed within the substance of the kidney. The only thing that is properly analogous to this in man, is that sac or dilation of the ureters formed at the union of the *ductus uriniferi*. The external part of the canine kidney closely resembles one of the lobes of that of the human foetus. But in the human adult, from the continual pressure of the surrounding viscera, the lobes—which, in the foetus, are quite distinct and separated—coalesce, though the original cortical substance is still preserved in the interior. The reason of these peculiarities in the dog are probably that the fluids of the animal—as of all the carnivora—being much more acid than those that live on vegetable food, its urine must incline to alkalescency, as indeed is proven by test and smell of that secretion in cats, leopards, dogs, etc., being fetid and pungent, and therefore not proper to be long retained in the body. For this end it is proper the secreting organs should have as little impediment as possible by pressure, etc., in the performance of their functions; and for that design the mechanism of the canine kidney seems to be elegantly adapted.

The *glandule* or *capsule atrabiliarie* are thicker and rounder for the same reason as the kidneys. The ureters then, are more muscular because of the unfavorable passage the urine has through them, they entering the bladder at the fundus.

The bladder is much the same shape in all quadrupeds, being pyramidal or pyriform. Its difference in shape from man arises from the fact that the neck, from which the urethra is continued, is higher than the fundus; the urine, therefore, must distend and dilate the most depending part by its weight. It is fastened to the abdominal walls by an extension or process of the peritonium, which membrane is extended quite over it. As a rule, carnivora have the bladder more muscular, considerably stronger, and less capacious than the herbivora—such as horses and cattle, whose viscus is perfectly membranous, and very large. This is wisely adapted to the nature of their food, for with the former the secretion is so acid, that we may naturally believe that its removal might be attended with ill consequences, and hence demands to be quickly expelled. This is chiefly effected by its stimulating its receptacle to contraction, and consequent discharge of contents, though the irritation does not depend upon the stretching, so much as the peculiar qualities developed by the secretion itself. That stimulus is one of the principal causes of the excretion of urine is evident when we remember that saline diuretics are dissolved into the semen of the blood, and carried down by the kidneys to the bladder. The same appears likewise from the application of cantharides, or even without medicines, where the parts are sensitive, as from excoaration. Accordingly we find that canines micturate much more frequently than man and other animals with whom vegetable food constitutes the greater portion of their diet. From the acidity of the secretions of the carnivora, particularly the dog, the old writers attempted to account for rabies. The argument was this: that if these animals whose secretions have a tendency to acidity or putrefaction are exposed to heat or hunger, the small portions that would not be excreted—it being claimed that unless new supplies were furnished that all excretory matter would not be voided—would be absorbed into the circulation, poisoning the blood and—to quote an old writer—"the fluids become more and more acid, by which the creature falls into feverish and putrid diseases; and, in fact, we find that fatal and melancholy distempers, as *rabies canina* and *vulpina* frequent these animals, whereas those that feed on vegetable food seldom or never contract those diseases but

by infection." At about the time these ideas of rabies were being sown broadcast, one Dr. Heysham took up cudgels in opposition to this theory, and wrote a pamphlet in the defense of one, equally as ridiculous to our modern eyes, entitled, "The Cause of Rabies not Putrescency, but Acidity of the Fluids."

The spermatic vessels are within and covered by the peritoneum, from which a membrane analogous to the mesentery hangs loose and pendulous in the abdomen, unlike man, where they are contained in the cellular structure of the peritoneum, which is tersely stretched over them. At this passage out of the lower abdomen there appears a simple perforation or ring, precisely like that of the human foetus. This opening leaning down to the testicles, which is of no disadvantage to the quadrupeds would have been of great inconvenience to the erect biped, as, from the weight of his viscera, continually gravitating upon these openings, would put him in perpetual danger of enterocoeles, and man is subject enough to hernia as it is. This, dogs are no way in danger from, since in their horizontal position, this passage is in the highest part of their abdomen, and the viscera can not press upon the apertures; and even to prevent the slightest hazard, each is eluded by a loose semilunar flap of fat, which not only prevents the intestines from engaging in the passage, but does not allow the vessels themselves to be constricted. Even in the most emaciated animals this remains intact. Again, with a similar condition of affairs in man, the constant dripping down of the secretions of the omentum would have caused man to suffer with a perpetual hydrocoele; but the posture of this animal secures him from anything of the kind, though very fat lap dogs, who consequently have an overgrown omentum, are sometimes troubled with an epiplocele or hernia.

The scrotum is not pendulous as with man, that the secretion at each copulation may the sooner be brought from the testes, thus in some measure supplying the place of the *vesicula seminales*, which are wanting in all canines; the course of the semen through the *vasa deferentia* is thus shortened by placing the secreting vessels nearer the excretory organs. Perhaps its passage is likewise quickened by the muscular power of the *vasa deferentia*, which is much stronger than in the human. This want of *vesicula seminales* also explains why the sexual act is so tedious with the dog; but why they are absent in this animal more than in others is a circumstance which we are unable to explain.

The structure of the testicles is the same as man, as are likewise the *corpus pyriformale varicosum*, or pampiniforme, and the *epididymis* or excretory vessel of the testicle. The *vasa deferentia* enters the abdomen where the blood vessels come out, and, passing along the upper part of the bladder, are inserted a little below the bulbous part of the urethra.

The *preputium* is provided with two muscles; one arising from the sphincter ani is inserted all along the *penis*, and is known as the *retractor preputii*, which sufficiently explains its office; the other takes its origin from the muscles of the abdomen, or rather appears to be a product of the tunica carnosae, and is *extensor*; its use is the opposite of that of the *retractor*. The *corpus cavernosa* rise much the same as in the human, but soon terminate, the rest being supplied by a triangular bone. There are upon the penis two protuberant, bulbous, fleshy substances, resembling the glans penis in man, at the back of which are two veins; are compressed by the ereciores penis and other parts during coition, and the circulation stopped, the blood distending these bodies. After the male organ is thus swollen, the vagina of the female, by its contraction and swelling of its corpus cavernosum, which is considerably greater than in other animals, grips it closely, so that the male is kept in action for some time whether he will or not, till time be given for bringing the semen necessary for the impregnation of the bitch; and thus, by that *orgasmus venereus* of the female organs, the want of vesicular seminales is supplied.

But as it would be a very uneasy posture for the dog to support himself solely upon his hindfeet, and for the bitch to support the weight of the dog for so long a time, therefore, as soon as the bulbous bodies are sufficiently filled, he gets off and turns averse to her. Had, then, this penis been pliable as in other animals, the urethra must of necessity have been compressed by twisting, and consequently the course of the semen interrupted; but this is wisely provided against by the canal being placed in a groove excavated in the inferior surface of bone. After the emission the parts become flaccid, and the circulation is restored, when they are easily extracted.

The prostatic is proportionately larger than in the human, and divided into two, and secrete a greater amount of fluid.

The uterus of multiparous animals is little else than a continuation of the vagina, only separated from it by a small ring or valve. It bifurcates, forming two long canals, which mount upon the loins, in which the offspring are lodged. These are divided into different sacs, which are strongly constricted between each foetus, though these constrictions give way when gestation is completed and birth begins.

We next examine the thorax and its contents. But it may not be amiss to remark of the diaphragm in its natural situation, that it is in general more loose and free than with us, its connections being altogether different. The human diaphragm is attached to the pericardium, which again, by the intervention of the mediastinum, is tied to the sternum, spine, etc.; but in this animal there is some little space between the diaphragm and pericardium. We observe further that its middle part is much more moveable, and the tendinous portions are not so large, and it is necessary that the diaphragm should be somewhat loose, the dog making greater use of it in respiration than man. This we may observe by the strong heaving of the flanks after violent exercise.

The disposition and situation of the *mammæ* vary as they bear one or more young. Uniparous animals have them placed between the posterior extremities, which in them is the highest part of their bodies, whereby the young obtain nourishment without the inconvenience of kneeling; nevertheless, when such animals are of no great size and the *mammæ* large, as in sheep, the young are obliged to assume this position. Multipara are supplied with a number of teats, that their gov-

eral young may have room at the same time, hence they are disposed over both thorax and abdomen; such generally lie down when supplying their offspring with milk, in order to afford them the most favorable situation. From this it does not seem to be from any particular fitness of the parts that the breasts are placed as we find them in the human race, but rather from that of the situation being the most convenient both for mother and infant.

The sternum is very narrow, and consists of a great number of small bones, moveable every way, as is always the case with animals that have great mobility of the spine. The ribs are straighter and by no means so convex as in man, whereby in respiration the motion forward but very slightly enlarges the thorax, which is compensated by the greater mobility of the diaphragm. The want of clavicles and the consequent falling in of the anterior extremities upon the chest, probably contributes somewhat to the straightness of the ribs.

The mediastinum is pretty broad. The pericardium is not here contiguous to the diaphragm, but there is an inch of space between them, in which the small lobe of the lung lodges; by this arrangement the liver, though perpetually pressing upon the diaphragm, cannot interfere with the motion of the heart.

The heart is situated with its point almost directly downward, according to the posture of the animal, and is but very little inclined to the left side. Its point is much sharper, and its shape more conoidal than with man; and the names of the right and left ventricles are proper enough, though not so with us, when they would with greater propriety be called anterior and posterior or superior and inferior. The vena cava is of considerable length inside of the thorax, having to pass nearly the whole length of the heart ere it reaches the sinus *Loewerianus dexter*. In man, so soon as it pierces the diaphragm, it enters the pericardium, which is firmly attached to it, consequently immediately enters the sinns, which, by the oblique direction of the heart is almost contiguous to the diaphragm. This situation of the canine heart evidently best agrees with the shape and position of the thorax, it being lower than the abdomen.

The egress of the blood vessels are also somewhat different, as the right subclavian of the dog is given off first; and as a large trunk is continued some way upward before the left carotid is formed, and divides into the carotid and subclavian of the right side, then the left subclavian is sent off—hence, properly speaking, there is no *aorta ascendens* any more than in man.

From this special distribution of the vessels of the right side, which happens though in not so great a degree in man, we may perhaps account in some measure for the greater strength, readiness, or facility of motion generally observable in the limbs of that side. Upon measuring the sides of the vessels, the surface of the united trunk of the right subclavian and carotid is less than that of the corresponding arteries of the left side, as they are separated; hence the resistance to the blood must be less in that common trunk than in the left subclavian and carotid.

But if the resistance be smaller, the absolute force with which the blood is sent from the heart being equal, there must of necessity be a greater quantity of blood sent through them in a given time; and as the strength of the muscles is, *ceteris paribus*, as the quantity of blood sent into them during a given time, those of the right side will be stronger than the left. Now, children early become conscious of this superior strength, and use the right arm on all occasions; thus from use comes the great difference which is so observable. That this is a sufficient cause seems evident from fact, for what a difference there is between the right and left arm of that modern Vulcan, the blacksmith? An examination will convince the most skeptical that the difference must arise from use. But if by any accident the right limb is kept from action for any time, the other, from being used, stimulates a greater flow of blood, and soon develops and gets to be the better. It is not to be imagined that the small difference in the original formation of the vessels should be sufficient to resist the effect of use and habit; instances to the contrary occur every day. It is enough for our argument that where no means are used to oppose it, the odds are sufficient to determine the choice in favor of the right. Observe a dog at a trot how he bears forward with his right side; or look at him when scraping a hole in which to deposit the bone he carries—you will perceive that he uses his right foot much more frequently than the left. Something analogous to this may be observed in the pawing of the horse. It was formerly the opinion of anatomists that left-handed people, as well as those distinguished by the name of *ambidexter* (who use both hands alike), have the two carotid and entclavian arteries coming off in four distinct trunks from the arch of the aorta; but examinations made for the purpose of determining this—though, indeed, but few—failed to confirm the hypothesis.

**RAB.**—Did you ever read Dr. John Brown's "Rab and His Friends?" If not, do so at once. It is published in handsome and convenient form by the Osmonds (price 50 cents), and also forms one of the Lakeside Library numbers (price 10 cents). It is one of the most exquisite sketches ever written, an admirable piece of artistic work, and as a portraiture of a noble dog simply unsurpassed. Here is the description of Rab, the hero:

I wish you could have seen him. There are no such dogs now. He belonged to a lost tribe. As I have said, he was brindled and gray, like Rubislaw granite; his hair short, hard and close, like a lion's; his body thick-set, like a bull—a sort of compressed Hercules of a dog. He must have been ninety pounds weight, at least; he had a large blunt head; his muzzle black as night, his mouth blacker than any night, a tooth or two—being all he had—gleaming out of his jaws of darkness. His head was scarred with the records of old wounds, a sort of series of fields of battle all over it; one eye out; one ear cropped as close as was Archbishop Leighton's father's; the remaining eye had the power of two; and above it, and in constant communication with it, was a tattered rag of an ear, which was forever unfurling itself, like an old flag; and then that bud of a tail, about one inch long, if it could in any sense be said to be long, being as broad as long—the mobility, the instantaneousness of that bud were very funny and surprising, and its expressive twinklings and winkings, the intercommunications between the eye the ear and it were of the oddest and swiftest.

Rab had the dignity and simplicity of great size; and having fought his way along the road to absolute supremacy, he was as mighty in his own line as Julius Caesar of the Duke of Wellington, and had the gravity of all great fighters.

You must have often observed the likeness of certain men to certain animals, and of certain dogs to men. Now I never looked at Rab without thinking of the great Baptist preacher,

Andrew Fuller. The same large, heavy, menacing, combative, sombre, honest countenance, the same deep, inevitable eye, the same look—as of thunder aslepe p, but ready—neither a dog or a man to be trifled with.

**A DOG CATCHER COMES TO GRIEF.**—Martin Geisler, of One hundred and fifty-eighth street, was awakened at an early hour by the howling of his Newfoundland dog in the back yard. Throwing open the window a curious scene met his gaze. On top of the fence sat James Fay, assistant dog-catcher for the Twenty-third Ward, vainly endeavoring to hoist the dog by means of a rope and noose, which had been slipped around the animals hind legs. Mr. Geisler aimed a revolver at Fay and bade him depart, which he endeavored to do, but fell into the arms of a policeman, and was taken before Justice Wheeler and held to answer at the Special Sessions. Fay argued that he was discharging his duty.

It is to be hoped an example will be made of this scoundrel.

**DESTRUCTION OF SHEEP BY DOGS.**—Nearly three million of sheep were destroyed by disease or the depredations of dogs and wolves during the last year, representing a money value of nearly \$8,000,000. The loss is greatest proportionately in North Carolina, Florida and Louisiana, and ranges from seventeen per cent. in the former State to three and seven-tenths in Nebraska, the average being about eight. The lowest rate is in the States *having dog laws*, and the highest is confined to the South, where almost every negro is the owner of one or more curs.

—This is a true story, for the *Pittsburg Gazette* says it:

At Hawkins Station, Pa., a day or two ago, a dog attempted to pass under a train, but was not quick enough, and the tip end of his tail was caught and cut off. He whirled around to see what was the matter with that extremity, and almost instantly his head was cut off.

—E. F. Mercellott's orange and white bitches, Pet and Grace, have recently whelped—Pet nine, five bitches and four dogs; Grace, eight, five dogs and three bitches; the former by Theo Morford's dog, Don, the latter by Morris's Pete. All orange and white with black points.

**NAME CLAIMED.**—I hereby acknowledge the receipt of a Moll II and Rufus II, pup from Mr. Von Culin, of Delaware City, Del., for which I claim the name of Bruce. He is entirely red, with not one white hair on him, and black nose and lips.  
GEO. N. BEDWITT.

The New York Kennel Club have three puppies for sale, two by "Rake" (Mr. Laverack), out of "Flirt" (Irish). Information may be had from Dr. Strachan, 51 East Twenty-third street, N.Y.—[Ad.]

## Sea and River Fishing.

### FISH IN SEASON IN AUGUST.

FRESH WATER.	SALT WATER.
Trout, <i>Salmo fontinalis</i> .	Sea Bass, <i>Sciaenops ocellatus</i> .
Salmon, <i>Salmo salar</i> .	Sheepshead, <i>Achoeropus probatocephalus</i> .
Salmon Trout, <i>Salmo confinis</i> .	Striped Bass, <i>Morone americana</i> .
Land-locked Salmon, <i>Salmo gairdneri</i> .	White Perch, <i>Morone americana</i> .
Grayling, <i>Thymallus tricolor</i> .	Weakfish, <i>Cynoscion regalis</i> .
Black Bass, <i>Micropterus salmoides</i> ;	Bluefish, <i>Pomatomus saltatrix</i> .
<i>M. nigricans</i> .	Spanish Mackerel, <i>Cybium maculatum</i> .
Masagoone, <i>Esox nubilus</i> .	Cero, <i>Cyrtum regale</i> .
Pike or Pickerel, <i>Esox lucius</i> .	Bonito, <i>Sarda pelamys</i> .
Yellow Perch, <i>Perca flavescens</i> .	Kingfish, <i>Menticerurus nebulosus</i> .

**FISH IN MARKET.**—Our quotations for the week are as follows:

Striped bass, 18 to 25 cents per pound; bluefish, 10 cents; salmon, green, 40 cents; frozen do, 30 cents; mackerel, 25 cents; weakfish, 12 cents; white perch, 15 cents; Spanish mackerel, 60 cents; green turtle, 12 cents; halibut, 18 cents; haddock, 8 cents; king-fish, 25 cents; codfish, 8 cents; blackfish, 15 cents; herrings, 6 cents; flounders, 8 cents; porgies, 10 cents; sea bass, 18 cents; cels, 18 cents; lobsters, 10 cents; soft clams, 30 to 60 cents per 100; Long Island trout, \$1; Canada do, 50 cents; hard shell crabs, \$4 per 100; soft crabs, \$1 50 per dozen; frog legs, 35 cents per pound.

**VERMONT.**—Lake Champlain is now resorted to by black bass fishermen, who report excellent catches.

**RHODE ISLAND.**—Perry Ralph caught seven hundredweight of bluefish near Point Judith, July 25, and six hundredweight July 26.

**CONNECTICUT.**—*South Vernon.*—Black bass fishing in the Connecticut now affords excellent sport.

*Sunbury.*—There was killed, recently, a night heron, eighteen inches high, with neat glossy plumage, and having three white cylindrical feathers, six inches long extending back from its head.

*Mystic Island.*—On the 4th ultimo friend Herbert and your humble servant packed traps for a few days sport, and took seats in the New Haven and Shore cars for Noank, Conn. A few days stay in camp induced us to strike tents and go over to Mystic Island, a beautiful cool and inviting spot, free from that pest, the mosquito, lying one mile out from shore. On the island we found a good hotel and good fishing. Our take was as follows, viz.:

July 9.....	2 lines.....	3 hours' fishing.....	23 fish
July 10.....	4 lines.....	8 hours' fishing.....	122 fish
July 21.....	1 line.....	2 hours' fishing.....	30 fish
July 22.....	2 lines.....	6 hours' fishing.....	53 fish

Tipping the scales at 10 lbs., 6 lbs., 4½ lbs., 4 lbs., down to ½ lbs.

This island is situated on Fisher's Island Sound, and is about one hundred miles from this city, and the salubrity of the climate, the constant cool breezes, the shady walks, the ex-

cellent anchorage for yachts, and its accessibility to the main land should make it a favorite summer resort. WALTER.

**MASSACHUSETTS.**—*Newburyport, July 30.*—E. F. Hunt and J. M. Eaton captured a horse mackerel ten feet long, seven feet girth, and weighing about eight hundred pounds. He had several fins, varying from a foot to eighteen inches long, a large head which resembled that of a mackerel, and skin very hard and of a silvery color.

**MOVEMENTS OF THE FISHING FLEET.**—During the past week 84 fishing arrivals have been reported at this port, 10 from Bank trips, 47 from Georges, and 27 from mackereling voyages. Halibut have been in light receipt, 185,000 lbs. Bank and 24,000 lbs. Georges, and prices have ruled high. The receipts of codfish have been about 425,000 from Georges and 400,000 lbs. from the Banks. Mackerel have been in light receipt and there is no stock of consequence on the market.—*Cape Ann Advertiser*, Aug. 3.

**NEW YORK.**—*The Adirondacks.*—Warren P. Brady, Charles Trotter, John M. Propbet and Wm. Gage Brady have just returned from a two weeks' trip among the lakes in the southern part of the Adirondacks, and report the black bass fishing in these parts excellent. They caught great numbers in Lake Paradox, some weighing as much as 3½ pounds. The bass and pickerel fishing in Schroon Lake is also good. Trout- ing in these parts is not as good as in former years, owing to the heavy rains.

**NEW JERSEY.**—*Beach Haven.*—Sheepshead fishermen complain of the wholesale destruction of these fish by the indiscriminate use of nets. Such numbers are taken that great quantities spoil before they can be disposed of. The hook and line fishermen have lost their vocation, and extermination of the fish is threatened.

**PENNSYLVANIA.**—Black bass fishing is unusually good this season at the Falls of the Schuylkill.

**WISCONSIN.**—*Menasha, July 31.*—Fishing has not been as good as usual this season thus far, on account of unusual low water and high winds. But our fall fishing is always the best. The low water, however, is the cause of an immense wild rice crop, larger than ever before, and that means ducks' ducks! ducks!

**A DIPSEY.**—The editor of the *Duck's County (Pa.) Gazette* informs an inquirer what a dipsy is, as follows:

Deep-sea Line (*pro dipses*, n. (Naut.) A line with a plummet at the end, called a deep sea lead, used for taking soundings at sea in deep water.—*Zell's Encyclopaedia*.

When used in fishing a bow of whalebone or steel, having long snoods of horse hair or gut, to which are attached from four to six hooks, is fastened to the deep sea line about a foot above the deep sea lead. The lead rests lightly upon the bottom of the stream, the current carries the snoods at a right angle from the line, so that the baited hook is some distance from the line and bow. The jerk of the fish when biting at the hook is communicated by the elastic bow to the line, so that each nibble is distinctly felt by the fisherman in the boat above. This is called a bow-line. The deep sea line is often used without the bow, having the snood attached directly to the line, but the bite of the fish is not as plainly felt as with the bow. A gravel bottom is best for white catfish and perch, and a muddy bottom for yellow catfish and eels. The combination of the fish hook with the deep sea line was the invention of the river boatmen, who use the line and lead for their soundings in foggy weather, and who ascertained that by fastening a short line with a baited hook at a little distance above the lead, they could have excellent sport with bottom fish in deep water. The apparatus has of course been greatly improved since. The word "dipsy," or "dipsey," is merely a corruption of the original.

[The editor of the *Gazette* devotes two columns of his paper each week to shooting, fishing and the like, just as Brother Frcas, of the *Germantown Telegraph* has done for many years. This department is well edited.—Ed.]

**SHAD FISHING.**—About a mile west of Point Judith Point there is a bend in the shore called Sand Hill Cove, and in this cove, feeding among the eel grass, I have seen more than 100 sharks at one time, ranging from the length of a man's arm to that of a good-sized row-boat. Thirty-five years since catching sharks was regarded rare sport, as well as profit, for during the days of tallow dips and whale oil as illuminators, the oil extracted from sharks' livers was looked upon by longshoremen as of no mean quality, since it burned in a lamp as well as the best right whale oil. One day in 1842, a friend by the name of Jacques and myself proposed to clear Sand Hill Cove of sharks, and to that end armed ourselves with a large hook linked to about four feet of chain, a seine warp for a line, part of a cedar fence-rail for a dobber, an old musket bayonet secured to a rake-handle for a lance, strong grunts (a double-pronged barbed spear), a good large row-boat, two bushels of bunkers, and a stone for an anchor. Anchoring on the ground we placed in a net-bag twenty or thirty mashed bunkers, and hung them over the bow to churn up and down with the motion of the boat; we also placed on the hook a couple of fish and threw out for a nibble. Soon the blood, scales, etc., from the bunkers began to raise a stir among the fish, and they came—large sharks, small sharks, fat sharks, lean sharks, and sharks by the hundreds; some sailing along slowly, almost touching the boat; others darting around with the speed of an arrow. Our hook proved too large for the small fry, they bothring us by picking off the bait; but we made sad havoc among the moderate-sized fellows with the grans. After catching a dozen or more of the smaller fry, an old 14-footer swallowed the hook, and to hold him was fite trying to hold a steamboat. We, however, got a turn around the stern-post and checked him, when he walked off with the boat, anchor-stone and all. After a prolonged tussle we got him within reach of the lance, with which we soon settled his hash and towed him to the shore. During the day we took sixty-eight with grans and three with hook. The livers of this catch would yield more than one barrel of oil, and the variety was made up of blue, shovel-nose and mackerel sharks. It is almost needless to say that the seventy-one sharks captured did not diminish the numbers that frequented the cove.

Sharks when taken in a boat are worse than byenas to bite, and have to be killed, which is conveniently done by severing the spine, or tapping them just above the root of the pectoral fin with a knife. They are regular ocean hawks, prowling about, pouncing upon, and eating multitudes of valuable fish, and a crusade against them would confer a blessing upon the human species. For twenty years I have lived by the sea and amused myself in catching sharks and other fish, and notwithstanding the former are numerous, and people are constantly exposed, I never knew one to attack man, and never saw a person that had witnessed such an occurrence.

Rational Pastimes.

Chess.—There seems to be a revival of interest in the game of chess. Thursday, July 19, a meeting of chess editors, players and problemists was held at the "Cafe International," 680 Broadway, and the "American Chess and Problem Association" was formed with the following officers: E. B. Cook, Hoboken, N. J., President; J. G. Belden, Hartford, Conn., first Vice-President; J. G. White, Cleveland, Ohio, second Vice-President; J. B. McKim, Cleveland, Ohio, Secretary; Dr. C. Moore, New York City, Treasurer. Executive Committee.—Philadelphia, Encarnon Bennett; New York City, Henry C. Allen; Chicago, Dr. Spencer; Boston, Benj. Ware; Detroit, C. C. Rogers. R. H. S.

PROBATIONISM.—A walking match between two well-known English pedestrians, W. Howe and W. Perkins, came off at Littlebridge, London, England, July 16th. The race was won by Perkins, who walked 22 miles, 190 yds., in 2h. 55m. 52s. This is a wonderful performance, and surpasses any three hours' walk heretofore attempted.

—At New London, Conn., August 1, Miss Bertie Le Franc walked forty-two miles in 9h. 15m. 2s., making her last mile in 9m. 54s.

—The jumping match for \$1,000 and the championship of America, which took place at San Francisco, July 23, between J. R. Slode, of Omaha, and Richard A. Hill, was won by Hill.

CLAN-NA-GAEL SPORTS.—Brooklyn, Aug. 2.—Summary: Three Standing Jumps.—D. McMahon, 35 ft 6 1/2 in.; T. Lynch, 35 ft 5 in.; Hop, Step and Jump.—James Daley, 38 ft 6 1/2 in.; D. McMahon, 38 ft 5 in.; Heavy Weight Contest.—J. Daley, 47 ft; T. Lynch, 21 ft; D. Loughridge, 20 ft; Throwing the Light Stone.—J. Daley, 41 ft 11 in.; W. Persel, 46 ft 9 1/2 in.; Sack Race.—Won by F. Marshall, who did 550 yds in 1 m 17 3/4 s. Half Mile Walk.—S. Marshall, 4m 24 1/2 s.; M. Sittler, second. Mile Run.—S. Carney, 4m 50 s.; M. J. Gilligan, second. Hurdle Race.—A. C. Reid, 2m 30 3/8 s.; F. Marshall, second.

NEW YORK ATHLETIC CLUB.—The second annual championship games (open to all amateurs) of this club are to be held at Mott Haven, Sept. 8th. Intending competitors can secure all necessary information by addressing A. H. Curtis, Sec., P. O. Box 3101, New York.

ADELPHI AND ATHLETIC CLUBS, Capitoline Grounds, Brooklyn, July 30.—Summary: One Hundred Yard Dash.—Wm. Holden first, David West second, and Jared Hillyer third; won by 5 yards, 2 yards separating second and third. Time, 1 1/2 seconds. Parting the Shot.—C. Waigan, 25 ft 2 in.; Jared Hillyer, 24 ft 10 in.; G. Pratt, 23 ft 9 in. Sailing Long Jump.—J. Hillyer, 8 ft 9 in.; C. Weiland and S. S. Hooper both cleared 8 ft 8 in.; in deciding jump latter defeated. First Mile Walk (amateur open).—E. C. Hesse, Harlem Athletic Club, first; Barnea, of the same club, second; W. Van Ripper, of the same club, third. Time, 17m. 17 1/2 s. Pole Vaulting.—Hooper, 7 ft 3 in.; Hillyer, 7 ft; West, 6 ft 8 in. Standing High Jump.—Hooper, 4 ft 1 in.; Hillyer, 4 ft 1 in.; Hooper won on second trial. Weiland, 35 ft 4 in., was third. Two Hundred and Twenty Yard Run.—William Holden won in 35s; D. West second, J. Hillyer third. One Mile Run.—W. J. Duffy, of the Harlem A. C., won in 4m 58 3/4 s.; Richard Morgan, Harlem A. C., second. Running High Jump.—D. West, 4 ft 6 in.; H. Faulkner, 4 ft 6 in.; Paul Smith, 4 ft 6 in. Hop, Step and Jump.—W. Holden, 34 ft 2 in.; Hillyer and Hooper tied on 34 ft; won by Hooper. Throwing the Hammer.—E. Flynn, 48 ft 5 in.; Hillyer and West both cleared 46 ft; deciding throw in favor of West. One Mile Walk for Club Members.—Holden won in 5m 58; Thompson second, Ransom third. One Hundred and Twenty Yard Hurdle Race.—Jared Hillyer won in 22 3/4 s.; David West second.

MERION, OF PHILADELPHIA, VS. MANHATTAN, Brooklyn, Aug. 3.—Summary:

Table with columns for MANHATTAN and Second Inning, listing names and scores.

Table with columns for MERION and First Inning, listing names and scores.

MERION VS. STATEN ISLAND.—Staten Island, Aug 4.—The score was as follows:

Table with columns for MERION and Second Inning, listing names and scores.

Table with columns for STATEN ISLAND and Second Inning, listing names and scores.

Answers to Correspondents.

No Notice Taken of Anonymous Communications.

C. A. W., Fairland, Ind.—The Remington gun is a good gun for its price.

J. M. C., Canandaigua, N. Y.—Can you send me Fowler's "Birds of Central New York" in any other form than in the FOREST AND STREAM? Ans. We cannot.

S. W. J., North La Crosse, Wis.—Is there anything I can put on my tent to make it fireproof? Ans. Yes, but it will cost as much as to buy a tent already fireproof and will be likely to spoil the tent you have. Best buy a new tent.

H. G. C., New York.—Will you please be so kind as to inform me where, in this city, I can obtain a pair of cotton stockings suitable to wear with knee-breeches for shooting purposes? Ans. Thomson & Son, 301 Broadway.

T. W. E., Houghton, Mich.—Please inform me in regard to the target on the front page of your paper? Ans. The target is placed there as an ornament to hide a hole at its back. It is not to shoot at.

H. M., Frankford Arsenal.—Please give me a good recipe for the wicked flea? My family of pups is pestered thereby. Ans. Persian insect powder is said to be good. Powdered leaves of the flowering pyrethrum (Pyrethrum roseum).

CRESSON, New York.—Will you inform me whether I will find any shooting at Cresson Springs, Pa.? Is that a good locality for squirrel shooting? Ans. We are so informed, but squirrels are somewhat migratory in their habits, and cannot be depended upon to inhabit any one place for two years consecutively.

LACHINE, Montreal.—Under the rules of first-class American or British rowing clubs are pin oars (that is, oars with a hole through them working on a pin in the gunwale of the boat) allowed to be used at their regattas or not? Ans. We believe not.

H. S., Boston.—Can you give me the name of a book giving names and description of the different insects? Ans. "Our Common Insects," by A. S. Packard, Jr., published by Estes & Lauriat, Washington street, Boston, Mass., will give you all desired information.

B. L. C., Central City, Iowa.—I wish to obtain the rules for governing rifle clubs, if such rules are printed. Where can they be obtained? Ans. Remington's catalogue has them, or you will find them in the "Forest and Stream Hand-Book for Riflemen." Published by J. B. Ford & Co.

J. H. B., Cincinnati, Ohio.—Where can I find good fly trout fishing in West Virginia? Ans. The Blackwater region of West Virginia; reached via wagon road, twenty-eight miles from Oakland, Md., on the Baltimore & Ohio Railroad, affords excellent trouting in September. Write to Wm. Kitzmiller, Oakland, Md., or Thomas Basley, of the same place.

W. N., Gorham, N. H.—I have three young wild black duck about one-half grown, which I wish to raise for decoys. What is good feed for them, and what kind of shelter is best for them through our winter months? Ans. House and feed them same as tame ducks, giving a little raw hashed meat occasionally. Send to Wm. Lyman for his catalogue of rowing gear.

OHIO, Cincinnati.—Is there such a thing as shooting deer with a shot gun? Please tell me the bore, length, etc., that would be best adapted for miscellaneous shooting? Ans. Yes, it is very common; may prefer the shot gun to the rifle for this purpose. For general shooting we prefer a 12-gauge, 8-lb. gun, with 30 or 32-inch barrels.

C. E., New York.—Is there a good pocket guide to Nova Scotia published? Also, will there be any good hunting on the north coast or in the Bay of Fundy this month? Ans. Map at A. W. Makinlay's, Halifax, N. S. Moose hunting is permitted Sept. 30, but a license of \$20 is first demanded.

SUBSCRIBER, Brooklyn.—I have a small terrier dog, and in cutting his ears part of the lobe of one ear was cut, and it has never healed. Can you inform me of any preparation which will heal it? Ans. Wash wound clean with castile soap and tepid water. Then bring the edges together, and cover them on both sides with a strip of cloth on which simple cerate has been spread, then fasten them down with collodion and leave until well.

M. R. H., Shelbina, Mo.—1. Would you advise me to buy a breech-loader with a pistol stock or not, and what is its advantage? 2. Do you think that English chilled shot will give better results on quail and grouse than soft shot? Ans. Yes, it is much easier to manipulate. 2. There is a diversity of opinion regarding chilled shot. Our best shots say that it is superior to soft shot only when shooting from the trap with a gun that is heavily choked. The trap you speak of is not in the market. The Bogardus trap is best known; price \$6.

W. H. T., Kendallville, Ind.—Can you inform me of the nature of the small grub found in black bass? I examined one to-day and it was almost identical with our common bloodsucker, except in size and color. Are bass fit for food when these grubs are to be found in them? Ans. Almost every fish has its own peculiar parasite. As to being fit for food, it is a matter of opinion; they are eaten at such times by some, and so are the inhabitants of the capillary substance which adorns the occipito frontals of the Diggers by the proprietors of these pastures.

F. W. B., New York.—How can I cure fish so that they will keep until winter? Ans. Take your fish and split it open; wipe it clean, but don't wash it; lay in a keg, skin down and sprinkle on each layer of fish a mixture composed of one-half salt and one-half Muscovado sugar, putting on about one-half the quantity usually used in salting fish. On arrival home, re-pack, using a very small quantity of the same mixture. Rinse in fresh water before cooking.—Hallock's Sportsman's Gazetteer, page 357.

FRANK HASKELL, Sacarappa, Me.—I notice that in two instances in your Answers to Correspondents, you have informed the inquirers that they could shoot woodcock in certain places in this State during the months of July and August. I would suggest that it would be well to inform such inquirers that there is a game law in this State, and that there are also sportsmen here who will enforce it. You have published an abstract of the game law of Maine in FOREST AND STREAM and its provisions should be made known to the inquirers mentioned above. Ans. We do not discover the instances to which you refer, but we do find in our last issue the information given to a correspondent that woodcock cannot be shot in Maine before Sept. 1, according to our law. We have a standing list of game in season at the head of our Game Bag and Gun column, which our readers seem to wholly ignore.

C. R., Passaic, N. J.—What shall I do to effect a cure of the eyes of my setter puppy? In the inner corner of each eye is a lump of hard, fleshy matter, protruding about one-quarter of an inch, and about the size of the end of a man's little finger. It is now only about half the size of what it was at first. Ans. The lumps can be removed by the use of glacial acetic, or by chromic acids, but they demand great care

in using. The former is preferable, and the contiguous parts must be first touched with sweet oil. Better yet, consult a surgeon, and let him remove with scissors.

CHAMBERLAIN, New York.—Will you please inform me what the regulation length of the 10-pound hammer handle is? and also please give the three best throws of the 12-pound hammer? Ans. We are unable to give the regulation length of hammer; we believe this is usually decided by each association for itself. The best throws of the 12-pound hammer are not on record. That of 16 pounds was 123 feet 6 inches, by E. S. Brown, April 6, 1878, at London, England.

BACK-ACTION, Noroton, Ct.—You say in your Answers to Correspondents to use as much powder in a shot gun as the shoulder will bear. I use 4 drachms of Lightning powder in a Remington 12-bore, 8 1/2-lb. breech-loader, but could bear a drachm or so more, if I could get it in my site. I use one ounce of shot and two wads over the powder. Could I use 4 1/2 drachms or 4 3/4 drachms powder and 1/2 ounce shot with good effect? Ans. Hardly; you had best be satisfied with the charges you are using.

SUBSCRIBER, Duxbury.—Will you kindly inform me what you consider the best food, also of vegetables, for setters in warm weather, and how to prepare the same? Ans. Spratt's biscuits are excellent. Barley and oatmeal, the dross of wheat flour, or any mixture of these same with broth or skimmed milk, is very proper food, varying it twice or thrice a week with greaves from which the tallow has been pressed, mixed with flour; or sheep's feet and heads, well baked or boiled, forms a good diet.—Hallock's Sportsman's Gazetteer.

G. H. R., Gainesville, Texas.—I saw a hawk to-day the size of B. lincaes, and somewhat the shape, sailing overhead (and it poised for some seconds within gun shot), which was pure white underneath, excepting a dark brown pectoral crescent and the tips of primaries and secondaries, which were black. As well as I could see, the upper parts were brownish or bluish. I have seen perhaps a dozen of those birds this season, but never so closely before. Can you tell what it is? I have never seen Blanius leucurus here, and thought of it, but the tail was not white above, and I thought it too heavy for a kite. Ans. We should not dare to conjecture what it may have been. The description is too meagre.

INQUIRER, Dorchester, N. Y.—1. Do you consider the seven-shot revolver, advertised by Western Gun Works for \$3, a good, safe and reliable weapon? 2. Which of the following three guns would you prefer for general use, everything considered? (1) a \$45 Remington, (2) a \$50 Parker, (3) a \$50 Fox? You may designate above by numbers if you prefer, so as not to discriminate between manufacturers openly. 3. Do you consider the rifle advertised by Turner & Ross, in your issue of July 5, equal to a \$20 rifle? Ans. 1. Probably as good as any for the money, but we don't want any. 2. We do not discriminate between manufacturers; all have their respective merits. 3. We know nothing of it.

R., Goshen, N. Y.—Can you tell me what to give my black and tan dog to enable him to retain his food? He eats heartily, but for over two months has thrown up everything he takes into his stomach. Is seven years old, seems bright and lively, but has been devoured by fleas; have tried carbolic soap without much success. I have used sulphur in the water given him to drink, as has been suggested, but nothing seems to help him, and as he is a great pet we are anxious to relieve him. Ans. Give him 5 grains of the following powder three times a day: Powdered rhubarb, 6 drs.; powdered white castile soap, 2 drs.; powd. cubeb and sepandrin, of each 1 dr. Mix in mortar, and pass through a fine sieve. To rid him of fleas, use a powder of pyrethrum roseum (dowering pyrethrum).

R. R. D., Rochester, N. Y.—Can you inform me where, either in Canada or Northern Michigan, I can find good shooting and fishing in the month of October, also routes of reaching same? Ans. Go to the St. Clair Falls. Take railroad to Buffalo, then Grand Trunk Railroad to Port Huron, Mich.; thence by Star line of steamers to the Star Island House at the Flats. Good fishing for bass, pickerel (wall-eyed pike), etc. Plenty of wild fowl. If deer shooting is desired, write to Robert Graham, Peck Post Office, Sanlac County, Mich., and inquire for terms, etc., which, if satisfactory, you can arrange to have him meet you at Lexington. Lexington may be reached from Port Huron by Star line of boats, being 25 miles away. Graham knows every inch of the peninsula between Lake Huron and Saginaw Bay, and is very reliable.

F. J. L., Williams' Rauche, Texas.—I determined last fall to go into the sheep business, and had some Leicesters and Scotch black-face sheep sent over from England. The sheep have all done well except that they have had what we call "Smurles" (I don't know what you call it here). It is a severe running at the nose. I have tried pine tar on their noses, and given them wood ashes in the salt, but neither has had any beneficial effect. Although this is foreign to sporting, could you please tell me of anything to cure them of their ailment? Ans. No remedy has been found that is considered at all reliable. The inhalation of the vapor of turpentine often proves beneficial, or asafetida dissolved in milk may relieve. It is said, also, that a second attack is inevitably fatal.

W. A. C., Andover.—I have a large English pointer dog two years old. One of my kind neighbors had the cruelty to lodge a bullet from a large navy revolver in him just back of his armpit, on the left side. That was three months ago, since which time he is apparently all well; but as soon as I work him, and he gets a little excited, he will tumble over, acting perfectly blind, will run into trees head first, and finally end in falling down in a spasm, frothing copiously at the mouth. When he recovers he will stand off and bark at me, but still he will obey my commands. If water is near he will plunge into it, but he leaves him very weak. Is there any cure, or shall I kill one of the best trained of dogs? Ans. No, we should not kill him, but trust time and nature to repair the injury done to his nervous system.

J. T. B., Stamford, Ky.—I was out salmon and bass fishing in strange waters to me last week, and had fly fishing suggested by the promptness with which a large fly was gobbled every time I saw one fall upon the water and vainly struggle to rise. It is superfluous to tell you I know nothing of entomology, as my description will proclaim. A large, lead-colored fly, similar to dragon; long, slender body, large wings, (I thought two pairs to each insect). Natives couldn't tell me a name. I had never before seen one. They say the fly has "pinchers" at head and rather long "feelers." It is evidently a very killing fly, and if you can conjecture what it is, please advise me what fly to call for. I propose returning to the Clear or Middle Fork of Rock Castle this fall, and intend to try fly-fishing. Haven't been able to procure the "Gazetteer" through our book dealers yet. Feel assured I shall find desired information in it. Ans. There is no doubt one of the Libellulidae, but of what species, or even genera, it is impossible to say.

—Undoubtedly one of the best and cheapest stocks of Carpets, Oilcloths, Mattings, etc., to be found in the United States is that of Messrs. JOHN H. PRAY, SONS & CO., Washington street, Boston. I. W. Adams is the sportsman of the firm, and will take special pains to please any of our friends calling upon him or with any orders sent him. It is a good, reliable house.—[Ad.]



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INDOOR RECREATION OF MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.  
(Post Office Box 2832.)

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, AUGUST 9, 1877.

To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts. Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mailservice if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

CALENDAR OF EVENTS FOR THE COMING WEEK.

Thursday, Aug. 9.—Trotting: Hudson, N. Y.; Prophetstown, Ill.; Tiskilwa, Ill.; Sullivan, Ill. Base ball: Cincinnati vs Chicago, at Chicago; Louisville vs St. Louis, at St. Louis; Manchester vs Maple Leaf, at Guelph, Canada; Buckeye vs Allegheny, at Allegheny; Resolute vs Stove, at Meriden, Conn.; Louisville vs Milwaukee, at Milwaukee; Rochester vs Wilkesbarre, at Wilkesbarre, Pa. Creedmoor: Infantry, 6th Brig., 2d Div. Scull race between Hosmer and Driscoll.

Friday, Aug. 10.—Trotting: Prophetstown, etc., as above. Base ball: Hartford vs Boston, at Boston; Louisville vs Milwaukee, as above; Rochester vs Wilkesbarre, as above; Resolute vs Waterbury, at Waterbury, Conn.; Monticello vs Osceola, at Jersey City; Enterprise vs Volunteer, at Poughkeepsie. Creedmoor: Infantry, 11th Brig., 2d Div.

Saturday, Aug. 11.—Running meeting; at Saratoga. Base ball: Hartford vs Boston, at Boston; Cincinnati vs St. Louis, at St. Louis; Louisville vs Chicago, at Chicago; Resolute vs Independent, at Norwalk, Conn.; Star vs Quickstep, at Greenville; Magnolia vs Continental, at Prospect Park; Arlington vs Alaska, at West Brighton; Enterprise vs Active, at Wappinger's Falls. Creedmoor: Practice. Scottish-American Athletic Club games. Virginia City Caledonian Club games. Glass ball shoot at New York.

Monday, Aug. 13.—Running meeting, as above. Base ball: Cincinnati vs St. Louis, at St. Louis; Louisville vs Chicago, at Chicago. Creedmoor: Cavalry, 1st Div.

Tuesday, Aug. 14.—Trotting: Lowell, Mass., Warwick, N. Y.; Pittsfield, Mass.; Gardiner, Me.; Mendota, Ill. Running meeting, at Saratoga. Creedmoor: Practice of American Team. Rowing: Dole vs Brown, at Providence. Regatta of South Boston Yacht Club.

Wednesday, Aug. 15.—Trotting, as above. Running meeting, as above. Creedmoor: Third competition for Ballard mid-range rifle, N. R. A.; at 2.30 P. M., Stock Exchange Rifle Club competition for the bronze National Association medal. Regatta: National Association of American Oarsmen, at Detroit, Mich.; Championship Race of Quincy Yacht Club, off Mear's Hotel, Quincy Point, Mass.

Thursday, Aug. 16.—Trotting, as above. Running meeting, as above. Creedmoor: Infantry, 11th Brig., 2d Div. Regatta, at Detroit as above Albany Caledonian Club games. Glass ball Championship tournament, at Brooklyn Driving Park.

—With this issue begins the fifth year and ninth volume of the FOREST AND STREAM. The object of this paper has ever been to promote a healthful interest in outdoor recreation, and cultivate a refined taste for natural objects. At no time has the paper been so strong as at present. In its enlarged form, and with the careful attention paid to subjects which come within its scope, it is emphatically the journal of the American Sportsman and naturalist.

ARCTIC EXPLORATION.—Capt. Howgate's Arctic expedition left New London Aug. 4th for the Polar seas.

GAME PROTECTION.

THE MASSACHUSETTS GAME LAW.—In our issue of July 26 we published a letter from Mr. John P. Ordway, respecting the defects of the law as it now stands, and the response from Mr. W. Minot, Jr., as appeared in the Boston Globe. Dr. Ordway replies as follows:

Sir—My attention has just been called to a letter from Wm. Minot, Esq., published in your paper of the 23d inst., assuming that the present game law is, although very defective, sufficient to convict, from the fact that the birds being in possession out of season is *prima facie* evidence, and throws the whole burden of proof on the offender. But does Mr. M. assume that *prima facie* evidence is positive evidence? and does he not know that in almost every case of possession the birds have been expressed from one place to another, so that the buyer is warranted in saying they came from Rhode Island, or Connecticut, or some other place, and could not swear they were killed in Massachusetts? There are so many ways of evading the law in its present shape, that, as I stated in my former letter, it is, in my opinion, virtually good for nothing. The eighth section of the game laws undoubtedly gives power to obtain a warrant from any judge by the complaint stating that persons have woodcock or quail in possession, but the misfortune is that the first section states where the birds must have been killed in order to convict. I consider Mr. Minot an excellent lawyer, and should be pleased to have him try a few cases, but an afraid he would spend his time and talents in trying to convict without avail. He can probably find the birds on sale in almost any provision store where game is kept, and if he thinks the eighth section a saving clause, I trust he will put the matter to a test. Charles Hallock, Esq., editor of the FOREST AND STREAM, in his latest issue, says: "The Massachusetts law is certainly defective, and should be altered, if intended at all to accomplish its purpose." As one of the executive officers of the Massachusetts Fish and Game Protective Association, acting upon the opinion of several legal friends, I should not personally feel willing to risk the reputation of our society by obtaining warrants under the present law. JOHN P. ORDWAY, Pres. M. F. and G. P. Association.

[Mr. Ordway is undoubtedly right in this matter, and as before intimated, we consider it a disgrace that the Commonwealth of Massachusetts passes a law that allows her residents to cross her borders and violate the enactments of other States with impunity. He who crosses the line into contiguous States and kills woodcock out of season is safe when he returns, to Massachusetts, by simply proving that the game was not killed within her boundaries, consequently the law as it now stands encourages crime.—Ed.]

—An epidemic of some kind is prevalent among the deer on South Mountain, Pa. Several have been found dead and others found with bodies drawn up, cramped and almost bent double.

WHO KILLED THE BIRD.—The following solution is offered for this too often difficult problem:

Request the disputants to assume, as near as possible, the positions they held while firing, and then place the bird with wings extended at about the distance it was from them when flushed. This forms a triangle, and by examining the bird examine the point where the shot entered, and the bird belongs to the man on the side of the bird where the shot entered. This method is very simple, and by its use I have many times diagnosed the "role" of peacemaker. WING SHOT. San Diego, Cal.

KILLING BIRDS OUT OF SEASON.—Under this caption the Marshall (Tex.) Tri-Weekly Herald of July 26 publishes the following:

Waxahachie, Texas, June 28.—Young prairie chickens are in season, and fishing splendid. If any of the New York boys will come out next fall I will show them how to kill buffalo.—FOREST AND STREAM.

We are at a loss to understand how a paper professing to be a sportsman's journal can be induced to publish such a contribution as the above. The Forest and Stream may possibly fall into the hands of some would-be sportsman who, as likely as not, would take for Gospel what the Waxahachie pot-hunter (endorsed by one of the leading sportsman's journal of the country) says, and the death of a few half-fledged grouse would probably be the result. We unfortunately have no game law in Texas, or our Waxahachie friend would in all probability be languishing in the calaboose—but it is, we think, hardly necessary to assure sportsmen of any section of the country that chickens (grouse) are not in season in June in Texas (or any other State), and even if they were, that the heat on the prairies is so intense, and water so scarce, that it is almost impossible to get any shooting worthy of the name before September at the very earliest. Such paragraphs as the above are, unfortunately, far too common in our sporting papers; and if, instead of gratifying the ambition of this class of contributors by allowing them to see their trashy effusions in print, the editors of these papers would give them the snubbing they so richly deserve, they would receive the thanks of sportsmen generally, and, to a certain extent, be doing their duty.

[We take great pleasure in promulgating the Herald's ideas, and since our Texas friends feel worried over their shortcomings and our own, we trust that they will take measures that will induce the Legislature of the Lone Star State to enact suitable laws towards the protection of game. We necessarily print many items that we do not indorse, and we supposed that the readers of the FOREST AND STREAM had by this time obtained a pretty fair sample of our opinions regarding the protection of game. If we stopped to score all the notes like the one quoted by the Herald it would keep us pretty busy, for although we do not publish a tri-weekly paper we find the week sufficiently short for our purpose.—Ed.]

NOVA SCOTIA, Halifax.—After September 1st 1877, the game laws as applied to Moose and caribou are as follows:

1. After this Act shall come into operation, no person shall kill, or pursue with intent to kill, any moose or caribou, save only during the months of October, November, December and January, in any year, or shall expose for sale, or have in his possession, any green moose or caribou skin, or fresh moose or caribou meat, or any part of the carcass

of a moose or caribou, killed in this Province, except in the months aforesaid and the first five days of February in any year. The possession of any green moose or caribou skin, or meat, or any part of the carcass of a moose or caribou, during the close season shall be presumptive evidence of such moose or caribou having been illegally killed or taken.

2. No one person, or number of persons forming a hunting party, shall, during any one year or season, kill or take more than three moose and five caribou.

3. Any person or party of huntsmen who may kill a moose or caribou shall carry the flesh thereof out of the woods within ten days after killing the animal, except as regards moose or caribou killed in the latter part of January, which must be carried out within the first five days of February.

4. No person shall set any snare or trap or pits, for the destruction of moose or caribou, under a penalty of one hundred dollars for each offense; and any person finding such snare or trap may destroy the same. The possession of any such snare or trap shall be presumptive evidence of the intention of the person whose possession it is found, to set the snare for the destruction of moose or caribou.

Section 27 will be of particular interest to the citizens of the United States who are wont to hunt in this province. It reads as follows:

No person not having his domicile in the Province of Nova Scotia shall be entitled to the privileges granted by the game laws in force in such Province for the time being, without having first obtained a license from the office of the Provincial Secretary. Every such license shall be signed by the Chief Game Commissioner and countersigned by the Provincial Secretary or his Deputy, and shall be in force for one year from the first day of September in each year, and shall be subject to the enactments of the game laws in force in the Province at the time said license is granted. The fee to be paid therefor into the Provincial Secretary's office shall be twenty dollars, and the fund derived from this source shall be applied toward the expenses incurred in carrying out the provisions of the game laws.

Any person violating this section shall be liable to a penalty of not less than twenty dollars or more than fifty dollars for each offense, in addition to the license fee, and costs of prosecution to be recovered in the manner prescribed by section eleven, and, when recovered, to be paid one-half to the prosecutor and the other half into the Provincial Secretary's office, to be applied as herebefore provided. Officers in Her Majesty's service, officers of the Army and Navy on service in this garrison, shall be entitled to the privileges of the game laws of the Province on the payment of an annual fee of five dollars into the Provincial Secretary's office, for which they shall obtain a license for the period of their service. Licenses granted under the provisions of this Act shall produce the same when required so to do by any Justice of the Peace, Game Commissioner or Warden, or officer of the Game and Inland Fishery Protection Society.

—Of two poachers recently discovered on the game preserves of Baron Rothschild, at Orsy, France, one was immediately shot dead by a keeper, and the other, having slightly wounded one of his captors, was sentenced to twenty years in the galleys. And all for a hare!

DEATH OF ROYAL.—We regret to announce the death of Captain James Esdaile, of Montreal, at the early age of thirty-two years and six months. Mr. Esdaile was a thorough sportsman, in the true acceptance of the term, having an excellent knowledge of the habits of wild animals, birds and fish, as well as the mode of capturing them. He was a valued contributor of this journal, and ever foremost in the rank of game protection. A warm friend and genial companion, his death causes a void that cannot again be filled.

GAME BIRDS OF NEW ENGLAND.

EUROPEAN QUAIL.

FOR several years gentlemen in this vicinity, who are interested in the preservation and propagation of game, have been discussing the practicability of introducing some new species of game birds into New England. When we consider how few we have of really game birds—birds that will lie to and are hunted with dogs—and these few growing fewer and fewer every year, the reason for this solicitude will be obvious. If we name partridges (*Bonasa umbellus*), quail (*Ortyx virginianus*), woodcock (*Philohela minor*) Wilson snipe (*Gullinago wilsoni*), we have enumerated about all that are worthy the attention or consideration of sportsmen. There are a few other species, some of which will lie to a dog, that are occasionally admitted to bag; but to a true sportsman, who enjoys the manly and invigorating exercise of the field, they offer very little satisfaction. Among the indifferent birds, the spruce partridge (*Canace canadensis*) which inhabits the northern part of New England, is of good size, and will sometimes lie to a dog, but are not numerous. Their home is a great way off from sporting centres, in a region where there are very few other game birds; are difficult to shoot, slying about in dense spruce or hemlock forests, and, gastronomically, are of no account, nor are they often on sale in our markets.

We have at times several species of the rail family, but they arrive late and depart early, are here during the hottest weather, are found only in reedy bogs or filthy sloughs where no sportsman likes to go; and although most game dogs will point them, they have no dignity of character, and while the dog honestly thinks he has game, the little Rail is running, swimming, diving, flying—anything to sneak away and puzzle his pursuers until he is far over the bog or thick reeds, beyond reach, or, if reached, is a poor reward to dog and man, and in this latitude is almost never hunted "per se." Further south they are more abundant, and one may fill a bag or boat as he pleases.

Along some of the hill-tops or valleys of New England one occasionally meets with a very delicious bird, the upland plover (*Actitis bartramia*), but they will not lie to a dog or anything else, are very wary, will respond to no call note or decoy, and are hardly to be considered game birds in the sense we have indicated.

There are a few other birds that are sometimes shot, among them the meadow lark (*Sturnella magna*), which most any bird dog will point; but the bird will lie as well to a man or cow as to a canine; nor are they regarded as very gamey.

Snipe shooting is, we believe, everywhere regarded as very fine sport, than which, in some sections of the United States, none is better. In New England—more particularly in the northern and eastern parts—none is, however, more uncertain

or perplexing. They are here to-day and there to-morrow, never staying long in a place, and some seasons scarcely making an appearance at all, though, when found, lie tolerably well to a dog, and are a nice, palatable bird. We have been unable to suggest any of the *Scelopora* as a substitute or auxiliary. There are many species of the suipe in the world, but their habits are so nomadic as to render hopeless the task of localization or breeding.

The woodcock is, to our mind, the crown jewel, the very *ne plus ultra* of all sport. To a man who loves a well-bred, well-trained dog, and also loves shooting in cover with—our dear old Isak Wilton used to say—"a companion that is cheerful and free from swearing," no bird gives so much pleasure, so much real joy and satisfaction as this noble bird—the woodcock. They arrive in March, breed early, stay with us till November, and would probably be quite plenty if we could enforce a law making all the year, except September, October and November, a close season. But these birds are mercilessly pursued by old and young, in season and out of season, with all sorts and conditions of arms and animals, until it is almost impossible to make a respectable bag. It is believed that some of our finest woodcock sections have been ruined by the birds being killed in June on their breeding grounds, and none are left the following spring, as they are wont, to return to the place of their nativity to reproduce their young. Stringent laws have been granted by the Legislature, but there seems to be no disposition on the part of the gunners to observe, or the authorities to enforce these laws. Game laws are looked upon by most people as an infringement of their natural and inherent rights, to be spurned and trampled upon whenever and wherever encountered. The earlier settlers of New England had to contend with the savages and savage beasts for the soil they occupied, and only by the skillful use of the gun were they frequently saved from destruction. When starvation stood upon the threshold of the little hut, the gun brought the wished-for meat, and all were happy again. Hunting was a necessity, and what at first was a pinching necessity afterward became a pleasant pastime. As game grew scarce, the aid of the Legislature was invoked for its preservation, but many shortsighted persons declared that gunning and fishing had in this country ever been free, and so they must forever remain. And this is the spirit by which the friends of the protective system are met. Time, observation, statistics, our sporting literature and intelligent sportsmen are doing much to obliterate these prejudices, and yet he who undertakes to correct or reform the habits or morals of a people, has before him no light task. But the question before us now is, can we introduce any new species of waders that will take the place of or aid in preserving our woodcock? Would the European woodcock (*Scelopora rusticola*) if once planted here, be successful in its results? It is a splendid bird, larger than its congener this side the ocean, and if colonized would probably thrive well. It is, however, no easy matter to capture them in such numbers as would be required to stock a continent. It would be a grand enterprise, and we hope some magnanimous individual or rich club will do itself the honor of the experiment.

The partridge is the largest of our game birds, and is eagerly sought, both for table and field. They are hardy, capable of enduring the severest weather, feeding in winter mostly on buds and roosting upon trees, or plunging into soft snow to escape the cold and other enemies. If while thus enmeshed in flaky folds, a light rain should fall and then suddenly freeze so as to form a crust, they would be unable to extricate themselves, and quite likely in this way many would perish. But the most destructive enemy of the partridge is the snare or trap. An expert with these wicked and nefarious contrivances can, in a short time, "cleau out" all the partridges within his reach. No species of bird can, we presume, be exterminated by the gun, while several may be with snares.

Then we have the sharp-tailed grouse (*Pediceetes phasianellus*) of the Rocky Mountains, which would undoubtedly thrive well in the mountain regions of New England. They survive the winters there, why not here? We know that climate, soil and food have much to do with the successful planting and propagating new species of plants or animals. Many years ago some benevolent gentlemen undertook to colonize the pinnated grouse, or heath hen (*Cuspidonia cupido*), on Cape Cod. Ample legal protection was thrown around them by the Legislature, and it was believed they would in time spread and populate the whole commonwealth. But in place of doing this, they gradually dwindle away, most likely from want of food in that barren region, till none are left, save possibly a few on the island of Naushon. This may be another evidence in favor of Darwin's theory of the "Survival of the Fittest." *Phasianellus* may be one of these, while *Cupido* evidently is not. We hope, before another spring, some liberal minded individual will not only stock the Green Mountain range with these noble birds, but also the heaths of Cape Cod.

In Europe, there are several of the partridge family that would undoubtedly thrive well in this country, among them the English partridge (*Perdix cinerea*) is very prolific, feeding in corn and turnip fields, where they persist in staying, and if driven from one part, they immediately rally in another; but as they roost upon the ground huddled together, and are not migratory, it is somewhat problematical whether they would go through our hard winters. The latitude of Virginia would suit them splendidly, and would, we think, if once introduced, make a fine addition to their present stock of game birds.

The red-legged partridge (*Perdix rubra*) of France, was, about eighty years ago, introduced into England by the Marquis of Hertford and others, and has, in some counties, become very abundant. Its flesh is regarded inferior to *Cinerea*, but still is a great favorite with most sportsmen. We do not forget, however, that the winters in Old England are much milder than in New England.

The boon we devoutly desire is a migratory bird. Our native quail is a toothsome, prolific, cunning, gamy little fellow, feeding chiefly on seeds and grains in winter, most of which are within a foot of the ground, all of which are at any time placed beyond his reach by a fall of two feet of snow. Nor is he a good traveler upon tight snow. But it so happens that every few years a deep, damp snow falls in the night-time upon the birds as they are huddled together in a little circle, heads out, and if at such time a sudden change in the weather takes place, so as to freeze the surface, they can never escape. The bones of whole beves have frequently been found as the snow melts away in the following spring. Nay, more; whole sections of country have in this way been depopulated, and then the anxious sportsman must wait long years till the few that escape in some remote corner have time to propagate and spread over the land so as to make good shooting again. The consumer fares better, as he can get a supply from the South or West. These considerations have led to the inquiry as to whether there is not some of the quail family better adapted to our inhospitable climate.

California quail (*Lophortyx californica*) are a very numerous bird along the Pacific Slopes of the mountains, as well as the plains, and at no distant day will, we trust, be transplanted to the Atlantic shores, where it is destined to become one of our most popular and interesting game birds. We understand they are partially migratory, *i. e.*, they travel from the mountain regions to the plains below, or to the seaboard, where there is very little snow, and return again in spring. They lay a great many eggs; in some instances as many as twenty-four, and to cover them, both parents incubate at the same time. Their food is quite similar to that of our quail, but they are more gregarious, often assembling in flocks of several hundred each. Another feature in their habits, and the one most favorable to their propagation here, is that, at the approach of evening, they run from the open fields to the thick oak forest trees, upon which they roost at night. If the habit of roosting on trees is universal, they would escape death by deep snows, and would certainly be a success here if they could be supplied with food. By introducing three or four new species of game birds, we should attract a portion of the gunners from their old haunts, and thereby make better shooting for those who remain; and, further, we shall have added something to our food supply, which is a subject worthy the attention of our wisest legislators.

Of all the game birds that have come to our notice, the one that has most good qualities and best adapted to succeed and prosper in this country, is the common migratory quail of Europe (*Coturnix communis*), or, as Mr. Baird prefers, *Coturnix doolytsonensis*. They are about two-thirds the size of *Ortyx virginianus*, generally lighter color or rufous brown, suffused with fulvous; bill slim, long and less arched; legs slender and nearly flesh color; wings larger in proportion than our quail, and the whole make-up more delicate. Their food is largely insectivorous, as their bills indicate. They lie well to a dog, and often do not all spring at once, but get up one or two at a time, and then give the gun an excellent opportunity to do its work. The bird is very common all over Europe, Asia and parts of Africa, going as far north as Scandinavia in summer to breed, but almost upon the first chill blast of autumn the warning note is given, and the little bevy is summoned to depart from the breeding ground to the more genial climate of the South. In September and October vast numbers of them are seen along the northern shores of the Mediterranean preparing for the long flight across the sea to North Africa, where they pass the winter, and, it is said, bring out another brood of young. The nearest point at which they would be likely to cross must be about 100 miles, which is a long flight for a bird with so large a body and so small a wing. Whether the two continents were originally more nearly united than at present, as is assumed by some of our savants, and the birds by the constant widening of the channel have been gradually educated to these long flights, is not a subject for discussion here. Certain it is that many on their passage are met by storms or adverse winds and perish in the sea. In April and May they return again in serried columns.

On this continent we have very little conception of the vast numbers, the multitudinous millions of these birds. They have been the marvel of all generations from pre-historic periods to the present day. The language of the Pentateuch, the Psalms and of the writers of ancient and modern times would seem to warrant any extravagant expression we might use. "And it came to pass that even the quails came up and covered the camp."—Exodus, xvi, 13. "And there went forth a wind from the Lord and brought quails from the sea and let them fall by the camp, as it were a day's journey on this side, and as it were a day's journey on the other side, round about the camp, and as it were two cubits high upon the face of the earth."—Numbers, xi, 31. "The people asked, and he brought quails and satisfied them."—Psalm, cv, 40. Bellonius says: "When we sailed from Rhodes to Alexandria, about autumn, many quails flying from the north to the south were taken in our ship; and sailing at spring time the contrary way, from the south to the north, I observed them on their return where many of them were taken in the

same manner." Bumstead in his very useful book for young sportsmen, entitled "On the Wing," uses the following language: "It is recorded that on one occasion such a quantity of them appeared on the west coast of the kingdom of Naples that one hundred thousand were taken in a single day, and all within the space of six miles; and on the island of Capri, not far from the city of Naples, so many were annually captured that they formed the principal source of the revenue of the bishop of that diocese, who, in consequence, rejoices in the title of the 'Bishop of Quails.'" Quail fighting was one of the amusements of the Athenians, and in Italy and China at the present time large sums of money are staked upon the issue of a single combat, the same as with us upon the success of our gamecocks. They are sold in Naples and other markets for one or two cents a piece, and their return each season is hailed with joy by the peasants, as aiding to patch out their slender revenues. We must say, in view of all this, that we have not been without our fears, lest, if they were introduced into this country, they would in time become so numerous as to "waste and havoc" our grain fields. The world is said to be governed by equivalents, and it is possible that, in the wisdom of Divine Providence, the Fox gun was invented about the same time that the project of importing these birds was conceived, by the use of which, and other improved breech-loaders, our agricultural interests may be protected from these devouring hordes. So thoroughly impressed were we in favor of this prolific little foreigner that he would fill a gap and furnish food for millions of our people, we set about finding some one who had been in Sicily or Southern Italy that could give us some positive and reliable information about them. For this purpose we visited several ship masters then in port, but none of them had taken the slightest interest in the matter, nor did they evidently care to. We came pretty thoroughly to understand that sailing a ship and shooting quail were quite different occupations and often developed dissimilar characteristics. We were about discouraged. At last we were put upon the track of Capt. P. M. Deal, of the bark Neptune, who had just arrived from Messina with a cargo of fruit and sulphur. The captain not being on board at the time of our call, we walked up and down the wharf, and as we gazed upon the tons of one part of the cargo, we were forcibly reminded of the lessons about the "bottomless pit" we received in early youth from our pious mother, and started for State street. A note soon brought us in contact with the captain, which amply rewarded us for all our trouble. He is a genial, intelligent, communicative gentleman, and withal an enthusiastic sportsman, generally taking on board a fine dog, with which, while in a foreign port discharging and taking in cargo, he manages to get a few days' shooting. He at once entered heartily into the spirit of our plan; had often shot the quail, knew their habits, and would aid us in every way possible. He gave the name of his friend and brother sportsman in Messina, Dominick Fisher, who would be likely to take an interest in purchasing and forwarding the birds to us. The next voyage of Captain B. was to the West Indies, and should we fail in getting the quail that spring, it was understood he would bring out two or three hundred on his next voyage to Messina the following winter. At once we addressed a note to Mr. F., from which we make the following extract:

BOSTON, March, 27, 1875.

Dominick Fisher, Esq., Messina.

DEAR SIR—Several sportsmen in this vicinity wish to try the experiment of introducing European quail (*Coturnix communis*) into this country. But "how are we to get them here?" This is the question that gives us most trouble. \* \* \* We would like to ask if, in your opinion, the birds can be obtained in numbers, say two or three hundred, and, if so, at what price? At what season of the year can it be done? Very truly yours,

W. HARGOOD.

We presume the letter miscarried, as no answer was received. We must now wait till Capt. B. makes his autumn trip, hoping he may get out before the birds migrate for Africa. He did not, however, arrive till near December, when no birds were to be found, and he returned in the spring of 1876 to relate his trials and receive our condolence. What then was to be done? We had worried through a whole year, and were no nearer the goal of our ambition than when we started. Shall we abandon the scheme altogether? No; we will "dwell in our necessity" till another fall, hoping our captain will get an early voyage "up the Straits," and our heart's desire realized. Not so; the gales that ushered in the autumn also warded the "Neptune," with our coadjutor on board, to the ports of Beyroot and Alexandria. We might send an order to Messina, but our success hitherto in that direction had not inspired us with much confidence; and, besides, these birds require a great deal of attention. They must be fed and watered regularly, their cages must be kept clean, and they must be free from a liability to be wet with salt water. We might for a consideration secure the services of a steward to perform this duty, but if the birds were shipped via London or Liverpool, would that service be transferred with them to the ship for Boston or New York? Neglect, mismanagement, a few days' delay might disrupt our whole scheme. Rather than run this risk we preferred to take our chance of getting them at B. or A., as Captain B. had orders before he sailed to bring with him as many as he could, knowing as we did that they would receive the very best of care. He came very near securing 150 at Alexandria, but just as the prize was about to be clutched it slipped, and he came home in early spring empty-handed. Now comes another voyage to the West Indies, but previous to his sailing we instructed him to write to his friend Fisher to ship two or three hundred of the quail, dividing the lot, if he thought best, sending one moiety to New York and the other to Boston, or the whole to either place. They were to be consigned, care of Adams & Co's Express, to John H. Whitcomb, of Ayer Junction, Mass., who had from the very first been one of the warmest friends of the enterprise, for distribution. Late in May we had the satisfaction of receiving a letter from

our correspondent, so positive and hearty that we make the following extracts, which will sufficiently explain itself:

WARREN HAPGOOD, Esq., Boston, Mass.: MESSINA, May 5, 1877. Dear Sir—In pursuance of a letter received from Capt. Beal, I hereby beg leave to inform you that I have to-day shipped by the Eng. S. S. J. B. Walker, bound to New York, two cages containing 250 quails, addressed to John H. Whitcomb, Esq., Ayer Junction, Mass., care Adams' Express Co. \* \* \* Hoping they will reach New York in good condition, I remain, dear sir, respectfully yours,

DOMINICK FISHER. The J. B. Walker arrived in New York on June 5, but owing to some misunderstanding of A. & Co's Express, the birds were not delivered to Mr. Whitcomb until a week later. Mr. Fisher took particular pains to have a couple of nice cages made for the comfort and safety of our little pets, laid in a large stock of hempseed for food, and for personal attention on the voyage gave the steward two pounds sterling, and otherwise took every precaution that friendship or interest could dictate. Whatever may happen to the birds, we shall ever feel grateful to him for his kindness. From some cause or other, 61 were lost on the passage, leaving us but 189 for distribution. By the best observers of the habits of quail, it is understood there is a law regulating their breeding. For instance: A section of country or even part of a township that is overstocked, &c., when there are already too many for the supply of food in that section, they will not pair or breed the following season, but will remain in flocks or bevies. That food supply has great influence on the reproduciveness of both animals and man is a well established fact. It was therefore decided not to liberate all the birds in one place. They might find plenty of food for their liking in one town but fail to do so in another. Foxes or other enemies might destroy them in one place but not in another, and for the greater security, the more certain perpetuity of our little colony, they were scattered in several of the counties in the eastern part of the State. The most serious objection to the division was that the plumage of the sexes is so nearly alike it was found very difficult to select them in pairs. And here let us pause for a word in explanation. It might be inferred from the foregoing that we claim to have originated and consummated the only plan for stocking this country with European quail. We wish it understood distinctly that we put forth no such claim. We have simply narrated our own griefs and joys—our own failures and final triumphs, nor would it become us to attempt to portray the trials and annoyances of others who are much better able to do it for themselves, and yet we would venture a few words in this direction. The Hon. Martin G. Everts, of Rutland, Vt., we understand, had conceived the idea of importing these birds, and had actually moved in the matter as early, or even earlier, than the period at which parties here had begun to agitate or discuss the subject. His letters largely antedate ours, and although at first each acted independently and without the knowledge of the other, it was known to each that the other was struggling to get the birds out for the purpose of colonizing, and each would cheerfully, if he could, aid the other. It was a most singular circumstance that after years of delay and disappointment, each operating through different agents—he through Consul Owens and we through Mr. Fisher, without any concert of action whatever—last our birds should happen to be shipped on board the same vessel and arrive at the same time. And yet such is the fact. Of the two hundred birds invoiced to him only three were lost. By skillful management of transportation his birds were delivered to him and liberated a few days before ours were, and if any one is entitled to the credit of first planting in this country the migratory quail of Europe that man is the Hon. Martin G. Everts, of Rutland, Vt. And now the birds are here what will they do? They have frequently been seen since they were liberated, and it is thought they have mated or paired, which looks well for their future family relations, though we are not certain that any nests or eggs have been discovered. If they breed, will they in this new and strange land, as the winter draws near, with their little families, migrate? If they migrate, will they strike boldly out to sea, thinking they are to cross the Mediterranean and thus perish, or will they follow the coast line or a more inland route to Florida? Will they pass the winter there or cross over to Cuba and there intermingle with their non-migratory cousins (*Ortyx cabanensis*) and so mix themselves up with their mean relations as to lose their identity and forget to return? Or, again, will they nobly fulfill their mission and sustain the confidence we reposed in them when we brought them out of the land of Egypt? Or, still again, will they forsake their migratory habits and stupidly squat down here in the very jaws of relentless winter, where certain death awaits them? If they once go South to pass the winter and return the following spring our triumph is complete. But will they do this? "*Nous verrons.*" W. Hapgood. Boston, July 28, 1877.

P. S.—Since writing the above a note from Mr. Everts informs us that the birds in his neighborhood have brought out several large broods, and he is quite sanguine of success.

W. II. [The above has particular interest in connection with the article on Migratory Quail which appeared in our editorial columns last week. Advices from Rutland seem to indicate that the successful acclimatization of the European quail is assured. We hope that success will crown all efforts in this direction; and also that more of our public spirited sportsmen will engage in this enterprise.—Ed.]

RESTIGOUCHE SALMON.—We are indebted to our friend H. E. Leonard, of Bangor, Me., for two fine salmon caught by him in the Restigouche. They were preserved at J. Porter & Co.'s freezing establishment, at Campbelltown, Nova Scotia, and reached us as fresh as the day they were taken from the river. They were quite three feet in length, and the two weighed nearly seventy-five pounds. It must not be supposed that our gastronomic abilities were sufficient to utilize all of Mr. Leonard's magnificent present. The associate editor has not been able to draw a long breath since, and the staff, generally, are rapidly assuming Lambertine proportions.

—On the island of Orkney lately, the leader of a flock of sheep took refuge during a storm upon a ledge overhanging the sea. The rest of the flock, twenty in number, thinking that the leader had jumped into the sea, leaped over and were drowned.

STRAY NOTES FROM THE EDITOR.

PITTSBURG, Aug 4, 1877.

What a romantic and charming locality Pittsburg must have been before the purity of its atmosphere was tainted by the smoke of the thousand fires kindled among its hills and ridges, and the face of its natural beauty was smothered with lamp-black and soot! When the old Monongahela flowed in the full and unrestrained volume of its excellence, and was not hooped into hogheads to be busted open by unconscionable rioters and incendiaries! Alas! what a desolation these irrepressibles have created. The traveler who comes from the East has to elbow his tiresome way through three miles of total destruction and heaps of rubbish still smoking and smouldering. I have never before seen such concentrated loss, and I have gazed upon the ruins of many configurations. A thousand laborers are now engaged in preparations to re-suscitate; and a thousand volunteers and regulars are here to protect them, quartered in the court house and barracks, and thrown out to the right and left as pickets and patrols in the old-fashioned way, so familiar to all who participated in the great struggle a dozen years ago. One learns to love the soldiers when he needs their protection ("I love the military").

Last night I attended the monthly meeting of the Sportsman's Association, at their spacious headquarters here, and learned with satisfaction that its members have stepped to the front in almost solid phalanx, and enrolled themselves as a military company, 107 strong, under the title of the "Sportsman's Guard," and under the command of Maj. Gen. J. B. Sweitzer, with several veterans of the regular army as officers. They will be armed with shot-guns loaded with buck-shot, and I'll guarantee will be able to disperse a mob with these weapons quicker than with bayonet and rifle. The FOREST AND STREAM once suggested the manufacture of a big-cylindered, burglar-repellant pistol that would throw shot. For mobs and shooting in the dark, scatter-guns will beat rifles in and out.

The Sportsman's Association here was organized 1874, and now has about 200 members. It is a body of earnest game protectors, and so great sticklers are they for law and equity that they are discussing the expediency of expelling, for shooting birds out of season, one of its own members, who happens to be a Chief Justice, which is going behind the bench with a vengeance. The club has one of the finest natural history collections in the country. Its officers are Robert Dalzell, President; D. C. Phillips, Vice-President; John A. Harper, Treasurer; O. F. Wharton, Secretary. It has also an attorney and a naturalist, which all clubs ought to have.

In coming on from New York yesterday I fell in with ex-Gov. William Pitt Kellogg, of Louisiana; and as I found him attentively studying a copy of "Hallow's Sportsman's Gazetteer," I inferentially concluded that he was not so bad a devil as politicians had painted him. He informed me that he was posting himself on angling gear, and intended to give politics a long rest and engage in bass fishing in Minnesota lakes. We hope his lines may fall in pleasanter places than of yore.

I don't hear of any great amount of game along the line of the Pennsylvania Railroad between this place and New York. However, they do say certain game was plenty about here a fortnight ago, when the citizens made the rioters quail. Rail shooting also good—along the track—though altogether out of season. The club proposes to give especial protection to rails hereafter.

I start for Grand Rapids this afternoon. HALLOCK.

THE GAZETTEER.—THE SPORTSMEN'S GAZETTEER was duly received, and myself and many of our best judges in sporting literature have critically examined the book, and all unite in pronouncing it the most valuable work ever issued from the press on kindred subjects. It is a wonder to all how so much valuable information could be so intelligently crowded into a book of its size. The task must have been very great, but has been accomplished in a remarkably concise, intelligent and pleasing manner. Every page demonstrates the fact that the author was competent master of his subject. No sportsman or tourist can afford to be without the book, and it ought to be, and no doubt will be, read generally by the masses, and certainly by all interested in the study of natural history. Lake City, Minn., Aug, 1, 1877. DR. D. C. ESTES.

NOTICE TO SPORTSMEN.—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grilse and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining, to imitate the genuine article) without letting our customers know just what they are getting. P. O. Box, 1,294.—(Adv.) ABBEY & IBERIE, 48 Maiden Lane.

The Rifle.

QUEBEC RIFLE ASSOCIATION.—The programme of the Ninth Annual Prize Meeting of the Province of Quebec Rifle Association will open at the Point St. Charles ranges, Montreal, on the 21st inst., and will continue several days. Eleven competitors are on the list, all the prizes being in cash. The first seven matches are for Snider rifle shooting; competition VIII. for the Strangers' Stakes is open to Sniders at 500 and small bores at 800 yards. In the Ladies' Stakes the small bores fall back to 900 yds. The third match, open to any rifle, is for the small-bore championship, 15 shots at 1,000 yds. Were it not for the work of preparing to meet our English friends, several of our Creedmoor shooters would doubtless pay a visit to Point St. Charles and try their hand in the all-comers shoots.

CONNECTICUT, Willow Brook.—At the shooting on Saturday, the 28th ult., a new member, Mr. W. H. Binns, of Hartford, took the champion long-range badge for 1877. At 800 yards he made 44, at 900 yards 43, and at 1,000 yards 39, total 125 in a possible 150. C. O. Case, of New Britain, scored 121; William Parker, New Britain, 120; W. H. Layne, New Haven, 117. At the 500-yard range, H. P. King, of New Britain, won the mid-range champion badge on a perfect score of 60—ten straight bulls eyes. Mr. King is the winner of the badge for the second time.

MASSACHUSETTS—Fitchburg, Aug 4.—At the rifle shoot held by the Sportsman's Club of this city, Mr. W. B. Haskell made 43 out of a possible 50; Mr. A. E. Robbins, of Gardener, 42, and W. W. South and S. N. Choat of Fitchburg, 40 and 39 respectively. Distance 200 yards. DER FREYSCHUTZ.

THE ELCHO SHIELD MATCH 1877.

SOMEHOW or other our London exchanges find very little space to give the details of the shooting for the Elcho Shield on the 19th ult. It could not surely have been that the details were rejected because of the poor shooting shown, for better scoring has never been done in the Elcho Shield matches; and we will not be so rash as to assert that the fact of an Irish victory in any way influenced the London editorial mind to boil the event down to a mere paragraphic notice. The Daily News, however, looked upon the event as news and treated it accordingly, giving the usual full scores.

The day was a good one for rifle shooting. There was a shower or two. Rain and sun alternated in what we should consider a confusing manner, but the Britishers were at home, and did not care for such trifles.

In the early hours the atmospheric conditions were wholly favorable for spectators to witness the stages of the Elcho Shield. Around this the interest of all marksmen centered, and rarely have they had an opportunity of witnessing grainer shooting than that of the Irish eight. This team led at 800 yards by 13 points above the Scottish, and 30 above the English. They increased the lead at 900 yards, where their total was 60 points higher than the Scottish, while England had pulled up four points, and stood with 991 against the 1,000 scored by the Northerners. But it was at the long range that the great superiority of the Irish team was manifested. Shot by shot they crept away from their opponents. Shot after shot the white disc hung in the centre of the target, and bull's-eyes seemed to fall for them as thick as leaves in Vallambrosa.

The unerring accuracy of every man's aim was perfectly wonderful, and the people pressed close around to see the man whose limbs seemed to possess the rigidity of iron, and whose nerves were susceptible to no external influence. At 800 yards one of the best marksmen had a miss recorded against him, but this, the only one in all their 360 shots, and therefore every man of the team seemed to be endowed with the steadiness of a machine. Changes of light and fickleness of wind influenced them scarcely a whit, and, judging by results, not a rifle could have quivered a hair's-breadth, or the shots could not have clustered so thickly round the central black. Mr. Banks and Major Young each scored 66 at this range, the former putting on eight bull's-eyes, five inners, and two naggies, and the latter nine bull's-eyes, four inners, one naggie, and an outer. These were the highest scores of the Irish team at 1,000 yards, but in the aggregate at these ranges Mr. Wilson took the lead with a score that has never been surpassed, he having made 202 out of a possible 225. Next to him was that prince of small-bore marksmen, Lieut. Fenton of the 77th Regiment, with 201. Mr. Banks scored 200 altogether, and Major Young 199. While the Irish were surely and steadily creeping away from the other teams the English were gradually becoming the lead of Scotland. There had been nine points difference at the previous range, this was decreased a point or two in the first round at 1,000 yards, but increased to 12 by a sad falling off in the English shooting in the next round. Then, however, Scotland began to lose ground again, while the English pluckily struggled to court the lead from them, though there was hardly a hope then of getting up with the Irish. At the seventh round there was a murmur of applause from the Saxons gathered behind their countrymen, when the numbers went up, and England was found to have headed Scotland by two points. Henceforth this lead was increased at almost every round until Scotland was twenty-five behind England. The totals made at this range were: Ireland, 510; England, 473; Scotland, 439. Though the aggregate of two or three Irish marksmen were the highest by several points for all the ranges, the best scores at 1,000 yards was the 69 made by Lieut.-Col. Fenton, of the English team, whose fifteen shots at that distance were placed within a circle of about four feet diameter. He made nine bull's eyes and six inners. When the last shot had been fired, and the throng of spectators saw recorded for Ireland the highest total ever made for the Elcho Shield, a wild cheer burst from the Celtic throats, and Englishmen joined quite as heartily, if not so demonstratively, in acknowledging the grand shooting by which the Irish team had placed themselves more than one hundred points ahead. After a brief daisy Lieutenant Menzies, speaking on behalf of the Scotch team, in the absence of Mr. Malcolm, congratulated the Irish on their brilliant success, and expressed a hope that before long every prize at Wimbledon, including the Queen's, would be open to our gallant brothers from the Emerald Isle. The Duke of Abercorn responded, and repeated the opinion he expressed last year, that the Elcho Shield would be none the worse for a trip across the Irish Channel, at all events they would keep it among them as an honored guest as long as they possibly could. He asked Irishmen and Scotchmen to unite in three hearty cheers for the English eight and their captain, Mr. Wells, whose absence all regretted. Mr. Parsons, the adjutant of the English team, replied, and proposed three cheers for the Scottish team. He hoped that those who had shot so splendidly that day would represent Ireland in America this year, and wrest from the enemies the laurels they so hardly won at Creedmoor last autumn.

IRELAND. J.K. Miller. John Rigby. 5 4 4 4 5 5 4 5 5 4 5 5—68 5 5 4 5 5 5 5 5 5 5 5—72 4 5 5 4 4 5 5 5 5 5 5—71 3 4 5 5 3 3 3 3 5 5 5 5—63 2 3 5 5 5 5 4 4 4 4 5 4—62 4 3 5 5 3 3 4 4 4 4 5 5—61 Total.....202 Total.....193

Table with columns for names (Lient Fenton, William Rigby, L F Banks, Major Young) and scores. Includes a 'Grand Total' row at the bottom.

Table with columns for names (Henry Fulton, G W Yale, J H Crowell, H F Clark) and scores. Includes a 'Grand Total' row at the bottom.

Table with columns for names (Johnston, Welles, Hill, Fielding, Drake, Yale) and scores. Includes a 'Grand Total' row at the bottom.

Table with columns for names (Lient Col. Fenton, Sir Henry Halford, Lient Toller, A P Humphrey) and scores. Includes a 'Grand Total' row at the bottom.

Table with columns for names (G L Morse, Jas Wemyss, Jr, G W Davison, Homer Fisher, L Weber) and scores. Includes a 'Grand Total' row at the bottom.

Table with columns for names (Charles Nash, J Barrer, J W Muller, T B Carson, R J Robertson, B H Ladd, J P Watford, B N Snook, G H Strong, Gen John McComb, William Wright, H Hook, Capt H J Burns, Capt W H Brockhoff, R Unger, C P Layton) and scores. Includes a 'Grand Total' row at the bottom.

Table with columns for names (Sergt McIsaac, Lient Mitchell, Sergt Ferguson, M Boyd) and scores. Includes a 'Grand Total' row at the bottom.

Table with columns for names (Edward Ross, R Luke, Lient Johnston, Capt Thornburn) and scores. Includes a 'Grand Total' row at the bottom.

Table with columns for names (J Welch, W F Leeman, F Alton, R A Sarré, H P Backus, J W Bates, G H Wood, H H Wood, W P Murray, T Murphy, A H Hentz) and scores. Includes a 'Grand Total' row at the bottom.

Table with columns for names (H S Jewell, T S Dakin, Frank Hyde, C E Blenburgh) and scores. Includes a 'Grand Total' row at the bottom.

Table with columns for names (R Rathbone) and scores. Includes a 'Grand Total' row at the bottom.

THE SCOTCH PROTEST.—There has been much talk among the riflemen since the arrival of the news that the Council of the National Rifle Club of Scotland had prepared a formal protest against any so-called British team being allowed to compete for the American Centennial trophy.

Table with columns for names (Isaac L Allen, L L Hepburn, L C Bruce, R C Coleman) and scores. Includes a 'Grand Total' row at the bottom.

Table with columns for names (F J Rabboth) and scores. Includes a 'Grand Total' row at the bottom.

GAME IN SEASON FOR AUGUST. Woodcock, Phalarope minor, Black-bellied plover, ox-eye, Squatarola heterota, Ring plover, Egialitis semipalmatus, Sill, or long-shanks, Himantopus nigricollis, Red-breasted snipe or dowitcher, Macrorhamphus griseus.

Table with columns for names (Thos Lamb, Jr., Rem Creed Rille, A D Hodgman, Wallace Gunn, A V Canfield, Jr) and scores. Includes a 'Grand Total' row at the bottom.

Table with columns for names (Bangs, Johnston, Yale, Welles, Hill, Drake, Fielding) and scores. Includes a 'Grand Total' row at the bottom.

VERMONT, Ferrisburg, Aug. 11.—Summer woodcock shooting began on the 1st inst. Birds are very scarce and weather very hot. Duck shooting opens Sept 1st, and there is but little promise of sport, unless foreign ducks come in before that time.

my thoughts, I caught a glimpse of a small, dark body darting swiftly along the road, and partly hid by the overhanging grass which shaded the track.

Vail, Iowa, July 30.—Prairie chickens will be ripe here Aug. 15. Heretofore they have been picked green; this year they are being protected.

Mason City, Iowa, July 23.—Pinnated grouse are plenty here this season.

NEVADA.—Eller.—There is promise of unusually fine hunting in the vicinity of Elko this season.

GLASS BALL PIGEONS.—Oconomowoc says that in order to give the Bogardus glass ball some semblance to a "bird" when sprung from the trap, it is only necessary to procure a suitable number of corks to fit the neck of the ball; then, with the aid of a Bradawl, place in the cork half a dozen "large" rooster feathers, "with sufficient spread to form some likeness to a bird's tail."

—To keep birds in warm weather, put each between a couple of candock leaves to keep it cool. Have some ground coffee with you.

PIGEON MATCHES.

FITCHBURG, Mass., Aug. 4.—The Fitchburg Sportsmen's Club held their second shooting match at the fair grounds today. The following are the best scores in the ball trap shooting: 10 balls at 30 yards, ten yards apart.

NEW YORK, Ocean Parkway, Brooklyn, Aug. 2.—A return match between the Fountain and Midway Gun Clubs was shot as above, resulting in a tie of 78 birds out of 100 for each club.

Table with 2 columns: Club Name and Score. Includes Fountain Gun Club and Midway Gun Club scores.

PENNSYLVANIA, Bear Farm, July.—Glass ball shoot of the Rod and Gun Club. First shoot, ten single balls, \$1 entrance.

Table listing names and scores for a shooting match, including Park, Wilcox, Shattuck, Deuman, and Smith.

Fourth shoot, five glass balls, \$5 entrance. Davis and Streeter divided first, Park and Wilcox second, Patton third.

Park and Wilcox are matched for \$25 a side, fifty balls each, to shoot Aug. 11. BLUE ROCK.

Orto, Attica.—A glass ball match was shot at this place July 28, between the Republic and Attica Clubs, ten balls each, Bogardus traps and rules; ties to be shot off at three balls each, both clubs shooting together; \$3 entrance.

Table listing names and scores for the Orto, Attica match, including R H Bowersox, W H Mower, D Witter, and others.

INDIANA, Connersville.—The following are the scores of two matches shot at this place July 23, five birds, 21 yards rise.

Table listing names and scores for the Indiana matches, including John Moore, Jas Stewart, W Clark, and others.

NEBRASKA, Omaha.—A series of matches at 25 glass balls, 18 yards rise, were held July 27, with following results: First match—Petty; 21; Hathaway, 18; total, 39.

Table listing names and scores for Nebraska matches, including Hathaway, Ketchum, Cassidy, and others.

—James Shaw, of Manchester, England, has issued a challenge to shoot at fifty pigeons against any man in the world, for £500 a side.

Yachting and Boating.

HIGH WATER FOR THE WEEK.

Table with columns: Date, Boston, New York, and Charleston, showing high water times.

BOATS AND BOAT-BUILDING—3d Paper.

A SCOW OR ERIEF—SAILING YACHT.

PROCURE two boards for the sides, of sufficient length to make the boat eighteen feet long over all when finished; they to be one or one and three-fourths inches thick, and eighteen or twenty inches wide.

Cut a piece of board for temporary, middle, or "mould board," seven feet long and fifteen inches wide; give from four inches to a foot of bevel, leaving one edge of board seven feet long, and the other but six feet two inches.

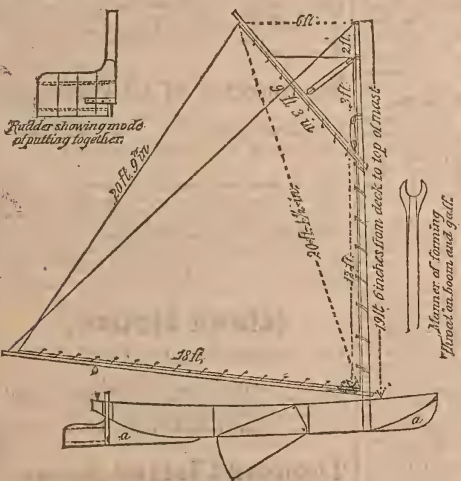
seven feet long and fifteen inches wide; give from four inches to a foot of bevel, leaving one edge of board seven feet long, and the other but six feet two inches. Cut the ends of side boards to the curve of a radius of about eight feet, leaving the extreme ends of side boards four inches wide from curve to top edge, or gunwale.

For the "centre-board," procure two boards equal in width to the depth of middle of boat, and five feet in length and one and a quarter inches thick; to one edge of each nail or rivet a piece of oak two by two inches, and of the same length as boards.

Three inches from bottom edge of centre-board at the front end, and the same distance from the end itself, mark a point or centre, from which strike the curve of a three-inch radius from bottom to the end, and cut the corner off to the line described, using the same point as a centre.

At each end of boat is to be fitted the "deadwood," marked (a) in diagram; its purpose is to steady the boat, to give more immersed section, and also to stiffen and to provide a place to hang the rudder to; make these of one and one-half inch stuff, which must be cut to fit the curves of boat, and stem firmly in place through the bottom boards.

inch oak, except for the rudder post. The piece for rudder post should be six inches wide, two and a half inches thick, and of sufficient length to allow for the mortise for filler above deck. Shape as shown in diagram. The top part of rudder post, as far as it passes through the stern of boat, should be made round, two and a half inches in diameter; below this it is flattened down until it conforms to the rest of the rudder. The rudder should be two feet in length, and fastened together by half-inch iron rods running through the edges of the boards, as shown by the dotted lines in the diagram. The holes for the rods must necessarily be true, and it is best to mark the boards from each edge, and one-half way through from each side; by this means the holes will meet one another squarely. At the proper place on rudder post we now cut out a notch, and fit on an iron with a half inch pintle, to fit eye on stern deadwood. The rudder-head requires two iron bands, one above and one below the mortise in which the tiller is placed, or a band can be placed around the whole rudder-head long enough to include the mortise, which is cut through it; this last being the best. Cut a hole through the bottom boards at stern; large enough to allow the rudder-head to pass easily to place, and around the rudder post where it passes through the boat, fit a wooden box to the bottom, making the box large enough so that the rudder can be taken out easily; nail the box securely to the bottom and make water-tight. When fitting on the deck cut the board in front of rudder-head so that the rudder will incline enough to be easily removed, and finish by having an iron or brass plate on the deck with a hole cut through of size just sufficient to allow the rudder head to fit nicely; fasten plate to deck with screws. Lay the deck with narrow boards; two inches in width and three-quarters thick; the deck can be arranged to the builder's fancy, but on the sides should be at least a foot wide and at the bow must extend back far enough to include the step for mast. The deck beams may be made of inch boards three inches wide; make the "rise" of deck from a half to three-fourths of an inch per foot of width, placing the beams one foot apart, those at the mast to be double strength and braced with "knees" at each end. Put in a wide deck plank of oak for the mast to pass through, using inch or inch and a quarter stuff with its edges beveled down to correspond in thickness to the other deck planks; fasten it firmly its whole length, and to the two heavy deck beams bolt it with screw-bolts; the deck boards are put on lengthwise the boat, around the sides of "cockpit." Nail an inch board, allowing it to extend downward as far as the bottom of deck beams, and rise above four or five inches. At each end of cockpit nail similar boards crosswise the boat, fitting the ends neatly to the side pieces, when the "combing" is completed. A floor may now be fitted in the boat, or not, as is desired. Arrange seats as wanted. Cut the hole for the mast in the centre of the boat's width, three and three-fourths feet from the bow of boat. Make a "step" for bottom of mast of two inch plank, which must be fastened very firmly on the bottom of the boat, directly beneath the hole in deck. At the stern, back of rudder-head should be fastened, crosswise the boat, an iron rod with its ends bent down about three inches, and so formed that it can be firmly fastened to the deck; this is called the "travel." A pair of rowlocks may now be inserted in blocks fastened outside the "combing"—bars nine or ten feet long should be used. Fasten a ring to bow of boat for painter. A small rope should be fastened to the eye on top of centre-board, of a length sufficient to allow the top of centre-board to descend to the bottom of trunk, or a little lower; on the end of the rope is placed a wooden button or ball, large enough to prevent it passing through the opening or "well" in trunk. When the centre-board is raised, it is kept up by passing an iron pin through a hole in back end of centre board, the ends of the pin resting on top of the trunk. This pin has an eye at one end in which a small chain or cord is fastened, the other end being attached to the side of trunk to prevent the loss of pin when not in use.



The diagram shows shape and dimensions for a suitable sail, which should be made of heavy drilling or light duck, the seams being formed by lapping the edges of the breadths one on the other an inch, sewing both edges in that position. The stitch used is similar to that which ladies call a "hem," only coarser stitches, one-quarter of an inch apart or more. The different "breadths" are also to be "bighted" or seamed once through their middle lengthwise, forming the seam in the same manner as at the edges, that is, doubling it over on itself an inch. For sewing use sail twine, though good hard laid wrapping twine will answer as well. The seams should run parallel with the "leach," or outside edge of sail. Lay the cloth on a floor and shape carefully as shown on diagram, turning a hem all around the edges two or three inches wide. At each corner sew on an extra thickness of cloth, extending across the corners six or eight inches, and also sew on an extra thickness at the points where the reef-string will come on "leach" and mast. In the corners of the sail place large brass grommets or "eyelets," and also in the places where the extra thickness of cloth was sewed on. On the edges which lie along the boom and gaff place small brass grommets one foot apart; along the mast edge of sail they may be fifteen inches apart. Sew on the edges of sail a half inch hemp rope, which should be drawn around over the ground for some distance before using, in order to take out the extra twist; when the rope is perfectly dry, fasten the edge

of the sail to the rope without stretching the sail any, at distances of a yard or so apart; this will serve as a guide when sewing and prevent "drawing in" the sail. On the "leach," &c., the edge running from the boom to point of gaff, it is best to take out a little more twist from the rope by untwisting it slightly. Some prefer to sew on the rope down a foot or so from the gaff, and then pass it through an eyelet hole to the inside of hem and run it down to point of boom; thence pass it through large grommet, and finally bring the end along the boom inward, far enough to reach handily, at which place it is fastened to a "cleat" on side of boom. By this method, if the "leach" of sail at any time is too long or too short, it can be remedied by altering the length of rope. The mast and booms are best made of spruce, though pine will answer well. The boom is three and a fourth inches diameter in its middle, and tapers to about two inches or so at the ends. The gaff-boom must be two and a fourth inches at middle, tapering to one and a half and one and three-fourths at the ends. The "throat" or end of boom at mast is shaped as shown in diagram. The gaff is shaped in the same manner. On the upper side of boom, and on the under side of gaff, nail on edge strips of wood three-fourths by three eighths inches extending from one end to the other, through which holes are bored and cords run, and through the grommet of sail to fasten it to the booms. The corners of sail are more securely fastened to booms by passing a stout cord around boom at outside end, and nailing a small block back of cord to prevent its slipping. The corner at throat is fastened by boring a hole down through the end of the boom and fastening the cord through it. Wooden or iron rings are used on mast, but wooden ones are preferable, and they must be large enough to run freely. Blocks are fastened on mast and booms as shown in diagram, the upper block being a double one, while the rest are single. The blocks on mast may be fastened to "eyes" in iron rings around mast at the places shown. The blocks may be either of wood or metal and of a size to take a half-inch rope—the block on the boom a single one, and that on the travel double. The "traveller block" is fastened to a loose ring on the "travel." Mast four and a half inches diameter at deck, one and three-fourths at the top, and of the length shown in diagram. The ropes for hoisting sail are passed through blocks or eyes screwed in deck, one on each side of the mast, and then carried to the cockpit, where the ends are fastened to "cleats." Make two rows of eyelet holes in sail parallel with boom, and about three feet from it and from one another, in which fasten reef-strings, so that one-half the length of string is on each side of the sail. Make the tiller of tough oak, or it may be made of iron.

This boat will require an anchor of twenty-five pounds. The "centre of effort" of the sail, and the "centre of longitudinal section" (terms which will be explained in a future article) lie nearly in the same vertical plane when the centre-board is up, and but one person in the boat. When the centre-board is down, the boat will have considerable weather helm. This is the only safe and agreeable way of adjusting the sails to any boat. Use 250 or 300 pounds of ballast. For small boats the best ballast is clean gravel, placed in strong canvas bags, six or seven inches in diameter, and about fifteen inches long. Distribute the ballast, whether passengers or gravel bags, in such a manner that when "beating" to windward, it will require the tiller to be held over to the "windward" side (or side turned toward the wind), at a small angle with the vessel's "course." When trimmed right, the vessel will head up in the wind when the hand is removed from the tiller. Above all things, if you value your safety, never sail any boat that has a "lee helm," that is, one in which the bow of the boat will swing around with the wind when the rudder is left to its own guidance. With such a boat there will be considerable difficulty in going about, or changing to another course, and if caught in a squall, the probabilities are that you will upset. If the boat has a lee helm, shift ballast forward until there is a change to "weather helm." If there is too much weather helm, shift the ballast toward the stern of boat until the tiller will be required to be put over to windward, only a small amount to keep the boat on her course. The directions given for a scow will also answer for a sailing skiff, the only difference being the bow. Directions already given for rowing skiff will sufficiently explain this point, otherwise proceed as directed for scow. On the diagram of sail a rope is represented running from point of boom to top of mast; this is called the "topping lift," and its purpose is to help support the boom; it can be omitted, but is of considerable convenience, and we would recommend its use. Either a sailing scow or skiff will make a very good boat on inland waters where there are no large waves, but in sailing on rough waters or ocean billows they are dangerous, and we would advise no one to use them in such places.

**NEW YORK YACHT CLUB.**—The annual cruise of this club was begun yesterday. The programme contemplates a run from Glen Cove to New London, thence to Greenport, New Bedford, Oak Bluffs and thence to Newport for the club regatta. Notable features of the cruise this year are the presence of the steam yachts, a series of handicap races from port to port, and the presentation, to take place at Shelter Island or Newport, of an elegant silver punch bowl to Mr. J. R. Dickerson, of the schooner yacht *Madeleine*. This is to be a testimonial of regard from the club members to Mr. Dickerson for the service rendered last year when the *Madeleine* contended as champion schooner of the club against the schooner *Countess of Dufferin*, of the Royal Canadian Yacht Club, for the possession of the American cup.

**NEWBURGH BAY YACHT CLUB REGATTA.**—*Newburgh, Aug. 1.*—The fourth annual regatta of this club was sailed Wednesday afternoon, Aug. 1st. The weather was most propitious; the breeze was a stiff northeaster; the docks, river banks and excursion steamers were crowded with throngs of many thousands of spectators; the arrangements for a successful regatta were most admirable, and admirably carried out, and the regatta a success. The prizes were: For first-class, \$75 first, a marine glass second; for second-class, \$50 first, a barometer second; for third-class, \$50 first, set of colors second; for fourth-class, a silver plate; for catamarans, a pennant; and a special prize of \$150 for the boat making the best corrected time. The course was from an imaginary line drawn from the judges' boat, off the long dock at Newburgh, crossing it from the north; thence to and around mark boat No. 1, off the long dock at Fishkill; thence to and around mark boat No. 2, two and one-half miles south, turning from east to west; thence to and around stakeboat No. 3, two and one-half miles north of starting point, turning from west to east; thence to and around stakeboat No. 4, anchored opposite the foundry at Fishkill, turning from east to west; thence to and around stakeboat at the starting point, turning from north to south; going over the course twice. The result was as follows:

Name.	FIRST CLASS.		Corrected time.
	Elapsed time.	H. M. S.	
Dare Devil.....	3 06 10	3 08 45	
W. R. Brown.....	2 53 15	2 55 45	
Journeyman.....	3 21 32	3 21 32	
SECOND CLASS.			
Bertha.....	Disabled.		
Let Her Be.....	3 19 50	3 19 25	
Pluck and Luck.....	3 06 11	3 06 33 1/2	
Clara S.....	3 39 27	3 38 43	
Frank.....	3 53 20	3 48 00	
H. H. Holmes.....	3 51 30	3 50 00	
FOURTH CLASS.			
Flyaway.....	3 17 27	3 17 27	
Com.....	3 30 20	3 30 20	
Fidget.....	3 27 47	3 18 47	
Anna.....	3 39 45	3 30 15	
Thomas Palou.....	3 27 05	3 18 25	
Victoria.....	3 17 01	3 06 46	
Carrie.....	Not timed.		

CATAMARANS.			
Taran-tala.....	2 29 00	2 29 00	
Amaryliss.....	3 10 30	2 55 20	
THIRD CLASS.			
Addie Taylor.....	3 47 12	3 47 12	
Sophia Emma.....	3 42 12	3 42 02	
Zig Zag.....	4 03 12	3 55 32	
Kate B.....	Not timed.		
Peter O'Brien.....	3 57 15	3 53 1	
Restless.....	Not timed.		
Emily.....	Not timed.		
Lawrence.....	Not timed.		
Corah D.....	Not timed.		
Sylvia.....	Not timed.		
Faith.....	3 52 25	3 52 25	
Petrel.....	Not timed.		

The special prize was won by the *Victoria* as follows:

Yacht.	Elapsed time.	Corrected time.
	H. M. S.	H. M. S.
<i>Victoria</i> .....	3 17 01	3 17 01
W. R. Brown.....	2 55 15	2 55 15
Pluck and Luck.....	3 06 11	3 00 43 1/2
Sophia Emma.....	3 42 12	3 20 57

**ROCHESTER YACHT CLUB.**—*Charlotte, N. Y., Aug. 1.*—The second trial of yachts took place, as above, under circum-stances in happy contrast with those which made a former trial comparatively unsuccessful. The following is the list of entries, with the result:

Name.	Owner.	Time.
		H. M. S.
Belle.....	Clifton.....	1 52 38
Seth Green.....	Sage.....	1 59 41
D. W. Powers.....	Nolan.....	2 3 51
Ira.....	Jones.....	2 8 21
Ripple.....	Whitard.....	2 15 30
Newport.....	Walker.....	2 15 47
Amnetts.....	Dodd.....	2 19 41
Genl.....	Woodworth.....	Not timed.
Storm.....	Van Voorhis.....	Drawn.
Rochester.....	Green.....	Drawn.

**NEWPORT YACHT CLUB.**—*Newport, R. I., Aug. 1.*—Handicap race of sloop yachts for prize presented by Com. Lorillard:

Boat.	Start.	Retra.
	H. M. S.	H. M. S.
Schener.....	11 55 00	3 35 04
Undine.....	11 15 00	3 46 00
Evelyn.....	11 17 00	3 56 00

**CATAMARANS ON THE LAKE.**—Hartman Talbot, of the Port Huron *Commercial*, is "doing" the Great Lakes with a catamaran, cruising leisurely along the coast from Port Huron or Chicago.

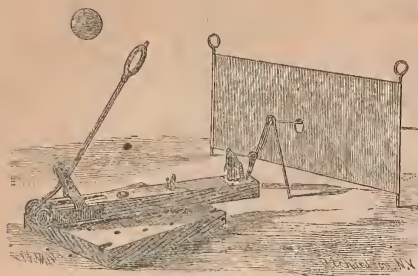
—Wallace Ross, who recently defeated Phisted, of New York, and Smith, of Halifax, has challenged Morris, of Pittsburg, Courtney, of Union Springs, N. Y., and Hanlon, of Toronto, to a race of three, four or five miles, \$500 or \$75,000 a side. In case either of the challenged parties refuse to accept, the challenge is open to any American.

—The amateur sailing championship of the Thames has again been carried off by T. C. Edwards, Mass. The distance was three miles, and the time 24m. 43s.

—The Long Branch Rowing Association regatta comes off at Pleasure Bay on or about Aug. 15th.

**Tiffany & Co., Silversmiths, Jewelers, and Importers,** have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. **TIFFANY & CO.** are also the agents in America for Messrs. **PATEK, PHILIPPE & Co.,** of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones General Jewelry, Bronzes and Artistic Pottery is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York.

HUBER & MERWIN'S CHAMPION BALL TRAP.



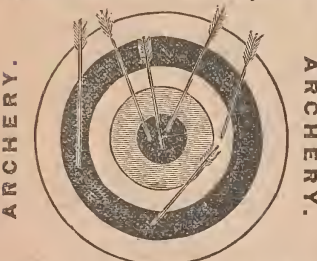
We call the attention of the fraternity to the above trap, claiming to be the most perfect...

FOR SALE BY BARTON & CO., Sole Agents, 337 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP for durability and perfection of its operation, superior to them all...

New Advertisements.

J. F. MARSTERS, Manufacturer of Superior ARCHERY.



Ladies' die, howwood bows, beautifully finished, plush-han... 125 Nassau St., New York, and 53 Court St., Brooklyn.

SAFETY REIN HOLDER. The handiest thing out. It saves time; prevents accidents; looks well; is not in the way; is easily adjusted, and fits any teacher. Sent, postpaid on receipt of one dollar.

Folding Pocket Mosquito Bar. A most ingenious device for campers, tourists and travelers. Can be used at home or abroad, and will last a lifetime.

PERFEZIONE. Strengthens, enlarges and develops any part of the body; Nervous Debility Pills, St. Invigorating Pills, &c., all postpaid.

Bond's Improved Section Boat. There can be no greater portability without serious defects. Spontimen will find these boats superior to all others.

LEESBURG ACADEMY. An English classical and mathematical school for boys. Leesburg, Loudoun Co., Va. Principal, Thos. Williamson.

Wanted.

A Partner Wanted in Florida.

A situation as full partner in an establishment of forwarding Florida oranges, Market all secured; the only work is Receiving, Counting, Boxing and Shipping.

WANTED.—A 16-foot six strip bamboo rod. For Sale.—A 10-gauge, 20-inch double barrel breech-loading Wellingtoun gun, with all the fixings.

For Sale.

New Steam Yacht.

For River or Lake use. Eighteen feet long, 4 ft. 3 inch beam. Speed, eight miles an hour. Price \$35, net cash.

FOR SALE.—One long-range Peabody-Martini, new, complete and warranted; one mid-range Peabody-Martini, new, complete and warranted; one long-range Whitney, complete, with tools, etc., warranted; one tuzzle-loading Swiss target rifle, warranted; one Remington off-hand, 40-70, wind-gauge sights, etc.; one Baker muzzle-loader, a beauty; one Manton & Son muzzle-loader in case, warranted.

BLOOMING-GROVE PARK ASSOCIATION. One share in above association for sale at a very low price. The best Game Preserves in America.

FOR SALE.—A Remington mid-range rifle, pistol grip, Venetian and wind-gauge sights; nearly new. Price \$50, with reloading tools and 100 shells.

Live Moose For Sale.

Four live moose. Address Proprietors of Forest and Stream, this office.

A VERY DESIRABLE ESTATE, either for a market gardening or general sporting purposes, at the south, will be leased to responsible parties for a long or short term of years.

The Kennel.

DOGS.

DOCTOR HENRY GARDNER, No. 146 West Third street, New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases.

FOR SALE.—My Irish Gordon dog "Shoy," by "Plunket," out of a "Nell;" color, all red two years old; well yard broken, but has never been shot over much. Price, \$50, or will exchange for a steady, well broken pointer, four or five years old, that can show a good character.

FOR SALE.—A well bred pointer pup, six months old, and a Gordon setter bitch, one year old, broken to retrieve, charge, etc., \$15 each.

FOR SALE.—Six setter whelps out of my bitch Jess, by Lakin's Ned, price \$15. For particulars address, P. DUNHAM, Leeds, Mass.

FOR SALE.—Two clumber spaniel whelps, lemon and white, nicely bred; three months old. Bred from pure imported stock. Address 76 Gold street, New York.

FOR SALE.—Fox bounds, No. 1 stock; very fast and strong, secured some one year old and some pups. L. W. WOODEN, Rochester, N. Y.

The Kennel. SPRATT'S PATENT LONDON MEAT FIBRINE DOC CAKES. Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



F. O. de LUZE, 13 South Willam Street, N. Y., Sole Agent. For sale in cases of 112 lbs. Special terms to dealers.

JAS. MEYER, JR.'S Gironidin Disinfectant FOR KENNELS.

This is the most effective and cheapest disinfectant and deodorizer for the kennel. It is endorsed by the medical profession, the business community, public institutions, railroad companies, car lines, hotels, undertakers, etc.

KENNEL FOR BREEDING, REARING, BOARDING, exercising and training SETTERS AND POINTERS.

Refer to FOREST and STREAM, and others. Pure-bred Pointers and Setters now taken to yard break, preparatory to field training on Game in the South West winter. Address, E. S. WANMAKER, 564-17

Fleas! Fleas! Worms! Worms! STEADMAN'S FLEA POWDER FOR DOGS. A Bane to Fleas—A Boon to Dogs.

This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use.

ARECA NUT FOR WORMS IN DOGS. A CERTAIN REMEDY. Put up in boxes containing a dozen powders, with full directions. Price 50 cents per box by mail.

W. HOLBERTON, 102 NASSAU STREET, oct 12

Champion ELCHO—Imported. BORN MAY 1, 1874. Celebrated for perfection of head, color and coat, and winner of more prizes, and sire of more winners than any Irish dog of his age in America.

EDINA KENNEL. JESSE SHERWOOD, Proprietor, Edina, Knox County, N. C. Breeder and Importer of Sporting Dogs: Pointers, setters, spaniels, fox and beagle hounds.

TRAIN your own dogs in the most artistic manner. Send for circular to M. VON COLIN, Delaware City, Del. July 31

FOR SALE.—Kennel of Imported and Native Irish Setters.—Imported red Irish setter stud dog by "Thique, out of Flora, winner of prizes at shows in Ireland and in this country; will soon be in heat; price \$150.

FOR SALE.—A fine lot of Scotch, Skye, Dandy, Dismout, and Black-and-tan Terriers, Sporting Dogs, Maltese Cats, Ferrets, &c. Medicines for all diseases at L. N. MEYER, 45 Great Jones street, N. Y. sept 12-17

FOR SALE.—Red Irish setter pups, No. 1 stock; bred by Khan, by Plunket, etc. For particulars and prices, address VICTOR KING, Lima, Allen Co., Ohio. July 26

FOR SALE.—Red Irish pups, four months old, from imported pure stock; also several other native setters, perfectly broken. Apply to REX, box 168 Scranton, Pa. Aug 21

FOR SALE.—One pair red and white setter pups, eight weeks old (three-quarters Irish) with pedigree for nearly fifty years. Price \$15 each. Address E. J. ROBBINS, Wethersfield, Conn. Aug 11

The Kennel. BALLARD'S FLEA KILLER! FOR THE DESTRUCTION OF FLEAS On Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.

Price 50 Cents per Package. Will be sent postage paid on receipt of price. Proprietors, LAZELL, MARSH & GARDINER, July 17 10 GOLD STREET, NEW YORK.

Hotels and Resorts for Sportsmen.

SAYVILLE HOUSE, SAYVILLE, L. I. MAJ. W. E. UNDERHILL, Proprietor.

A few illustrious walk from the depot and from the beach. Bathing, boating, fishing, yachting, Comedication, etc. with South Beach and Fire Island. A beautiful lake, Fort Nokoma, and many other pleasant drives in the neighborhood.

BAYFIELD.—The Great Health and Pleasure Resort of the Northwest. Beautiful Scenery, Pure Atmosphere, Delightful Climate, Fishing, Boating, Sailing and Shooting. The Island House at Bayfield, Wisconsin, situated on Lake Superior, surrounded by the Apostle Islands, twenty-two in number, offers to persons seeking health and pleasure advantages rarely found. The climate is pure, cool and bracing, and a sure cure for hay fever. It invigorates the whole system, creates appetite and induces sleep. The water is pronounced by scientists the purest in the world. July 12

HALESY HOUSE, Atlanticville, L. I. A Summer Resort, and for Sportsmen all the year, will open July 1st. New house accommodates fifty guests. Rooms of various sizes and exposures. Perfectly healthy. A fine oak grove of two acres at rear of house.

FOR SALE OR TO LET, Swiss Valley Pleasure Grounds, with trout pond for pisciculture, garden and outdoor sport, at Pelhamville, Westchester Co.; 43 minutes from Grand Central Depot. Call on JAMES MEYER, JR., 65 Broad street, N. Y. Aug 11

COUNTRY BOARD and sporting; good rooms, shade, pure woods, mountain air, lake fishing, trout in stream, etc. For particulars, and other shooting Sept. 1. Address BRADLEY, Edred, Sullivan Co., New York. Aug 24

SEA-SIDE HOME BOARDING HOUSE, by C. F. HOPKINSS, at South Beach, Bramford, Conn. Sea view, comfortable house and beautiful view of the sea. Three stages to the shore. Haven daily after June 15. Previous arrangements necessary. House strictly temperate. Address as above by mail.

Bay Shooting of all Varieties. SHINNECOCK BAY THE BEST SHOOTING GROUND IN THE VICINITY OF NEW YORK.

Wm. N. Lane respectfully informs his many friends that the early parties added to the Springville House or Sportsman's Retreat, he is prepared to entertain and take care of his guests in a special manner. Moderate prices and satisfactory attention guaranteed. The young bay birds are now coming in, and every thing is fair for an excellent season. Address Wm. N. LANE, Good Ground Station, L. I. Live wild geese stools for a price and fall shooting. July 23

Island House, BELLOWS FALLS, VERMONT. Broad piazzas, large airy halls, charming walks and drives, delightful scenery, pure mountain air and cool breezes. Send for circular. July 4 3m CHARLES TOWNS, PROPRIETOR.

Thousand Island House, Situated on the RIVER ST. LAWRENCE, ALEXANDRIA BAY, JEFFERSON CO., N. Y., and in the immediate vicinity of the far-famed Thousand Islands, will be opened for the reception of guests June 1st, 1877. This house was erected in '73, and contains all the modern improvements.

O. G. Staples, Manager, Alexandria Bay, N. Y.

KINSEY'S ASHLEY HOUSE, Barnegat Inlet, N. J. The only house near the celebrated Blue Fish, Sheepshead, Black Fish, and Sea Bass grounds, Address, for engaging yachts, circulars, or notice of reliable good fishing, KINSEY, Ashley House, Barnegat.

Alexs-New York, via N. J. S. R. to Waretown; and from Philadelphia, Tuckerton R. R. to Barnegat. Inquire at depot for Kinsey's ferryman, may 11-17

Hotels and Resorts for Sportsmen.

Metropolitan Hotel, WASHINGTON, D. C.
Carrollton Hotel, BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y. and ST. MICHAEL'S, N. Y.

THE METROPOLITAN
is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and re-furnished throughout. The cuisine is perfect; the service regular, and charges moderate.
R. B. COLEMAN & CO.

CROSSMOR HOUSE.
ALEXANDRIA RAY, JEFFERSON CO., N. Y.
C. CROSSMOR & SON, Proprietors
THIS HOUSE, RECENTLY REBUILT and elegantly furnished, is now open for visitors. It is located in one of the most delightful places in the Thousand Islands region, commanding an extensive view of the St. Lawrence and the Islands, and offers every facility for the comfort and enjoyment of guests.

Curlew Bay Club House
is open to the public as a Sportsman's Home, where can be found plenty of shooting and fishing. Facilities for gunning for bay-brids cannot be excelled on the coast of New Jersey.

SABA CLIFF HOUSE, SEA CLIFF, L. I., OPENS for the season 1877, on MAY 1st, at rates to suit the times. Special arrangements for families.
E. RICKARDS.

Sportsmen's Routes.

NORTHERN RAILWAY OF CANADA AND COLLINGWOOD LINE.
Only first-class route to the beautiful inland lakes of CANADA AND LAKE SUPERIOR.

The Fine UPPER CABIN STEAMERS of this line leave Collingwood EVERY TUESDAY and FRIDAY, at 6 P. M., on arrival of steamboat express leaving Toronto at 1 P. M.

Sportsman's Route.
CANADA, SOUTHERN RAILWAY.
Direct Connections at Buffalo with New York Central and Erie Railway.

THROUGH CARS—FAST TIME
AIR LINE—STEEL RAILS,
FRANK E. SNOW,
G. P. & T. Agent, Detroit.

TROUT FISHING!
The Wisconsin Central Railroad
THROUGH TO LAKE SUPERIOR.

EXCURSION TICKETS from Chicago to Ashland and return for \$2.00, sold at 62 Clark street, or the C. M. and St. Paul, Madison Street Depot, Chicago, or also at low rates from Milwaukee. Dogs, guns and camp equipage taken free.

Sportsmen's Routes.

Central Railroad OF NEW JERSEY.

NEW YORK AND LONG BRANCH DIVISION.

REDUCED RATES FOR THE SEASON.

Express Train Time, between New York and Long Branch, 1 hour and 20 minutes.

THROUGH PULLMAN PARLOR CARS.

Commencing June 25, 1877, trains leave New York, foot of Liberty street, for Red Bank, Long Branch, Ocean Grove, Sea Girt, etc., at 5:00, 7:45, 9:00, 11:45 A. M., 3:00 (Express), 4:30, 4:45, 6:00 P. M.

LONG ISLAND RAILROAD.

Ferryboats leave James' Slip, N. Y., thirty minutes, and from Thirty-fourth street, E. R., fifteen minutes previous to departure of trains.

Trains leave Long Island City as follows:
For Greenport, Sag Harbor, and intermediate stations, at 8:44, 9:03 A. M., 3:30, 4:06 P. M. SUNDAYS at 4:10 A. M.

For Patchogue, etc., at 9:03 A. M., 2:00, 4:45, 5:23 P. M. SUNDAYS, 9:15 A. M.
For Babylon, etc., at 7:30, 8:44, 9:03, 11:30 A. M., 2:00, 4:24, 4:45, 5:23, 6:03 P. M. SUNDAYS, 9:15 A. M., 6:35 P. M.

For Port Jefferson, etc., at 10:00 A. M., 3:30, 5:05 P. M. SUNDAYS, 9:30 A. M.
For Northport, etc., 10:00 A. M., 3:30, 4:24, 5:05, 6:42 P. M. SUNDAYS, 9:30 A. M., 6:30 P. M.

For Locust Valley, Glen Cove, etc., 8:44, 11:30 A. M., 2:00, 3:30, 4:24, 5:05, 6:42 P. M. SUNDAYS, 9:30 A. M., 6:30 P. M.
For Mineola, etc., at 7:30, 8:44, 11:30 A. M., 2:00, 4:24, 5:23, 6:03, 7:00 P. M. SUNDAYS, 9:15 A. M., 6:35 P. M.

Montclair & Greenwood Lake

Railway Time Table,
Depots foot of Cortlandt and Desbrosses Sts.

COMMENCING MAY 21, 1877.
Trains leave New York, 9:30 A. M., 4:30 P. M. Connect with boat, and arrive at Ahington 11:00 A. M., 7:05 P. M. Leave Ahington, 7 A. M., 4:05 P. M. Arrive, New York, 9:40 A. M., 7 P. M.

People's Line Steamers

BETWEEN NEW YORK AND ALBANY.

The most comfortable and cheapest route for SPORTSMEN OR PLEASURE SEEKERS Going to or returning from
The Thousand Islands of the St. Lawrence, The Great Northern or Adirondack Wilderness, Lake George, Lake Champlain, The White and Adirondack Mountains, Saratoga, Trenton, Niagara, Saratoga and Richfield Springs, Cooperstown (on Otsego Lake), or any of the favorite summer routes North or West. The commodious steamers, DIEW and ST. JOHN, make close connection at Albany with express trains for all the above-named places.

Sportsmen's Routes.

A BUFFALO HUNT

ON THE Atchison, Topeka and Santa Fe Railway.
THE NEW ROUTE FOR KANSAS & COLORADO
SPECIAL ATTENTION TO SPORTSMEN.

For maps, tickets, and gen'l information, apply to L. H. NUTTING, Gen'l Eastern Agent, 233 Broadway, New York.

Old Dominion Line.

The steamers of this Line reach some of the finest waterfowl and upland shooting sections in the country. Connections direct for Chincoteague, Cobb's Island, and points on the Peninsula. Old Point, James' River, Currituck, Florida, and the mountainous country of Virginia, Tennessee, etc. Norfolk steamers sail Tuesday, Thursday and Saturday; Delaware steamers, daily, except Saturdays, at 8 P. M. Full information given at office, 107 Greenwich St., New York.

Fall River Line, BOSTON AND THE EAST.

MAMMOTH PALACE STEAMERS BRISTOL AND PROVIDENCE.

The best and most direct route to the Fishing and Hunting resorts of Cape Cod, and Rangeley, and Moosehead Lakes, etc. Tickets for sale at all principal hotels and ticket offices. Steamers leave New York Daily at 5 P. M. (Sundays, July 1 to Sept. 2, inclusive) from 25 North River, foot of Murray street.

BORDEN & LOVELL, Agents. GEO. L. CONNOR, Gen'l Pass'g Agent. 37-39

FOR FLORIDA

FOR THROUGH TICKETS TO FERNANDINA, JACKSONVILLE, ST. AUGUSTINE, SANFORD, ENTERPRISE, and intermediate landings on ST. JOHN'S RIVER and interior points in FLORIDA, by steamship to SAVANNAH, and thence by railroad or steamboat, apply to WM. L. JAMES, General Agent.

Philadelphia and Southern Mail S. S. Co., 416 South Delaware Avenue, S. B. La.

"The Bermudas."

Now a FAVORITE AND DELIGHTFUL WINTER RESORT is reached in seventy hours from New York, and being surrounded by the warm waters of the Gulf Stream enjoys an equable temperature of about 70 deg. The elegant British Steamships "Bermuda," and "Camina," 1,000 tons, fitted expressly for the passenger travel, are dispatched from New York for Bermuda fortnightly, making connection at Bermuda with steamers for St. Thomas and West Indies. For full information apply to A. E. OUTERBRIDGE, Agent, 29 Broadway, N. Y. Dec 21 17.

THE "FISHING LINE."

Brook Trout, Grayling and Black Bass Fisheries OF NORTHERN MICHIGAN, VIA Grand Rapids and Indiana Railroad.

(Macquinn, Grand Rapids & Cincinnati Short Line.) Sportsmen who have cast a fly or trotted a spoon in the waters of the Grand Traverse Region will come again without solicitation. All other lovers of the Rod are invited to try these waters, where the fish named above, as also Muscalonge, Pike and Pickerel, abound. In no other straits east of the Rocky Mountains is the famous American Grayling found in such numbers. Brook Trout season opens May 1st. Grayling season opens June 1st. The sportsman can readily send trophies of his skill to his friends or "Club" at home, as ice for packing fish can be had in many points. Take your family with you. The scenery of the North Woods and lakes is very beautiful. The air is pure, dry, and bracing. The climate peculiarly beneficial to those suffering with hay fever and asthma. The Hotel Accommodations, while plain, are, as a rule, good, far surpassing the average in countries new enough to afford the finest of fishing. On and after June 1st Round Trip Excursion Tickets sold to Point in Grand Traverse Region, and attractive train facilities offered to tourists and sportsmen; also, on and after July 1st, Mackinaw and Lake Superior Excursion Tickets.

Dogs, Guns, and Fishing Tackle Carried Free at owner's risk. Camp cars for Fishing Parties and Families at low rates. It is our aim to make sportsmen feel "at home" on this route. For Tourists' Guide, containing full information as to Hotels, Boats, Guides, &c., and accurate maps of the Fishing Grounds, send to FOREST AND STREAM office, or address: H. H. PAGE, G. P. & T. A., Grand Rapids, Mich. A. HOPPE, Eastern Passenger Agent, 116 Market Street, Philadelphia.

Sportsmen's Routes.

TO SPORTSMEN:

THE PENNSYLVANIA R.R. CO. Respectfully invite attention to the Superior Facilities

afforded by their lines for reaching most of the TRIPPING PARKS and RACE COURSES in the Middle States, these lines being CONTINUOUS FROM ALL IMPORTANT POINTS, avoid the difficulties and dangers of reshipment, while the excursions which run over the smooth-steel tracks enable STOCK TO BE TRANSPORTED without failure or injury. The times of

Pennsylvania Railroad Company

also reach the best localities for GUNNING AND FISHING in Pennsylvania and New Jersey. EXCURSION TICKETS are sold at the offices of the Company in all the principal cities to KANE, RENOVA, BEDFORD, CHERSON, RALSTON, MINNEQUA, and other well-known centers for

Trout Fishing, Wing Shooting, and Still Hunting.

Also, to TUCKERTON, BEACH HAVEN, CAPE MAY, SQUAN, and points on the NEW JERSEY COAST renowned for SALT WATER SPORT AFTER FIN AND FEATHER.

L. P. FARMER, Gen'l Pass. Agent, FRANK THOMSON, Gen'l Manager, 1617-18

NEW HAVEN, HARTFORD, SPRINGFIELD, N. White Mountains, Mount Mansfield, Lakes Memphremagog and Willoughby, Montreal and Quebec. Shortest, quickest and most pleasant route. Steamers C. H. NORTHAM and CONTINENTAL leave Pier 35, East River, daily (Sundays excepted) at 8 P. M. (2nd St., E. R., 8 1/2 P. M.) and 11 P. M., connecting with trains on wharf at NEW HAVEN for above and intermediate places.

Passengers taking 11 P. M. steamer (except Saturdays and Sundays) will reach White Mountain, Lakes, etc., next afternoon. Tickets sold and baggage checked at No. 94 Broadway, New York, and No. 4 Court Street, Brooklyn. Full particulars at offices on Pier.

RICHARD H. K., Sup't.

NEW JERSEY AND NEW YORK RAILWAY.

Leave New York via Erie Ferry, foot of Chambers street.

For Hackensack—7:45, 8:45 A. M., 1:00, 4:15, 5:15 and 6:30 P. M. For Nanuet—7:45, 8:45 A. M., 1:00, 4:15 and 5:15 P. M.

For Spring Valley—8:45 A. M., 1:00, 4:15, and 5:15 P. M. For Haverstraw and Stony Point—8:45 A. M., 1:00 and 4:15 P. M.

For New York City—7:45 A. M., 1:00, 4:15 and 5:15 P. M. Sundays—8:45 A. M. and 6:45 P. M., stopping at all stations.

These trains leave Twenty-third street as follows: 7:45, 8:45 A. M., 1:24, 3:45, 4:45, and 6:15 P. M. Sundays, 8:45 A. M. and 6:45 P. M. A Theatre Train on Saturday night only at 11:45 P. M., from Twenty-third street, and 12 Mid. from Chambers street, which goes through to Stony Point, stopping at all stations.

Excursion Tickets can be procured at Erie Ticket Offices, foot of Chambers street. All trains leave the Erie Depot in Jersey City. Commutation Tickets, at low rates, at the office of the Company, Pavonia Ferry, Jersey City. See Pocket Time Tables.

Until further notice, the Trains of this Road will not wait for the Twenty-third street boats. L. D. BRUNN, Supt.

SPRINGTON LINE, FOR BOSTON AND ALL POINTS EAST.

REDUCED FARE: Elegant Steamers SPRINGTON and NARRAGANSETT leave Pier 33 North River, foot Jay St., at 5:0 P. M. NOT A TRIP MISSED IN SEVEN YEARS.

Tickets for sale at all principal ticket offices. State rooms secured at offices of New-York Express Company, and at 383 Broadway, New York, and 333 Washington St., Brooklyn.

PROVIDENCE LINE.

Freight only, steamers leave Pier 37, North River, foot Park Place, at 4:30 P. M. Freight via either line taken at lowest rate. Freight via either L. W. FOLKINS, G. P. Agent, D. S. BARCOCK, Pres. C. J. IVES, General Manager.

St. Paul and St. Louis Short Line.

Burlington, C. Rapids & N'rb'n Railway. QUICKEST, CHEAPEST AND BEST!

TWO PASSENGER TRAINS EACH WAY DAILY, crossing and connecting with all East and West Lines in Iowa, running through some of the finest hunting grounds in the Northwest for Geese, Ducks, Pinnated anduffed Grouse and Quail. Sportsmen and their dogs taken good care of. Reduced rates on parties of ten or more upon application to General Ticket Office, Cedar Rapids, I. O. J. IVES, E. F. WINSLOW, Gen. Passenger Agent.

CHICAGO & ALTON RAILROAD,

THE ONLY DIRECT RAILROAD from Chicago to St. Louis, and Chicago to Kansas City, WITHOUT CHANGE OF CARS.

FIRST-CLASS ACCOMMODATIONS IN EVERYTHING.

SPORTSMEN will find splendid shooting on the line of this road, prairie chicken, geese, ducks, brant, quail, etc. Connects direct at Kansas City with the Kansas Pacific Railroad for the great British and Antelope range of Kansas and Colorado.

Liberal arrangements for transport of Dogs for Sportsmen. JAMES CHARLTON, General Passenger Agent, Chicago, Ill.

Gunpowder.

ORIENTAL POWDER MILLS

MANUFACTURERS OF ALL KINDS OF GUNPOWDER

Office-13 BROAD STREET, BOSTON. BRANDS-DIAMOND GRAIN, FALCON DUCKING, WILD FOWL SHOOTING, WESTERN SPORTING, (Oriental Rifle.)

The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES. J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. C. J. Chapin, Agent, 213 Locust St., St. Louis, Mo.

Lafin & Rand Powder Co.

No. 26 MURRAY ST., N. Y., Sole Proprietors and Manufacturers of Orange Lightning Powder.

Orange Ducking Powder, For water-fowl, strong and clean. No. 1 to 5 in metal kegs, 6 1/2 lbs. each, and canisters of 1 and 5 lbs. each.

Orange Rifle Powder. The best for rifles and all ordinary purposes. Sizes, FG, FFG and FFFG, the last being the finest.

HAZARD POWDER CO. MANUFACTURERS OF GUNPOWDER. Hazard's "Electric Powder," Nos. 1 (fine) to 6 (coarse). Unsurpassed in point of strength and cleanliness.

Hazard's "American Sporting," Nos. 1 (fine) to 6 (coarse). In 1 lb. canisters and 6 1/2 lb. kegs. A fine grain, quick and clean, for upland prairie shooting.

Hazard's "Duck Shooting," Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration.

Hazard's "Kentucky Rifle," FFFG, FFG, and "Sea Shooting" FG, in kegs of 25, 12 1/2 and 6 1/2 lbs. and cans of 5 lbs. FFFG is also packed in 1 and 1/2 lb. canisters.

Superior Mining and Blasting Powder, GOVERNMENT CANNON & MUSKET POWDER; ALSO, SPECIAL GRADES FOR EXPLOSIVE, BLASTING, AND REQUIRING GRAIN OR PROOF, MANUFACTURED TO ORDER.

THE NEW DITTMAR POWDER. THE CHAMPION POWDER OF THE WORLD. For all off-hand shooting at short and long ranges. Unsurpassed for cleanliness. Pleasant to shoot on account of little recoil and report.

THE CHAMPION POWDER OF THE WORLD. For all off-hand shooting at short and long ranges. Unsurpassed for cleanliness. Pleasant to shoot on account of little recoil and report.

THE CHAMPION POWDER OF THE WORLD. For all off-hand shooting at short and long ranges. Unsurpassed for cleanliness. Pleasant to shoot on account of little recoil and report.

THE CHAMPION POWDER OF THE WORLD. For all off-hand shooting at short and long ranges. Unsurpassed for cleanliness. Pleasant to shoot on account of little recoil and report.

THE CHAMPION POWDER OF THE WORLD. For all off-hand shooting at short and long ranges. Unsurpassed for cleanliness. Pleasant to shoot on account of little recoil and report.

Gunpowder.

Warren Powder Mills,

MANUFACTURERS OF BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS-Eureka, Continental, "Border Rifle," Snap-Shot, and Warren Sporting Cannon and Musket, U. S. Standard.

Fishing Tackle.

Conroy, Bissett & Malleson

65 Fulton Street, New York. Factory-Foot Sixth St. Street, Brooklyn, E. D.



Six Strip Hexagonal Split BAMBOO RODS.

ENAMEL ALL PRESERVED ON THE OUTSIDE. QUALITY GUARANTEED.

The annexed list will show the reductions we have made. We quote:

Table with 2 columns: Formerly, Now. Fly Rods, 6 Strips, 2 Tips, \$40 \$25. Fly Rods, 6 Strip, 3 tips, and duplicate joint, \$55 \$35. Black Bass Rods, 6 Strip, 2 Tips, \$50 \$30. Black Bass Rods, 6 Strip, 3 Tips and Duplicate Joint, \$55 \$40. Salmon rods, 6 Strip, 2 Tips, \$50 \$30.

These Rods are, in all their parts, WHOLLY MADE BY HAND. Positively no machinery is used in any part of their construction.

PHILADELPHIA Fishing Tackle House.



A. B. SHIPLEY & SON, 503 COMMERCIAL STREET, PHILA.

Manufacturers of FINE FISHING TACKLE. A Specialty of Green Heart Wood for Amateur Rod Makers.

RODS, REELS, ETC., REPAIRED. Shipley's Self-Hooking Elastic Snells, "catch every fish that bites." Send for sample.

The perfect revolving NEW TROLLING SPOON, "the best in the world. It not to be found at your fishing tackle stores, these spoons will be forwarded by the manufacturer by mail.

B. GREENWOOD, Manufacturer of Aquarium Greenhouse and Aquarium Content, and dealer in Fish Food, Gold Fish, Water Plants, Fish Globes, and aquaria stock of all descriptions.

J. B. CROOK & CO., FISHING TACKLE.

Greenheart Rods for Trout and Bass Fishing, \$15 to \$20. Ash and Lancelwood Rods for Trout and Bass Fishing, \$7 to \$12.

H. L. LEONARD, BANGOR, MAINE.

Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty. Great reduction in prices. Trout Rods, full mounted, \$30, formerly \$50; or other rods in proportion.

Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof ferrule," and varnished to resist imperfections in material and workmanship.

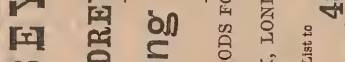
Fishing Tackle.

ABBEY & IMBRIE,

SUCCESSORS TO ANDREW CLARK & CO. Fishing Tackle of Every Description.

FINE GOODS FOR SPORTSMEN A SPECIALTY. NEW YORK, LONDON, REDDITCH, HAVANA AND RIO JANEIRO.

SKINNER'S New Fluted Bait.



The best bait used for Bass and Pickerel Fishing Bass size, 75 cents; Pickerel size, \$1 each, by mail post-paid, on receipt of price.

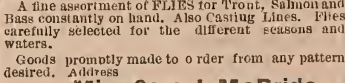
FISH & SIMPSON, 132 NASSAU ST., NEW YORK.

McBride Flies.

MEDAL AND DIPLOMA FROM INTERNATIONAL EXHIBITION, PA., 1876, DECREE FOR "EXCEEDINGLY NEAT WORK WITH SOLIDITY OF CONSTRUCTION."

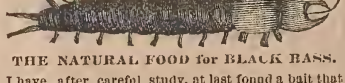
A fine assortment of FLIES for Trout, Salmon and Bass constantly on hand. Also Casting Lines. Flies carefully selected for the different seasons and waters.

DINGEE SCRIBNER, Manufacturer of Salmon and Trout Rods, Salmon and Trout Flies, Casting Lines, Lancing Nets, Gaffs, etc.



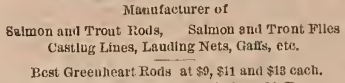
J. F. MARSTERS, Manufacturer, 125 Nassau Street, New York.

WHITE MFPG COMPANY, BRIDGEPORT, Conn.



Jack and Dash Patent Combination Lamp. For NIGHT HUNTING Deer and other animals, SPEARING FISH, indispensable on any Boating, Yachting or Camping Trip.

FLORENCE OIL STOVE.



Made of Galvanized Cast Iron. Will last a Life Time. Especially for Sportmen and Picnic Parties, complete outfit consisting of Stove, Oven, Kettle and Steamer combined, Coffee Pot, Two Tin Plates and Oven Pans, Two Knives, One Spoon, and One Camp Chest for \$12.

NEW GAME LAWS OF THE STATE OF NEW YORK.

Just published in neat pamphlet form, the Game Laws of the State of New York, as amended by the last session of the Legislature. Price, single copies, 15 cents; four copies, 50 cents.

BINDERS.

Get your fine books bound. Art Journal bound uniform to London publishers style. Picturesque America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done in two or three days if required.

CAMP LOUNGE CO., TROY, N. Y.

CAMP LOUNGE CO., TROY, N. Y. Value Lounges, \$5 to \$8. Trade discounts. Free Circulars. Pillow and Mosquito Bar Canopy with every Lounges and Cot. Value Cot, Price \$10. Spreads 6 ft. x 2 ft. Jointed Tent Poles, 6 ft. poles, \$3 per set; 9 ft. poles, \$4 per set. Branch Offices-Corland St., N. Y. City; 15 Fanueil Hall Square, Boston; 15 Calle Tejadillo, Havana; 415 Sansone St., San Francisco, Agents wanted. J12 eow.

Publications.

SPORTSMAN'S GAZETTEER AND GENERAL GUIDE.

WITH MAPS AND ILLUSTRATIONS. 900 PAGES. Price, \$3.

BY CHARLES HALLOCK, EDITOR OF "FOREST AND STREAM;" AUTHOR OF THE "FISHING TOURIST," "CAMP LIFE IN FLORIDA," ETC.

NEW YORK: "FOREST AND STREAM" PUBLISHING COMPANY.

The book is a complete manual for sportsmen: It gives every sportsman the method for capturing every known game animal, bird and fish in North America. It designates the proper charges for guns for each kind of game, the various kinds of decoys and blinds, and baits and tackle for the fish.

It gives over 4,000 localities where game and fish may be found, specifies the game found in each locality, the hotel accommodation, and the best route to get there. The preparation of this Directory was in itself a work of great magnitude.

It gives the scientific name and specific characteristics of each species it describes, with the habitat and breeding season of each—a most valuable contribution to science.

It describes 291 varieties of edible fish alone, that may be taken with the hook; 80 varieties of ducks, 50 varieties of snipe or waders, and the different methods of shooting each.

Its instructions for capturing large game are very minute, and the chapters on woodcraft, outfitting and camping have been prepared by "El Cazador" of Los Angeles, California, to be simply complete.

Every kind of dog used for sport is designated, and his points for bench judgments fully given. The chapters relating to selection, breeding, rearing, breaking, care and diseases, comprise a seventh part of the volume. There are 71 prescriptions and recipes given under the revision of the best modern canine therapeutists.

It is in itself the most concise, accurate, instructive, sensible and comprehensive work ever written upon the dog and his diseases. Any physician can administer the prescriptions with perfect confidence in their safety and efficacy.

It contains very useful recipes and remedies for wounds, bites, poisons, illness, and emergencies of all kinds; for cleaning, repairing, and preserving every implement used for sports; for selection and use of every kind of bait, employed by sportsmen; a reference list of several hundred books in request by sportsmen, and a directory where to buy outfitting goods.

It instructs in taxidermy, and tells how to preserve and mount specimens of animals, birds and fish.

SPORTSMEN'S GOODS.

BOUDREN'S PATENT COMBINATION JACK, DASH AND FISHING LAMP.

For NIGHT HUNTING Deer and other animals, SPEARING FISH, indispensable on any Boating, Yachting or Camping Trip.

Not affected by Wind, Rain or Jolting. Burns kerosene safely without chimney. Throws a powerful light 200 feet ahead. As a DASH LAMP FOR CARRIAGES it has no equal. Fits on any shaped dash or on any vehicle.

PRICE. Jack and Dash... \$6 00 Fishing Lamp... \$8 00 C. O. D., with privilege of examination.

THE FLORENCE OIL STOVE.

Made of Galvanized Cast Iron. Will last a Life Time. Especially for Sportmen and Picnic Parties, complete outfit consisting of Stove, Oven, Kettle and Steamer combined, Coffee Pot, Two Tin Plates and Oven Pans, Two Knives, One Spoon, and One Camp Chest for \$12.

FLORENCE MACHINE COMPANY, BRIDGEPORT, MASS.

Agents Wanted, J12 e4t

POCKET BEDSTEAD.

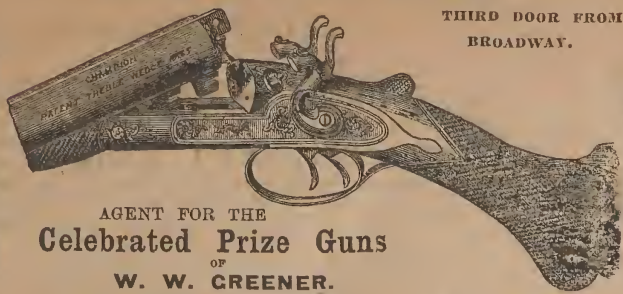
This Bed, for Camp, Lawn, House and Office. Weight but 2 1/2 lbs.; is one of the greatest and most economical luxuries ever invented. Price \$2.50.

CAMP LOUNGE CO., TROY, N. Y.

Value Lounges, \$5 to \$8. Trade discounts. Free Circulars. Pillow and Mosquito Bar Canopy with every Lounges and Cot. Value Cot, Price \$10. Spreads 6 ft. x 2 ft. Jointed Tent Poles, 6 ft. poles, \$3 per set; 9 ft. poles, \$4 per set. Branch Offices-Corland St., N. Y. City; 15 Fanueil Hall Square, Boston; 15 Calle Tejadillo, Havana; 415 Sansone St., San Francisco, Agents wanted. J12 eow.

**HENRY C. SQUIRES,**  
No. 1 CORTLANDT STREET,

THIRD DOOR FROM  
BROADWAY.



AGENT FOR THE  
**Celebrated Prize Guns**  
OF  
**W. W. GREENER.**

Winner of London Gun Print, 1875,  
bearing 402 grains.

Winner of the Massive Silver Cup in  
1876, presented by Mr. Furd, of  
London, bearing all best London makers.

These guns have been winners in every trial during the last three years, competing with all the first-class makers in England. The shooting of every gun is guaranteed, and prices as low as consistent with good work. Guns built to exact order of sportsmen. I keep the best selected stock of guns by all the other makers to be found in this city, including Scott, Webley, Remington, Parker and Fox, Marshall's new Class Ball Trap, \$5; three traps, \$12. English chilled shot, all sizes and in any quantities. Agent for Dittmar powder. Complete outfit for hunting and camping. Best Breach-Loader ever offered in the United States for \$35. Wholesale Agent for Holabird's Shooting Suits, and Camp Lounge Company.

**STODDARD'S**  
**CARTRIDGE LOADING IMPLEMENT,**

COMBINING SEVEN DIFFERENT TOOLS,  
Cap Expeller, Recapper, Loader and Tube, Creaser, Cutter  
Crimper and Shell Extractor.

**NO. 10 NOW READY.**

Performs all the operations possible in the manipulation of Paper or Metal  
Cartridges for Fire-Loads.

Length, 4 1/2 inches. Nickel Plated. Weight 10 ounces.

All the operations are perfect, and suitable for any shell.

AWARDED BOTH MEDAL AND DIPLOMA AT CENTENNIAL  
EXHIBITION.

**PRICE, \$6.**

Circulars sent on application. Send postal order or check to

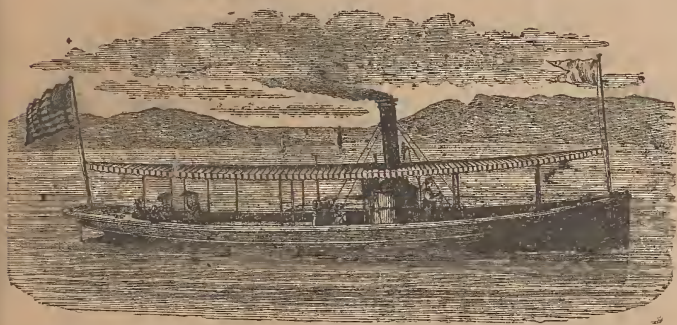
**C. J. STODDARD & CO.,**

Lock-Box 192, Washington, D. C.  
LIBERAL DISCOUNT TO THE TRADE.

**CENTENNIAL EXPOSITION MEDAL**

AWARDED FOR

**STEAM LAUNCHES.**



**N. Y. SAFETY STEAM POWER CO**

30 Cortlandt Street, New York.

GIVE SPECIAL ATTENTION TO THE BUILDING OF  
**LAUNCHES AND THEIR MACHINERY,**

and will furnish them complete in every particular, fitted either as Swift Racers, Fast Pleasure Boats, Party  
Boats, Fishing Boats, Ship's Tenders, or Ferry Boats. Or will supply the MACHINERY, complete. Also  
models, drawings and moulds to parties preferring to build their own boats.

**SEND FOR DESCRIPTIVE CIRCULAR.**

**A VICTORIOUS INVENTION**  
**The Eagle Claw.**



An ingenious device for the purpose of catching all kinds of  
Animals, Fish and Game.  
The easy method of setting the Eagle Claw, combined with  
the simplicity of removing the victim, are among its peculiar  
advantages.

It is immaterial how to place it when set. It may be buried  
flat in the ground, suspended from the limb of a tree, or, when occasion  
requires, covered with grass, leaves or other light  
material without in any way impairing its certain operation.  
It is adapted for bait of any description, and, when set, no  
Animal, Fish or Bird that touches the bait can possibly escape.  
It does not mangle or injure its victims in the slightest degree,  
nor need they be handled to free them from the trap.

**PRICE LIST:**

- No. 1—For fishing and all kinds of small game and animals,  
sent by mail..... 35 cents.
- No. 2—For catching Mink, Muskrats, Raccoons, large Game,  
Fish, &c..... 75 cents.
- No. 3, or Hooky Mount Game, for catching Bears, Wolves,  
Panthers, &c. Can be easily set by a boy, and will stand a  
strain of several hundred pounds. Weight, 10 to 15 lbs. \$10.  
All goods sent, charges paid, to any address on receipt of price.  
Address

**Chas. L. Coate,**

330 Fulton St., Brooklyn, N. Y.  
P. O. Box 214.

**AGENTS WANTED.**



**Chas. F. ORVIS,**

MANUFACTURER OF

**FINE FISHING TACKLE,**

**MANCHESTER, VERMONT.**  
**VERY STRONG AND DURABLE ARTIFICIAL FLIES.**  
Fully Equal to any Made.

For Trout, \$1.50 per dozen. Triple Hook Flies, \$3.50 per dozen. For Bass, \$2.50 to \$4.50 per dozen.  
Any variety to order for same.  
Refer to Dr. J. K. ROBBEY, Keeseville, N. Y.; Com. L. J. Beardster, Little Falls, N. Y.  
SEND FOR DESCRIPTIVE CATALOGUE. MENTION "FOREST AND STREAM."

**THE UNITED STATES CARTRIDGE COMPANY,**  
**LOWELL, MASS.**

Manufacturers of the

**CENTRAL FIRE, SOLID HEAD,**  
**BRASS SHELL, RE-LOADING CARTRIDGE,**

Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

**WALLACE & SONS, Agents, N. Y. City.**

**Drugs.**

**H. T. Helmbold's**

Compound Fluid Extract

**BUCHU.**

Owing to various counterfeiting of my  
original receipt and preparations, I have  
changed my labels and wrappers, which in  
future will be printed in

**CARMINE INK.**

The Public are cautioned to be sure and  
get the genuine, prepared by the

**H. T. HELMBOLD**

Manufacturing Company,

Broadway & 17th St.,

NEW YORK.

**BABBITT'S TOILET SOAP.**



Untraced for the toilet and face bath. No artificial and deceptive odors to cover the composition and delectable ingredients. After ten years of scientific experiment the manufacturer of B. T. Babbitt's Best Soap has perfected and now offers to the public  
**The Finest Toilet Soap in the World.**  
Only the purest vegetable oils used in its manufacture.  
Worth ten times its cost to every mother and family in Christendom. Sample box containing 3 cakes of 6 ozs. each, sent free on any address on receipt of 15 cents.  
Address B. T. Babbitt, New York City.  
For Sale by all Druggists.

**H. WALDSTEIN**  
**OPTICIAN,**

545 Broadway, New York,

Has received the highest award at the Centennial Exposition for his fine Glasses, especially Opera and Field Glasses. His display at 545 Broadway of fine

**TELESCOPES, FIELD, MARINE and OPERA GLASSES, MICROSCOPES, SPECTACLES and EYE GLASSES, ARTIFICIAL HUMAN EYES, Etc.,**  
Is really wonderful. Illustrated catalogue mailed on receipt of postage of four cents.

ESTABLISHED 30.

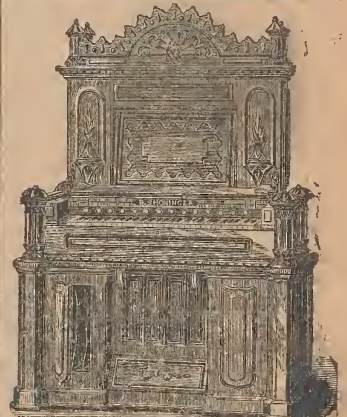
**Amusements, Etc.**

**GILMORE'S CONCERT GARDEN.**  
OPEN EVERY NIGHT IN THE WEEK WITH  
GILMORE'S GREAT MILITARY BAND.  
SPECIAL PROGRAMMES SUNDAY EVENINGS.  
50 cents admission. Boxes seating four, \$3.

**Zoological Garden.**  
FAIRMOUNT PARK, PHILADELPHIA.  
Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 19

**THE GREAT NEW YORK AQUARIUM,** Broadway and 35th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones, Wonderful Horned Cow Fishes and Ascidians, Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments.  
Coney Island Aquarium now open for the summer.

Highest Honors  
**CENTENNIAL WORLD'S AIR, 1876:**  
**SHONINGER ORGANS.**



PRONOUNCED UNANIMOUSLY AS THE  
**Best Instruments.**

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:

"The B. SHONINGER ORGAN CO.'S exhibit as the best Instruments at a price rendering them possible to a large class of purchasers, having a combination of Beauty and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, less liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either shrink, swell or split." THE ONLY ORGANS AWARDED THIS HONOR.

This Medal and Award was granted after the most severe competition of the best makers, before one of the most competent juries ever assembled.  
New styles and prices just issued, which are in accordance with our rule, the BEST ORGANS for the least money.

We are prepared to appoint a few new Agents. Illustrated Catalogue mailed, postpaid, upon application to  
**B. SHONINGER ORGAN CO.,**  
97 to 123 Chestnut Street,  
NEW HAVEN, CONN.

Guns, Rifles, Etc.

**SPORTSMEN**

Will find a select assortment of

Guns, Rifles, Revolvers, Ammunition, And all goods appertaining thereto.

Special Attention is invited to Our New SMITH'S PATENT REVOLVERS, In four sizes of 22, 32, 38 and 41-100 cal.

This new and elegant Arm combines simplicity durability, a perfect interchange of all its parts. The most critical inspection in process of manufacture, and with its patent improvements, make it the Most Desirable Revolver in the Market.

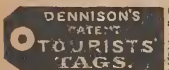
A COMPLETE ASSORTMENT OF MAYNARD RIFLES SHOT GUNS ETC. Send for Circular.

**FOWLER & FULTON,**  
NO. 300 BROADWAY, N. Y.  
M. FOWLER. HENRY FULTON.



**Dennison's Targets**  
From 25 to 1000 Yd. Range.  
**TARGET PASTERS AND Score Cards.**  
SOLD BY Dealers in Sporting Goods.

On receipt of TEN CENTS a 100-YARD TARGET will be sent by mail, with circular and sam. pls, by DENNISON & CO., 198 Broadway, N. Y.



Convenient and Handy for attaching to Fishing Rods, Gun Cases, and all sorts of Sportsmen's Baggage. Buy of your nearest Stationer or Newsdealer, or send 10 cts. for package by mail to DENNISON & CO., 198 Broadway, N.Y.

Sportsmen's Goods.

**W. H. HOLABIRD,**  
Manufacturer of

**Specialties in Clothing FOR SPORTSMEN, Valparaiso, Ind.**

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent, by mail, post-paid, \$8.

Holabird's New Game Bag; weighs 12 ounces. The most convenient and coolest garment ever offered to Sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2.

Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for best shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style. Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods. 1712 ft

**SOLA HAT.**



This Hat is made of waterproof duck, dead grass color, and in the same style as East India Hats; is the coolest and best yet offered to sportsmen.

Absolute Guarantee against Sunstroke. For sale by all dealers in sportsmen's goods, or sent by mail, securely packed, postage prepaid, price \$3. Address,

**THOMSON & SON,**  
301 Broadway, New York.

P. O. box 1,016. Send stamp for illustrated catalogue of sportsmen's goods. Ag2 ft

**Seydel & Co's Pocket Hammock.**  
No. 1, weight only 1 1/2 lbs.; bears 1,800 lbs.; price \$4. A most luxurious Couch, Seat, Swing, Etc.



Circulars may be had by addressing MCCOY & CO., 84r and 186 Duane Street, N. Y.

**HAMMOCKS**

FOR LAWNS AND EXCURSIONS

Tents, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seetees, etc. Send for Illustrated Circular.

G. WEBSTER PECK, Manufacturers' Agents, 110 Chambers St., N. Y.

1715

**W. & C. SCOTT & SONS.**



**TRIPLEX.**

marked the PREMIER QUALITY

[Extract from FOREST AND STREAM, New York, December 26, 1876, Contributed by one of the Judges of Awards of Guns at the Centennial.]

"This action (The Triplex Lever Grip) combines in the highest degree strength and simplicity, and must rapidly secure the favor of all who test its merits.

**COMPENSATING LUMP.** Strongly recommended. It is invaluable, and should be ordered on every gun. Costs about \$10 extra. Choke-bored, medium or full. Our guns to be had of the principal dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.

First Prize Medal and Diploma awarded at the Centennial Exhibition, for excellence of workmanship and material in their Premier Quality and medium grades. Their New Patent-Triplex Lever Grip Action and Compensating Lump. The attention of sportsmen is requested to the above new action. Its superior strength and solidity impart greatly improved shooting powers. Hard hitting being the desideratum required, is obtained by this powerful gun. Prices of the New Triplex Lever Grip, \$175, \$235 to \$400. Marked the Triplex 10-bored extra. Our highest grade is as usual



**Paper and Metallic Shells FOR Breech-Loading Shot Guns,**

Manufactured by the **UNION METALLIC CARTRIDGE CO.,** BRIDGEPORT, CONN.

THE STURTEVANT SHELLS are the easiest reloaded. Do not have to unscrew the head nor use an awl to remove the exploded caps. THE PATENT MOVABLE ANVILS, made of steel wire, will not bend or break.

THE BERDAN PATENT SHELLS, new model, with Hobbs' patent waterproof primers, never miss fire, and are highly prized by all that have used them.

PAPER SHELLS.—By repeated experiments and great outlay for improved materials, and machinery made expressly for the purpose, we can now warrant our BROWN PAPER SHELLS equal to any imported. They are sure fire, and will not burst in the gun.

Inquire of any of the dealers in sporting materials for the U. M. C. Co.'s Shells. Not sold at retail by the manufacturers.



**"St. Louis Conical Base Paper Shell."**



Having made important improvements in our Shell, we can safely recommend them as equal, if not superior, in quality to any Paper Shell manufactured in this country or in Europe.

Among the advantages claimed for these Shells, are: A saving of 25 per cent. in the use of powder; also the great decrease in recoil. The sizes made are No. 10—2 1/2, 2 1/2, and 3 inches; No. 12—2 3/4, 2 3/4, and 2 3/4 inches. Longer

Shells will be made at extra cost. They are not mailable. Sample, 100, sent by express on receipt of \$1.15 for No. 12; \$1.20 for No. 10. Factory and office, No. 2, 999 De Kalb street, St. Louis, Mo.

**St. Louis Patent Shell Manufacturing Company.**

**Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.**

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

SPORTSMEN'S CLUBS AND AMATEURS.

THE PATENT ROUGH BALL—The only Ball that will break sure when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 13, 1877.

**Geo. E. Hart & Co.,**

NEWARK, N. J.

TRADE SUPPLIED.

Cotton Duck, every width & weight, cut to any length, Oiled do. manufactured by steam power. Saturated, not enameled.

Slings for disabled Horses, thoroughly harnessed, \$10 each.

Lock Pouches, Messenger Bags,

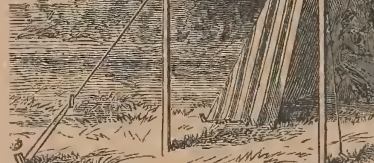
Nose Bags at wholesale,

anything and

everything that can be made

of canvas.

represented above.



**Palmetto Tents.** 10 feet square, \$20 each. 7 1/2 " " 7 "

Arrangement of Tent Catalogues.

No. 1. Artist's & Camping.

2. Military.

3. Lawn and Garden.

4. Camp Meeting & Chapel.

5. Circus & Show.

6. Base Ball, Cricket, &c.

7. Sundries.

**John Boyle,**  
199, 201, 203  
Fulton St.  
N. Y.

**Boyle's U. S. Tent and**  
Mall Bag Manuf'y,  
FULTON ST., NEW YORK.

**VANITY FAIR FOR MEERSCHAUM AND CIGARETTES.**  
DOES NOT BITE THE TONGUE.

Our Cigarettes are as fine as can be produced. Only the best French Cigarette paper is used, which is free from mineral and other injurious substances.

**TRY L'AMERIQUE,**  
THE BEST CIGARETTES, AND JUST THE THING FOR  
**SUMMER SMOKING.**

Mixture of Perique and Vanity Fair. Best French Cigarette Paper only used. Sample by mail, Fifteen cents. Ask your dealer for them.

WM. S. KIMBALL & CO., Rochester, New York.

Guns, Rifles, Etc.

**Sportsman's Depot.**

(ESTABLISHED 1836.)

First premium at World's Fair at New York and Centennial Exhibition.



**JOHN KRIDER,**

N. E. Cor. Second and Walnut Sts., Phila.

GUNS, RIFLES, PISTOLS.

Fishing Tackle, Rods, Reels, Lines, Hooks, Files, Leaders, Snoods, Artificial Bait, Fly Books, Etc., Etc.

Salmon, Bass and Trout Files Made to Order.

ALSO

"Kriders" Celebrated Center Enamel Split and Glued Bamboo Rods.

Birds' Eggs and Birds' Skins in Great Varieties—Taxidermy in all its branches.

Spratt's Patent Dog Biscuits mart-ly

Repairing of all kinds.

Founded July 4, 1808.



Thos. W. Sparks,

**Shot & Bar Lead MANUFACTURER.**

Office 121 Walnut Street, Philadelphia.



THREE BARRELED

**Breech-Loading Guns.**

(TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

Represented by W. Holberton, 102 Nassau street, New York.

SEND FOR CIRCULAR.

**W. H. BAKER,**

Sept. '90:6m Lisle, Broome Co., N. Y.

**Attention, Sportsmen!**



**The Boss Loader of the World.**  
Each Loader adapted to both 10 and 12-gauge metal or paper shells of any length, each shell being accurately charged and washed complete in one operation, at the rate of 100 in fifteen to twenty minutes. Amount of charge readily adjusted. Is substantial, safe and reliable. Price \$3. Discount to trade. All orders for sample loaders must contain remittance. Manufactured only by

**CAMP & WISE,**

Stoughton, Dane County, Wis.

1715

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Sells for Dollars a Year,  
Five Cents a Copy.

NEW YORK, THURSDAY, AUGUST 16, 1877.

Volume 9.—No. 2.  
[No. 111 Fulton St., N. Y.]

### A TROUTING REMINISCENCE.

Selected.

YOU'RE right; I'll go find it at once;  
It needs more repairs, I'll be bound,  
For Jack, the old good-hearted duncie,  
Left hardly a part of it sound.  
Besides, it's the time of the year  
When tackle should all be brought out,  
For April will shortly be here,  
And then for the woods and the trout.

This rod is the one Jack abused,  
And this is the basket and line;  
I wish I had flatly refused  
To lend him a fishhook of mine!  
"A nice-looking rig," do you say?  
I think so myself; that split pole  
Cost fifty-five dollars last May—  
Who now would give ten for the whole?

He'd fished some at Long Bridge for smelt,  
Had been to a clam-bake or so,  
And with such experience felt  
He knew all a fisher should know.  
Please hand me that fly-book, Yes, Jack  
Had plenty of pluck from the start;  
And yet, when the party turned back,  
He hadn't commenced in the art.

You ought to have seen his first trout—  
Scarce three inches long, so they said—  
Which taxed all his strength to pull out;  
And hang up, right over his head,  
Some twenty feet skyward; the tree  
Avenging his wanton attack  
By keeping, as safe as could be,  
This first trouting trophy for Jack!

Please aid me a moment. A splice  
Is not just the thing in a tip;  
But one can't afford to be nice  
While there's such a scarceness of scrip.  
Turn easy at first, till the thread  
Has strengthened the fracture a bit;  
That's splendid—now wind right ahead  
Until we have covered the split.

I think that will do. Jack allowed  
The feat he accomplished was fine,  
And stumped every man in the crowd  
To do such a trick with a line;  
But no one was anxious to try.  
My choice taper line by the feat  
Was ruined forever, well nigh.  
Why, really, this looks rather neat.

I told him such snatching at trout  
Would never do, if he should hook  
A big one—and there is no doubt  
They grew pretty large in this brook.  
But he must be patient, and drown  
His fish ere he brought him to land.  
He said that he "savvied"—the clown—  
And looked very knowing and bland.

I found him soon after, down stream,  
Astride of a log, with his eyes  
On something of in'trest supreme,  
As though they were bent on a prize.  
He said he was "drowning a whale,  
Which ought to be dead as can be—  
He hasn't the game of a snail—  
I think I will hoist him and see."

He "hoisted," and found that his hook  
Was caught in some water-logged chunks  
Of wood, and the fellow's blank look  
Had no more of mirth than a monk's;  
He rallied, however, quite gay,  
Declaring it only one joke  
Of many he'd played methat day,  
And laughed till I thought he would choke.

His look being "wretched with bait,"  
And thinking to "throw them a fly,"  
He cudgeled his ponderous pate  
To strike a position whereby  
A cast could be made in a pool  
Which looked very trouty and nice,  
And chose for the venture—the fool—  
A bowlder as smooth as new ice.

He threw, and the bowlder threw Jack  
Right head-over-heels in the hole;  
And O, what an ominous crack!  
Came forth from my elegant pole!  
As mad as I was I contrived  
To ask him as soon as he rose,  
If really he meant, when he dived,  
Another smart "joke" to expose

This joint is the one Jack supplied  
In place of the splintered-up length;  
And though without doubt he has tried,  
It lacks both in lightness and strength.  
But naught he could do would make good  
The loss which my temper sustained  
That day; but to be understood  
That part must be further explained:

He stuck to the fish-rod throughout,  
And when he emerged with a flop,  
Great Isaac! a three-pounder trout  
Was spinning his reel like a top!  
Of course, after fool's luck like that  
He landed the whopper all right,  
Nor cared for the loss of his hat,  
Which floated away out of sight.

And then he just let himself out,  
And bragged to his heart's full content  
Of how he had caught the big trout  
By science! What need of comment?

One thing has been fixed in my mind,  
When I go a-fishing for trout,  
Green fishermen all say behind,  
Or travel a different route! \* M. A. KINGSFORD.

For Forest and Stream and Rod and Gun.

### Sporting Incidents in Connemara.

WOODCOCK occasionally lie very close; I don't think, however, the following instance of obstinate refusal on the part of a long-bill to fly out and get peppered can easily be matched. Woodcock shooting in close cover is, I think, the cream of shot-gun sporting, requiring the acme of readiness and accuracy on the part of the sportsman, and affording the quarry the utmost possible allowance of law. Very different is the case, however, when the woodcock is started from low brushwood, and obliged to seek refuge by flying off in the open. Like an owl in the daylight, he hardly seems to know where he is going, and falls the easiest of possible victims even to the least practiced gunner.

I was quartered once in the wilds of Connemara during the winter season. Salmon fishing, the king of western sports, did not commence until the spring, and grouse and partridge shooting were over.

There was little to be done but to pot snipe among the bogs, and I generally spent an hour or two at that amusement every day. I did not care about having my dogs come to the conclusion that a jack snipe was of more importance than a pack of grouse or a covey of partridges, and for that reason used generally to leave them at home.

Sometimes I took a "gosssoon" with me to carry the birds—often being, at that time, of a musing and solitude-loving temperament, I used to go entirely unattended. On one of these occasions, after slaughtering as many snipe as I chose to carry in my bag, I remembered that I had heard Tim Lyden—my head boatman and sporting fastotum in chief—assert that morning that, while out the night before trapping badgers, he had seen the woodcock landing from the sea on the side of Carrowbeg Hill.

I was, of course, aware that the woodcock did thus land in the night-time on the hillside, and afterward scatter themselves through the more thickly wooded inland country, but I did not think that, even on a moonlight night, the sharpest watcher would be likely to see them in the act.

Partly to test the truth of Lyden's story, partly because I had nothing better to do, I climbed up the sides of Carrowbeg and began beating the low and widely separated bushes which flecked the hillside about the place where the cock were said to have alighted. Sure enough, from the very first I kicked, out flew a woodcock. He took me by surprise, and had sailed down the hillside, out of reach of the light shot I had in my gun, before I could draw a bead on him. I distinctly saw him, however, alight in a small isolated bit of bush, and I determined to go and tumble him over, chiefly to see what condition he was in after his fight from the Norway coast. Down I went, keeping my eye on the bit of bush, and soon got close up to it. I gave a sharp "hist" to start the bird, followed by a "hi! cock! cock!" and other ejaculations intended to have a startling effect. All in vain. At last I went right up to the bush, and began kicking at it and walking around it.

It was little more than eight or nine feet across in any direction, and did not rise anywhere to a height of four feet. All the noise I could make with my voice, seconded by the crashing of heavy shooting boots against the lower branches, failed to have any effect, and, after trying to peer into the dark recesses of the brush-wood, I came to the conclusion that, in spite of the evidence of my eyesight, Mr. Woodcock must have flown away and taken refuge elsewhere. I threw myself down to rest after my climb and to munch some devilled biscuits I had with me. Having washed said biscuits down with a mouthful of sherry from a pocket flask, I was about to enjoy what they call in the West "a shaugh of the pipe," when—the instant I struck the Vesuvian—out bounced my friend, the woodcock, almost from under my nose, taking care this time to fly to a safe distance before he again secreted himself. Whether it was that the explosion of the match was too much for his nerves, or that he had observed that, with commendable caution, I had removed the cartridges from my gun before laying it down, I cannot say; at all events, he "went" quite easily, after having, a few minutes before, resisted every effort I could think of to make him start. What his feelings were while I was dancing like a red Indian around his hiding place on one foot and kicking at him with the other, remains locked in his own bosom; I only know that a more obstinate refusal "to get up and git" I never encountered.

Tim Lyden, whose name I have already mentioned, was one of the most useful retainers that a sporting man could possibly wish for. He knew almost everything connected with the habits of the various descriptions of game, and of vermin, too, with which "the houseless wilds of Connemara" abounded. He also had much deep lore and practical skill in the "gentle art," and was as untiring and faithful as a dog. He was always ready on emergencies, and had various little useful accomplishments, which were always coming in opportunely. For instance, when I wished to start in my canoe—a somewhat rickety conveyance, without a keel, made of tared canvas stretched over a light wooden framework in the regular Arran Island fashion—I would take off my watch and leave it behind, as I had nothing to do but start Tim with the correct hour, after which he could carry in his head the lapse of time, and tell me at any moment during the day what the time was with unfailing accuracy.

Once he and I started alone with a small canoe to investigate a part of the coast which even Tim himself had never visited. We had had the canoe transported about forty miles overland on a country cart, and were entering on a region where even the scattered huts of the hardy fishermen or kelp burners were not to be seen. The wild and desolate beauty of these bays will forever haunt me. Whether dancing in glittering wavelets under a bright morning sun, or glowing in sheeny silver on a calm afternoon; or, better still, while weird and shadow-flecked beneath a stormy moon—they were always lovely, always new. On the occasion I speak of, we had rowed to the head of a small inlet, and taking the light canoe on our shoulders, had made a portage of a few yards over a narrow neck of land into another sheet of water beyond. No sooner had we got ready to start rowing afresh than Tim—whose powers of vision were absolutely marvelous—caught sight of a seal sunning himself on a distant rock.

A council of war to decide on the best plan of approach was instantly held, and we determined to paddle the canoe cautiously round the bay, which was apparently entirely landlocked, keeping as close under the lee of the shore as possible. We knew, of course, that there must be an opening somewhere among the rocks into the open sea beyond, though, as is often the case, we could see no sign of one from the position we were in. We were destined to know more about that point, however, ere long. On we went, and after pulling slowly and cautiously for some time, we observed that the tide, which was falling, ran quite strongly enough to take us in the direction we wanted to go without help from the oars.

Presently I myself began to imagine I could distinguish something like the shape of an animal on the rock where Tim, who could see it quite plainly, had pointed out the seal. Soon after the creature moved its head slowly from side to side, and I began to make out its contour distinctly, and keeping my eye steadily fixed on him, got my rifle in readiness. At the rate we were going, a very few minutes more would bring us within range.



Fish Culture.

FISH IN THE CHEMUNG.

Seth Green, Esq.:

DEAR SIR—I know you will be kind enough to give us your opinion as to the next best stock to transfer to our stream—that is, the Chemung River. About five years ago this stream was stocked with black bass, and the fishing is simply immense. In a space of twelve miles on the Chemung the fishermen catch with hook and line not less than three hundred bass daily which average as many pounds in weight. They run from a half pound to two and a half pounds. They are fished for with dobsons and crabs, and no other fish in the stream seems to be caught. If we could stock the stream with some other good fish, thereby compelling the fishermen to change their bait, we might be successful in protecting the bass. Our stream is alive with those fish, and there is nothing else fished for. To describe that stream, you may judge for yourself what is best to transfer. It is rocky gravel bottom, with numerous rapids, and in all quite a rapid stream, with very few dams, which are always accessible in high water. Is there any species of salmon that would do well? Several gentlemen who take great interest in the protection of those fish wished me to write you and get your advice. Hoping you will be kind enough to return answer soon, that we may decide what to do, we remain respectfully yours,

Max Haight, Henry Jones, Oscar Bendy, James Serford, Jerome S. Hill, and many others.  
Elmira, N. Y., July 17, 1877.

THE REPLY.

GENTLEMEN—There is no other kind of fish that would be suitable for your river; any other kinds would do more hurt than good, for they would eat the young bass.

The bass do not need any other protection, except to not take them or allow them to be taken in any other manner than with rod and line, and not take them during spawning season. They spawn in this part of the State between June 15th and July 15th. Protect them during the above time and you will have plenty of bass as long as you proceed in this way.

If you allow eel weirs and nets to be used you will not have any bass; and if any parties use eel weirs or nets stop them before they take all the bass—in other words, “lock your stable door before the horse is stolen.” I am very much pleased to hear of the great success in stocking your river. You are one of the many that I get favorable reports from.

Yours,  
ROCHESTER, July 31, 1877. SETH GREEN.

FISH IN PELHAM BROOK.—In June, 1873, I placed a few hundred young salmon in the Bronx River, below White Plains, and as many more in Hutchinsons, or Pelham Brook, which flows into Long Island Sound at Pelham Bridge, Westchester County. I deposited the little fellows, in each case, in the shallow spring rivulets, whence in 1874, with hook and line, I took several, averaging the length of your hand. In 1875, and since, I could find none, hence I conclude that they all went to sea in the fall of 1874 and spring of 1875. Will you kindly request any of your readers who may live near Pelham Brook or West Farms estuaries to communicate to you any news of the return of these *Salmo salar* in the shape of grise? They should be heard from soon. MANHATTAN.  
New York, Aug. 7.

FISH CULTURE IN VIRGINIA.—A correspondent in Rockbridge County, Virginia, writes:

“The good results of the work of State Fish Commissions are now being shown. Large numbers of bass are now being taken in the Upper James and in the Jackson River, in the vicinity of Clifton Forge, Va. The Board of Supervisors of our county have taken steps to carry the law into effect in regard to the placing of fish ladders on all fish streams in the county. T. R. G.”

TRANSPORTING FRY.—As there is a vast difference of opinion in regard to the capacity necessary for the transportation of one million young whitefish, I having had the experience during the past season of transporting to three different localities the number above mentioned, and that by steamboat on Lake Michigan, which afforded the most favorable circumstances, I found it necessary to use fifteen fifty-quart cans and nine barrels, to enable us to transport them, with the lake water at our command, and that it would require at least one-third more room to carry the same amount any great distance by rail.

H. W. WEBSTER,  
Sup't Wis. Fishery Commission.

Rochester, N. Y., July 31.

NEW HAMPSHIRE.—100,000 shad have been placed in the Merrimack River, where the Contoocookville River unites with it. This is the second hundred thousand this season.

—The shipment of whitefish and trout eggs, elk, deer, grouse, etc., from the United States to New Zealand is one of the interesting phases of the acclimatizing work as now carried on between different countries.

—One hundred thousand shad from the South Hadley Falls, Mass., hatching establishment, have recently been placed in the Mississippi River at St. Paul.

—The Green River, at Mumfordsville, Ky., has been stocked with 100,000 young white shad.

—The Fish epidemic has broken out at Silver Lake, N. Y., and great numbers of fish are dying.

Natural History.

HYBRIDS.

We take pleasure in printing the following discussion of the “hybrids,” recently referred to in this journal. Prof. Gill is certainly qualified to speak with authority in this matter, and we presume that his dictum will be accepted as final. Such a hybrid as claimed would be a physiological impossibility:

SMITHSONIAN INSTITUTE,  
WASHINGTON, July 14, 1877.

EDITOR FOREST AND STREAM:

Apropos of the alleged hybrid between a cat and a raccoon noticed in your issues of June 21 and July 12, I would inform you that a similar “production” was heralded in “The American Naturalist” for October, 1871, by no less a man than Col. T. W. Higginson. As paragraphs respecting wonderful hybrids had been going the rounds of the papers at that period for some time, I considered it a kind of duty to enter a protest against belief in such monstrosities, and took the occasion of the publication by such a responsible man in a periodical of such established scientific nature as the “Naturalist” to do so. As a like reason now exists, I send herewith the article there published, which equally applies to the case in question, which you are at liberty to republish if you think proper. It need only be premised that the animal examined by Col. Higginson was seen at Taunton, Mass., and was said to have been born in China, Maine:

Editors of the Naturalist.—I find in the number of the “Naturalist” for Oct. 1871, vol. 6, p. 600 which has just come to hand a notice by Col. Higginson, endorsed by Prof. Jenks, of an alleged hybrid between a raccoon and cat, which is extremely tantalizing. No information as to the structural characteristics of the animal is given, and scarcely any as to other points, and yet it is not too much to say that the authentication of such hybridity would revolutionize physiology, for certainly nothing like it has hitherto been made known. Remarkable as was the alleged hybridity between the ram and doe roebuck (*Capreolus europæus*) recorded by Hellenius, it pales into insignificance when compared with hybridity between the cat and raccoon. We have, in the last mentioned animals, not only representatives of distinct genera and families, but of primary groups (Superfamilies) of the fissipede carnivores, characterized by differences of as great morphological value, as, for example, those between the horse and rhinoceros: those differences, in the animals in question, are exhibited especially in the osseous, digestive, and generative systems, and it is therefore desirable to know in what manner these systems are modified in the supposed hybrid; the living animal could readily be examined as to its dentition (the number of the molar teeth and their characteristics), the feet (whether digitigrade or plantigrade and whether tetradactyle or pentadactyle), the head (whether abbreviated and cat-like, reflecting the diminished number of teeth, or whether prolonged into an attenuated muzzle), and especially the character of the snout, whiskers, the claws, the tail and the pelage. The very vague information that has been furnished respecting the form, walk, tail and pelage is very insufficient, and conveys no clear idea as to the animal’s peculiarities. No clear idea, either, is obtained by the mere reader from the statement that “the animal when taken up by the tail, turned upon the aggressor with a fury far beyond that of a common cat.” Although my experience with cats under such conditions has been limited, I cannot conceive how more fury can be manifested than I have seen exhibited by one cat when subjected to such an interesting experiment. A clue is indeed furnished by the opening paragraph of Col. Higginson’s remarks, namely, that the animal “struck [him] at first as being the handsomest cat [he] had ever beheld,” and after this significant admission, it is more than probable that its characters would only require to be contrasted with those of an ordinary cat. It may be added that the wild cat (*Lynx rufus*) has “pointed and tufted ears” (which the raccoon has not) and hybridity between a domestic cat and lynx would not be improbable.\* My acquaintance with you, Messrs. Editors, assures me that you must have entertained considerable doubt respecting the reliability of such an account, although you have made no comments, and you would confer a boon on science if you would procure a photograph—not a drawing which might reflect, unintentionally, the imagination of the artist—of the animal in question. Until better evidence than has yet been brought forward is offered, naturalists will not only be excused for doubting any such hybridity, but would be inexorable for not doubting it, and you, gentlemen, will I doubt not, concur in this sentiment. I scarcely need remind you of the physical difficulty a male raccoon and a female cat would encounter in the prosecution of their amours, and that therefore if such a monstrous union were possible, the marriage must be between a cat and female raccoon. But until most cogent evidence is adduced, I must remain sceptical as to the possibility of any fruitful union whatever.

Of course, no reflection is cast upon the eminent gentlemen who published the account of the remarkable animal, and who have only repeated what they heard; they, probably not being very familiar with the order of mammals in question, naturally believed in and reflected the opinions of others. My only object in this communication is to elicit more evidence while it may readily be obtained, and I may be allowed to express the hope that when the animal—happily for the interest of science—dies, it may be reserved for a more worthy fate than to leave its skin stuffed for a museum: it should, of course, be submitted to the examination of a critical anatomist.

In conclusion, a few words respecting the nature of the evidence required in alleged cases of hybridity may be serviceable. In view of the constant statements respecting hybrids circulated in various publications, affirmations and beliefs are not sufficient. Hybrids partake of characters peculiar to each parent, but modified by the sex of each parent. Therefore all the men of China might swear they saw a cat and raccoon in *coitu* (and in view of the strength of the sexual instinct, the allegation might not be wholly incredible), and all the men of Taunton might swear that they believed that the offspring of one of the animals was the result of such amours (and in view of the credulity of man

\* It is, of course, not suggested that the animal in question is necessarily a hybrid at all, much less between the cat and lynx; the character of the tail alone rendering such origin highly improbable; it is merely intended to indicate within what limits hybridity might be credible.

and the general ignorance respecting nature, the reality of such belief would be quite credible!) but all such affirmations and beliefs would not meet the requisites of the case, unless the offspring shared characteristics of each parent, and even if it were further sworn that the female had been precluded from intercourse with another animal, it would be no further evidence, for unless the allegation should be confirmed by the characteristics of the animal, we would still have truthful and infallible nature against at least fallible man.—THEODORE GILL.

The editor of the *Naturalist* prefaced this communication with the following remarks:

“HYBRIDS.—Simply remarking that we strongly suspected that the supposed hybrid between the cat and raccoon was nothing more than a cross between an Angola and a common gray cat, a variety that is well known in this vicinity (Salem, Mass.), and in every way corresponding to the description given, and we thought it best to let the communication printed in the October number call forth comments on this oft recurring question of hybrids; we accordingly give the following careful summary of the subject with thanks to Dr. Gill for treating it in so concise a manner.—EWS.”

On subsequent inquiry I ascertained, as I had suspected, that the animal was nothing but a fine Angola cat, and it was said the offspring of an individual brought from “Africa” by the captain of a trading vessel.

Of course I cannot admit the possibility of the animal alluded to by G. C. S. being a hybrid, or having any intermediate characters between the cat and raccoon.

THEO. GILL.

VENUS’ SLIPPERS.—Mr. F. Buckland, in *Land and Water*, says: “These slippers are far more beautiful than anything ever yet turned out in the workshop of a London or Parisian ladies’ bootmaker. They are found floating far out at sea in the Mediterranean, on the French coast. Each slipper is about an inch and a half in length, and half an inch in the widest part. They are of a lovely glass-like consistency, and in certain light resplendent like jelly fish. They are the shape of a handsome shoe; the edge of the shoe projects in a very ornamental dentated margin, and the toe part is highly ornamental, as if with embroidery insertion. Mr. M. Latman says: ‘It is a kind of jelly fish; I have had considerable difficulty in finding out its real nature. At last I ascertained that it is one of the *pteropoda*, or wing-footed molluscs.’ The Rev. J. Wood writes: ‘These are so called from the fin-like lobes that project from the sides, and are evidently analogous to the similar organs in some of the sea snails. These appendages are used almost like wings, the creature flapping its way vigorously through the water, just as a butterfly urges its devious course through the air. They are found in the hotter seas, swimming boldly in vast multitudes amid the wide waters, and one species has long been celebrated as furnishing the huge Greenland whale with the greater part of its subsistence. The scientific name of it is *cymbulia*, so called on account of its being so like a boat.’

“These slippers of the Marine Venus are so beautiful in form and structure that I propose, if possible, to have a model of them cut in crystal. In the form of ear rings they would make very pretty ornaments, as showing the *chaussure* of Cinderella of the Ocean.”

SHARKS.

In the absence of any work treating on *Squalada*, or sharks, to instruct me, what I have to say in relation to these sea monsters must be mainly based upon personal experience and observation. The principal varieties met with on our coasts are the blue, mackerel, switch-tail, shovel-nose, hammer-head sharks, the little dog fish or dog shark, and occasionally—no mean member of the family—the white shark. These distinguishing names are mostly derived from some peculiarity of form or color of the fish. All the species have a rough skin resembling sand paper to the touch, and the top fluke of the tail is longer than the under, which feature is so wonderfully marked in the switch-tail that this organ is often as long as the remainder of the fish, and at once stamps him among his species. Their mouths, circular or convex in form, open so far under and behind the end of the nose, that they cannot seize things above them without turning upon their back; and their jaws are armed with numerous rows of sharp lanceolate teeth, except in the cases of the mackerel and dog sharks. The mackerel shark has round teeth, notwithstanding they often attain to large size, and the mouth of the little dog shark is encircled by a corrugated bony rim which serves them as teeth, and which enables them to prey upon molluscs, which the sharp tooth fellows cannot do. The largest shark I ever knew taken was of the blue variety, and was caught by a Mr. James Northrup. This fish was entangled in a gill net set off the beach for bass. Some time during the night the shark had struck the net, completely wound himself up in it, and came on shore, notwithstanding the two hundred pounds of stone to which the net was anchored, and was found by the owner of the net the next morning. This fish would weigh about one ton and was nineteen feet ten inches in length.

The *ovum* of the shark is white, about the size of a walnut, and perfectly round. In the absence of positive knowledge, I should say sharks are viviparous, since I have removed eggs from these fish which contained perfect living fry that could swim away. It is possible, however, that they may hatch soon after removal from the parent fish. I do not remember ever counting the ova of a single shark, but should say the number would range from sixteen to two hundred, the number being dependent upon the size of the fish. Sharks swimming at the surface of the water are distinguished from other large fish by exhibiting the dorsal fin, and the top fluke of the tail; while others rarely show other than the fin. All the shark family are migratory, and leave our coast during winter—the switch tail delays his stay longest in the fall, and the dogfish appears earliest in spring. These fish have a reputation for eating people, which I am persuaded they do not deserve. If they were the one-hundredth part as voracious for human flesh as one would be led to suppose

from reading of them, one thousand people would lose their lives at our watering places along our coast each season, since our shores swarm with these monsters every summer; and if one of them attempted to catch a man in the water and he were a hundred feet from him, the man could not turn around before the shark would devour him, for when fully under way for an object, a shark excels in speed. He catches the dolphin in a fair race, moves around a ship under full sail as though she was motionless, and he can glide past a boat within a rod, when the water is clear, with that rapidity that the eye cannot trace him; a man would stand a small chance if a shark went for him. I have been in the water among sharks where half a dozen large ones could see me at one time, and never especially regarded myself in danger from them, from simply swimming around where they were; but in a few instances when fishing for them and other fish, I have been a little alarmed. On one occasion I mounted the bow of the boat to strike a large blue shark with a small harpoon, and on planting the iron in the fish I lost my balance and fell overboard, and in striking out to swim caught a turn of the line around my ankle, and I reckon if the iron had not torn loose, I should have gone to "Davy Jones' locker"—as it was, I got pretty well choked with salt-water. On another occasion, while fishing for cod, I picked up a bunker, mashed it with my heel, and commenced to wash it overboard to bait the fish I was seeking. All at once the water began to boil under my hands, and what should I behold but no less than five large switch-tails, and one of them, as large around as a barrel, made a grab at the bunker in my hands, and they had the water boiling like a caldron for the space of two rods around. You can imagine I was not long in taking my hands from the water. The stories told about sharks eating people have been mainly circulated by officers of vessels. An old pet shark is a Godsend to a ship in port to prevent sailors swimming on shore for rum and other purposes. Currency has been given to the fierceness of these fish, until the danger has been so wonderfully magnified that even those who circulated the stories have frightened themselves. I cannot believe a shark ever bit a man while in the water, knowing it was a man, but from mistaken identity there may have been a very few cases of undoubted reality. Sharks are accustomed to follow vessels and attach themselves to them for what they can pick up to eat, and always when the cook empties the refuse of the galley, and as it splashes in the water, the old sentinel is on hand for his share.

STRAIGHT BORE.

SONG OF THE MOCKING BIRD.—Last night, at 11 o'clock, a mocking bird commenced his song from the top of a tree that overshadowed my house. At first I was inclined to believe that there was some fixed order or stated repetition in his mimicry of the songs of other birds, and to find out if there was I jotted down with a pencil his notes as repeated. After a prelude he dashed off into the songs and notes of other birds, repeating them over, from four to six times, with a distinctness and deliberation seldom heard.

Whippoorwill, house-wren, sparrow-hawk, house-wren, tufted titmouse ("keep it"), summer red bird, brown thrush, house-wren, blue bird, king bird, blue bird, blacksmith's hammer, or avil, young mocking bird, Guinea-fowl ("po-track"), house-wren, "keep it," blue bird, king bird, martin, house-wren, cat bird, young chicken, sapsucker, young mocking bird, fly catcher, house-wren, goldcrowing woodpecker, Baltimore oriole, pewee, young mocking bird, "Polly's a good weaver Dick," jay, "keep it," house-wren, song thrush, killdeer, young mocking bird, king bird, note of alarm of brown thrush, cardinal grosbeak, sparrow-hawk, house-wren, young rooster, tufted titmouse, whippoorwill.

After getting back to the whippoorwill he did not go through in the same order as before, but varied his repetitions of the song of the wren with the notes of the sparrow-hawk. The next time the notes of the bluejay seemed to strike his fancy, and the sharp "jay, jay, jay," and the softer "kalip, kalip, kalip," were repeated over and over again. The song was interspersed with trills and catches and notes of his own. The family duties of Mrs. Polly Glottus being over for the year, and food being abundant, her better half has nothing to do but serenade her, which he does with a vim, singing—as "darkey Dixon" played the fiddle—"pretty much all the time." GUYON.

Corinth, Miss., June 18, 1877.

FRESH WATER FISH IN SALT WATER.—In FOREST AND STREAM of May 17, we mentioned fifteen different varieties of fishes, included in nine different families, that live equally well in fresh and salt water, as they were debarred from either. The following from the *Scientific American* virtually sustains our position, though the writer starts with the contrary assumption:

It is well known that fresh water fish cannot live in salt water and *vice versa*, and it has been supposed that the reason existed in some poisonous effect which the inappropriate water exerted. M. Paul Bert has recently been investigating this subject, and his conclusion is that the death of the creature is not due to any toxic action, but is simply a phenomenon of osmosis or transmission of fluids through the membranes. In order to prove this it is only necessary to weigh the animal before and after the experiment. A frog, for example, plunged in sea-water loses one-third its weight. If only the foot of the frog be introduced the blood globules can be seen to leave the vessels and distribute themselves under the skin. If an animal be taken, the skin of which is not entirely osmotic, the same phenomena occur in the bronchial system.

There are certain fish, however, which exist sometimes in salt sometimes in fresh water, changing their habitat in different periods of life or of the year. It, therefore, in view of the above, becomes interesting to see how M. Bert applies his discovery to such apparent exceptions to the general rule. A fresh water salmon, for instance, plunged abruptly in sea-water resists the effects longer than any other fresh water

fishes; but he dies within five or six hours. This shows, according to M. Bert, that the fish never proceed suddenly from fresh to salt water, but enter brackish water where the tide ebbs and flows, and live there a sufficient time to habituate themselves to the change. This accounts for the frequent discovery of large numbers of such migratory fish in the vicinity of the mouths of the rivers which they ascend.

The converse experiment of inserting sea fish in fresh water produced analogous results. The gills were the seat of alterations, the same as those noted in fresh water fish placed in salt water. M. Bert also observed that the life of the sea fish could be prolonged by adding salt to the fresh water, thus adding further confirmation to his theory.

TAME FISH.—Plincy Jewell has a great deal of satisfaction every evening in feeding the crowd of gold-fish which swarm in the lake on his premises. The fish have learned to look for his daily visits. He first places a quantity of crackers in the water near the edge of the lake. The fish will not touch these, as they are for the birds who come flying down to look to get their evening meal. Then Mr. Jewell goes to the other side of the lake, and ringing a small bell, the water is seen to bubble and boil with the fishes which come hastily to the edge and grab at the bits of cracker and bread thrown into the water for them. Even the frogs and turtles come up for their share, and so tame have some of the frogs become that they will come out of the water and hop to Mr. Jewell's feet to pick up the crumbs that are dropped. The turtles eat ravenously and do not show the slightest sign of fear. One and all, birds, frogs, fish and turtles, seem to heartily enjoy their evening meal.—*Hartford Times*.

THE RIBBON FISH.—In a letter to *Land and Water*, Frank Buckland gives this description of this singular fish:

I have received, through the kindness of a correspondent at Nice, a very interesting and remarkable specimen of a ribbon fish. I make him out to be a *regalis*. I have never before seen one of these most curious fish in the flesh. It measures five feet, is about a quarter of an inch thick, and is of a silvery hue, not unlike the color of the silver-hair tail. Upon the top of the head there are filaments, which, when stretched to their full, are about eight inches long. The head is very remarkable; altogether it is not unlike the shortened head of a horse. The mouth is prehensile, and so peculiarly formed that it is quite worthy of a figure; the eyes are very large and circular; the iris of a lustrous silver color. Behind the head the body is two inches and a half deep, in the middle two inches, at the tail a quarter of an inch. When held up to the light it is almost transparent; the vertebrae can with difficulty be seen, but with the movement of the fingers each vertebra will give a slight crack at the junction with its neighbor. The vertebrae are longest and thickest toward the tail end, at which there are sharp spines. It is covered everywhere with a fine silvery powder, which readily comes off in the hand. It has a crest of about an inch in height, which runs down the whole of the back. The rays forming the crest are united to double pillars of very slender bone. In substance it is very delicate, and begins to dry and harden almost immediately on exposure to the air.

I cannot find much about this fish in any of my books. This family of ribbon-shape form consists of seven genera and twenty-six species. Mr. Swainson remarks of it as follows:

"It contains the most singular and extraordinary fishes in creation. The form of the body, when compared to fishes better known, is much like that of an eel, the length of the body being in the same proportion to the breadth; but then it is generally so much compressed that these creatures have acquired the popular name of ribbon fish, lath, or deal fish. The body, indeed, is often not thicker, except in the middle, than is a sword, and being covered with the richest silver, and of great length, the undulating motions of these fishes in the sea must be resplendent and beautiful beyond measure. But the wonders of the mighty deep are almost hidden from the eye of man. These meteoric, silver-coated fishes appear to live in the greatest depths, and it is only at long intervals, and after a succession of tempests, that a solitary individual is cast upon the shore with its delicate body torn and mutilated by the elements on the rocks, so that with few exceptions they are scarcely to be regarded as edible fish."

According to this authority, the Mediterranean has hitherto produced the largest proportion of the family, but it is distributed from the arctic regions to the sunny shores of India, so that probably a tithe have not yet been discovered.

HABITS OF ANTS.—Last week as I was coming in the gate my attention was attracted by seeing a stream of ants moving across the walk, going in different directions. They were traveling in a belt about four inches wide, and moving very rapidly. Of those going in one direction each had a large ant egg in its mouth. I followed the empty "mouthed" ones, and found they were robbing a nest of red ants. The nest was about one foot across, and was covered with red and black ants engaged in a most desperate battle, the reds trying to defend their home from their thievish enemies. At times the ants would form in little balls sliding and rolling over the ground. I observed that the black ants that were engaged in stealing took no part in the fight; but would seize the eggs and make for their own hill, leaving the fighting to be done by the rest of the band. The black ants, in making these depredations had to cross one carriage drive, two plank walks, and climb up a terrace two feet in height, the distance between the two hills being one hundred and fifty-two feet through the grass of an ordinary lawn. Out of curiosity I killed one of the black ants and took it to a jeweler and had it put in the balance with the egg it was carrying, when the egg was the heaviest, which shows the remarkable strength and endurance of these interesting insects. I once noticed a small red ant trying to carry a worm several times as heavy as itself up a small mound, on the top of which was its nest. After trying several time without success, it ran up the hill and disappeared in its hole, and presently returned with quite a number of companions, who easily carried their captive into the nest in spite of his struggles. J. S. S.

WHY EYES SHINE IN THE DARK.—It is often asked why the eyes of many animals exhibit a peculiar brilliancy which is remarkable in the dark. When darkness is absolute, no light is emitted, a fact which has been established by careful experiment; but a very small amount of light is sufficient to cause the luminous appearance of the optics. This brilliancy is due to a carpet of glittering fibres, known as the *tapetum*, which is but a carpet of glittering fibres found in the retina of certain animals

## CAPTURE OF BUTEO HARLANI (AUD.) IN TEXAS.

GAINESVILLE, TEXAS, March 18, 1877.

EDITOR FOREST AND STREAM:

As I have never seen any record of the capture of *Buteo harlani* in Texas, I submit the following description of one I shot on November 16, 1876:

Size—Length, 23½; extent, 49; wing, 16; tail, 10; tarsus, 5¼; greenish yellow, it is 1½ inch (chord of arc), 3rd 2½; bill, blue at base, 1¼. The "lobing" of the upper mandible approaches nearer to a tooth than in any of the *Buteones* I have examined, in fact grading close up to some of the accipiters, in this respect. The cere is greenish yellow, 4th quill longest but decidedly "sinuate tapering," first three quills emarginate; first quill is equal to the 5th in length. The black bars on the tail are definite, and run in waves, or rather form arrow heads on each feather with the point toward the base of the quill; tibial feathers long, eyes yellowish ash.

The plumage is in general blackish with a decided purple lustre, and much white spotting on many of the feathers. Throat white, with fine black pencillings. The "marbling" of the tail is not so definite as I expected to find it, and upon this character Mr. Ridgway places considerable emphasis.

I find those birds much more wary than any of the *Buteones* that winter here, and in fact it was rather an accidental capture of this one. I was standing on the bank of a creek in an open field with a few bushes surrounding me, when I observed this bird coming down the creek toward me. Screened by the bushes, I awaited his arrival, then rose up and fired. My gun being charged with small shot, I did not bring him down, but could see that my shot had taken effect. At the report of my gun he dropped a quail, upon examination, appeared to have been killed some time, as the muscles were relaxed, and the feathers damp from the dew of the morning. I examined it for shot holes thinking it must have been crippled, but could find none. Four hours after the first shot I shot the same hawk from its perch, and identified it by the dried blood upon the feet and feathers. I would like to know if the "lobing" of the upper mandible and the color of the eyes has been noted by other observers?

From some cause I failed to note the sex of this bird, which I regret very much. It is now in the possession of Mr. R. M. W. Gibbs, Kalamazoo, Mich. G. H. RAGSDALE.

[The specimen above described has been sent to the Smithsonian Institution, and is pronounced by Mr. R. Ridgway a true *Buteo harlani*.—Ed.]

## BIRDS KILLED BY TELEGRAPH WIRES.

POTTSVILLE, Pa., July 30, 1877.

EDITOR FOREST AND STREAM:

A small party of us left town last week on a fishing excursion, which was limited to Schuylkill county waters only. After spending three days in very successful angling, we returned home feeling much better and wiser. During our rambling we noticed that game of every kind is very abundant, and, if not molested, the field and forest in this section promises unusual charms for our sportsmen during the coming fall and winter season.

Notwithstanding the frequent charges hurled at the illegitimate action of the destroyer of game birds by means of trapping, snaring, etc., and those disregarding the season for propagation, yet we feel there is pardon for him when we seriously contemplate the many hundred thousand birds killed annually by flying against the telegraph wires, which form a murderous network over the greater part of the country. In support of this assertion it is only necessary to give some facts observed during the few days of our rustication, the most noteworthy of which was the finding of nearly one hundred dead birds in close proximity to the telegraph wire in a distance of four miles. Several of the birds we saw strike the wire and fall, and the appearance of those found dead was, in all respects, similar to that of those seen to strike and fall. Among them were a few young quails, flickers and robins; but the majority of the birds were larks, whose flight is singularly wayward and impulsive, which may account in a measure for their inability to clear the wire.

Have any of your numerous intelligent contributors made similar observations? DOM PEDRO.

[Dr. Coues, in a recent number of the *American Naturalist*, has discussed this matter at considerable length, and we recommend his article to our readers' notice.—Ed.]

ANIMALS RECEIVED AT CENTRAL PARK MENAGERIE FOR WEEK ENDING AUG. 11, 1877.—One least bittern (*Ardeotis exilis*); three golden-naped amazons (*Chrysotis auripalciata*); one gray parrot (*Psittacus erithacus*), presented by Dr. J. W. Clowes, N. Y. City.

The gray parrot or laro is a native of West Africa; has a plumage of an elegant ash-gray color, which is beautifully set off by a tail of the brightest crimson. It is remarkable for its tenacious memory, being able to repeat whole sentences with facility, and is very easily taught. The interesting and amusing anecdotes we read of the parrots relate for the most part to this species. It is extremely long lived, several well authenticated instances being recorded of its having attained the age of 60 or 70 years. In the wild state it builds its nests in the hollow trees, and Buffon mentions a certain pair that bred and hatched in captivity a brood for five or six consecutive years. It was among the earliest species imported from Africa, and nearly every vessel now that leaves the west coast brings a number of these birds, which are the property of the sailors. W. A. CONKLIN, Director.

ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDEN DURING WEEK ENDING TUESDAY, Aug. 7, 1877.—One great horned owl (*Bubo virginianus*), presented; one alligator (*A. mississippiensis*), presented; one snowy owl (*Nictala nivea*), presented; two pigeon hawks (*Accipiter fuscus*), purchased. ARTHUR E. BROWN, Gen'l. Supr.

—English scientific circles are just now enjoying the rare treat of interviewing a real live young gorilla, which is the first one ever successfully brought into Europe. Frank Buckland in a letter to *Land and Water* says the young stranger may prove an unwelcome witness against the Darwinian theory.

—A Mr. Tomimette, of Hamburg, Germany, has invented a method of preserving natural history specimens, by means of an injected gas, which absorbs the moisture of the tissues, and drives it out through the pores. Prepared thus, specimens preserve perfectly their form and color.

—The peculiarity of the fly is that he always returns to the same spot; but it is the characteristic of the mosquito that he always returns to another spot. Thus he differs from the leopard, which does not change his spots. This is an important fact in natural history.

Woodland, Farm and Garden.

FASHION IN GARDENING.

THE higher the point of civilization at which a country arrives, the more its inhabitants become the votaries of fashion, and that we in this country enjoy no immunity from the infliction is everywhere evident. If this did not extend beyond an indulgence in the luxuries of everyday life it would be of less consequence, but when the infliction spreads to matters of such importance as horticulture and arboriculture it behooves those who take an interest in these pursuits to look the matter fully in the face. It may be said that gardening, as it exists at the present day, is a luxury, and that, consequently, it must be governed by such fanciful laws as rule matters of a kindred character. This, it must be admitted, is correct so far as it relates to the purely decorative element, but here it does not stop. The introduction of a new genus of plants, or the resurrection of an old and in many cases an undeservedly neglected one, appears to be the signal for a universal mania in favor of the favorite of the hour, to the comparative neglect of other things. When a useful flowering or bedding plant, such as a *Gladiolus* or *Coleus*, makes its appearance, why should we for years run after varieties of them by the hundred, that have barely an infinitesimal difference from each other? In the case of new roses there might be some excuse, for any improvement relating to the Queen of Flowers is sure to be hailed with delight. Give us the true rose fragrance in a climbing rose, or bright color, combined with good habit and free flowering in a tree rose, and we would all rejoice; but how often are our expectations realized in proportion to the disappointments we experience? At present *Lilies* seem to share the general favor with the *Rose* and *Gladiolus*, and this may be looked upon as simply the *mode honorable* for the neglect into which this flower has been allowed to fall. In flowering plants, *Verbenas* have had their day. *Zonal Pelargoniums* now take the lead, but for the flower garden or parterre, far ahead of them come the "foliated plants," the *Coleus* and *Alternanthera*, the *Centaurea* and *Lineraria*, the white edged and bronze leaved *Zonal*, and other plants of a like character. In matters connected with the more essential and indispensable branch of gardening, let us notice the rage for new varieties of *Potatoes*, *Tomatoes* and *Corn*, nine-tenths of which are deficient in general properties compared with others they are intended to supplant. In fruits it is even worse. How much disappointment has been experienced by those who have supplanted old and well tried varieties of *Grapes*, *Peaches* or *Strawberries* with newer varieties, which, after a trial, have in many instances been either rooted out altogether or, headed over, made to do duty as stocks? These are a few of the positive inflictions which fashion imposes on us in matters horticultural. Those of a negative character are equally baneful. What have we to compensate us for the neglect into which numbers of old and tried friends among herbaceous plants have been allowed to fall? Nothing except blazing stripes and circles of red, white and yellow, the glare of which is, fortunately, short-lived, for their repetition becomes a positive infliction on the eye. Let it not be understood that we would discountenance healthy progress in any thing appertaining to horticulture, for in it, as in other matters, it is human to require novelty and change. But the evil is that whatever becomes fashionable, either in any particular family of plants or in the manner in which we employ them, we for a time lose sight of others of far greater importance. Again, if we look to arboriculture we find that fashion has inflicted something more serious than a passing disappointment. Both in the vicinity of the villa and in that of the more extensive country seat it is desirable to get as much variety as possible; this no one will attempt to deny; but have our planting operations been judicious? Have they not been governed to too great an extent by a rage for novelties in the shape of *Coniferous* plants, numbers of which are unsuited to the situations in which they have been planted and are incapable of withstanding our severe winters, leaving blanks that take years to fill up. Think of the numbers of grand deciduous trees and flowering shrubs that, comparatively, have been cast unto the shade by these new-comers. Let us then encourage planting the more serviceable oak, ash, or hickory in our parks and hedge-rows, trees that are ever increasing in value; above all, let us not be carried away by the fashion of the hour for one or another particular kind of plant or flower, but remembering the more useful and tried friends that are always beautiful, thoroughly test the newcomers before we give them a prominent place in our gardens or pleasure grounds.

**CRASSULA COCCINEA.**—This is an old greenhouse favorite, much thought of in former days, when gardeners used to grow specimens of it several feet through, each shoot being furnished at its summit with a broad truss of waxy-scarlet flowers, showy and sweet-scented. The plant also grows out of doors freely in summer, and when in flower makes one of the most brilliant and effective of beds. This plant is known to-day as *Kalossautes*. To flower it well it requires to be grown in hot, dry quarters. Cuttings, which strike very easily, should be made from the young shoots which have not flowered in August or early in September. Make the cuttings about three inches long; do not stop them, but divest them of a few of their bottom leaves, and pot each singly and firmly in a three-inch pot, using a light compost of sand, leaf-mould, loam, and pounded bricks or crocks. They will soon root if placed near the glass in a warm pit, or an intermediate house shelf, if they are not damped too much at top or bottom. When rooted remove them to a cool dry greenhouse for the winter, and give scarcely any water till spring; the object at this time is simply to keep them at rest. About the beginning of March the plants may be potted in 8-inch or 9-inch pots, which is a suitable size for plants intended to have six or seven shoots. A little heavier compost should be used for this, the final potting, and with it plenty of broken crocks or bricks, taking care also to drain the pots thoroughly. After potting, the plants should have a growing temperature near the light. A warm greenhouse or pit will do, but do not give too much water at any time.

At this stage some of the plants will break up into a number of shoots at the top, and the others will keep to a single shoot only. The former should be thinned out to six or eight shoots, and the latter pinched at the top to make them break; also the young shoots secured in this way will bear the flowers. By May the plants will be growing fast, and at this time they may, in warm localities, be plunged out of doors in a warm corner. In front of a hothouse is a good place for them, and it is a common practice to plunge them in sand, which gets hot with the sun; otherwise they need not be plunged at all, but simply set on a hard surface. In cold localities it is better to grow the plants under glass all summer, with plenty of air and sun. Whichever plan is adopted, let the plants from this time grow uninterruptedly, and before cold weather sets in take them into any house where the temperature is genial and dry. Here they will show flower, if the trusses are not already in an advanced state, and the season of flowering may be prolonged by keeping the plants in cool houses. If the plants are intended for planting out, they must simply be wintered in a cool house, and not permitted to flower, and planted out the following season, where they will be certain to flower and make a bright display.—*J., in the "Garden," London.*

**CUCUMBERS IN RUSSIA.**—On my way home from the fair of Nijni-Novgorod, says a correspondent of the *Daily News*, I was again struck with what I often remarked before, viz., the profusion of water melons and cucumbers, which were being everywhere offered for sale. Pyramids of melons and water-melons, like cannon balls in an arsenal, were heaped up in every direction, and as for cucumbers, you couldn't help fancying that a plague of encumbers, like locusts, had descended upon the earth. All along the Volga, from Astrakhan to Nijni, the whole population seemed engaged in eating water melons. Their price being three *sopekis*, equivalent to one penny, put them within the reach of even the moderately wealthy. At every wood station that we stopped at, the water melon and its rival, the sunflower, were the subject of a lively traffic. Saratov seemed to be the headquarters of this latter fruit, but we had outposts all along the line. But if the water melon and the sunflower are luxuries and pastimes, the cucumber is a law and a necessity. You never see a Russian peasant at dinner but you see the lump of black bread and the cucumber. A moujik's dinner may be said to consist of *x* plus cucumber. The *x* will consist of his favorite cabbage soup (*schtchi*), with or without meat in it, and sometimes in addition to it the equally famous grit porridge (*kascha*). Sometimes the *kascha* is without *schtchi*, and sometimes the *schtchi* is without the *kascha*, but whether in separation or combination, the cucumber, at least, is always there; and should *x* equal zero, as I am afraid it sometimes does, then the ever-faithful cucumber does duty for all the rest. Cucumber seems certainly a singular dish to be so national in a country with a climate like Russia's. It is the last that one would select *a priori* for the post; but this is only one of a great many singularities one meets with. The cucumber costs the thirtieth part of a penny about the Volga; perhaps this fact will explain the anomaly.

**BUDDING FRUIT TREES.**—P. T. Quinn, in the mid-summer *Seriviner's*, gives these directions for budding orchard trees:

The proper time for budding extends from the middle of July until the first of September. Whenever the bark separates easily from the wood, the buds may be set, with fair chances of success. The outfit for budding consists of some narrow strips of bass matting, such as comes on the inside of coffee-bags, and a pocket-knife with a single blade, with a small piece of ivory fastened in the end of the handle. When the incision is made the ivory is used to raise the bark up on either side, so that the bud may be pressed into place. The buds to be inserted should be cut from young, healthy trees, and always of the present year's growth, those that are most mature being selected. The leaves may then be clipped off the branch of buds; leaving say half an inch of the leaf stalk attached to the bud. Then with a keen-edged knife cut off each bud separately from a half to three-quarters of an inch in length, leaving an inch square of the leaf stalk attached to the bud. These should be kept moist and protected from the sun or air until set, exposure even for a short time may prove fatal.

When the whole top or any part of it is to be budded over, select the spot for each bud in a smooth part of the branch, not too large, say from one to two inches in diameter. On this part make an incision through the bark in the form of the capital letter T, and raise or separate the bark from the wood with the ivory on the handle of the knife. The bud may then be pressed into place, cutting off square the portion that goes above the cross incision. Then with a strip of the bass matting wrap firmly around the branch above and below the eye, fastening the end of the strip by a slip-knot.

**TRANSPLANTING FOREST TREES.**—Pioneer, in the *Prairie Farmer*, says, in regard to transplanting forest trees:

Before taking up a tree, mark it in some manner so you will know which is the north side, so as to be able to reset it in exactly the position it grew in the woods. This may seem to many of us an impotence, but to those who know that there is in the bark and wood of all trees a radical difference between the north and south sides, the north side being close grained and tough, while the south side is invariably more open grained and brittle, or soft, the impotence will be seen. If this is done, your tree does not have to undergo a complete change in all the parts, and is ready to start off and grow at proper time as readily as though it had not been moved.

**ASPARAGUS IN OLD TIMES.**—At Ravenna the Romans cultivated asparagus with most extraordinary results, the stems weighing three pounds each. The same as to-day, they allowed it to boil but a short time, as it was a favorite expression with Augustus, when he wished a thing accomplished quickly, "Let that be done quicker than you would cook asparagus." The Roman cooks chose the fittest heads of asparagus and dried them. When wanted for the table, they put them in hot water and boiled them a few minutes, a plan good enough to be followed at the present day. B.

**AN OLD ROSE.**—Never give up a decaying rose bush till you have tried watering it two or three times a week with a soot tea. Make the tea with boiling water, from soot taken from the chimney or stove in which wood is burned. When cold, water the bush with it. When it is used up, pour boiling hot water on the soot a second time. Rose bushes treated in this way will often quickly send out thrifty shoots, the leaves will become large and thick, and blossoms will greatly improve in size and be more richly tinted than before.—*Exeter News Letter.*

—An ice machine in Dallas, Texas, just finished, produces ice cakes thirty feet long and six feet wide, weighing from 10,000 to 12,000 pounds each. They are formed by freezing fine rain or spray. When the freezing is done the bottom and sides of the cake are thawed loose from the inclined plane, and the cake slides out upon a platform, where it is cut into pieces six feet square. Four cakes a day are frozen. The works cost \$30,000.

—Eagle Island, near Newburyport, Mass., has a coffee tree raised from seed smuggled during the time of the embargo. The tree bears, but the berries do not ripen, and have very little of the coffee taste.

—In the Luxembourg Gardens of Paris are eighty lilac trees in full bloom, which were planted by Marie de Medicis two hundred and fifty years ago.

—An eagle shot in Wisconsin the other day was found to have twelve bullets in him. It must have been a balled eagle.—*Ex.*

**GALE'S PATENT TENTS.**—Rev. F. Savage, of Albany, widely known as a camper-out in Florida and the Adirondaeks, writes as follows:

*Gale & Co., Boston.* July 31, 1877.

SIR:—I have just returned from a three week's camping expedition in the Adirondaeks, and have had the three (3) tents bought from you put to the severest tests of exposure, both as to wind and storm, and do most unhesitatingly say they are the most complete thing of the kind I ever used.

1. They are easily put up and taken down.
  2. They are perfectly waterproof.
  3. They are a good height and all the room is available.
- Our party asked for no better. They were admired by all who saw them, and one party insisted on buying one of ours that was to spare. Rev. Dr. Duryea, of Brooklyn, and Rev. Dr. Irwin, of Troy, both of whom used your tents, endorse all I say about them. With kind regards,

Yours truly, F. B. SAVAGE, —*L. A. D.*

**A NEW MINERAL WATER.**—Mineral water is firmly established as an indispensable summer drink. The average man, who formerly tried in vain to quench his thirst with soda-water, or some one of the many dia-bolical compounds labeled "small-beer," and had a headache and an uneasy stomach afterward, now calls for some kind of mineral water to stop his thirst and aid his digestion. But even in mineral waters there is a preference to be had. If none of them are absolutely injurious some of them are vastly more beneficial than the others. A comparatively new spring has been discovered, which seems to belong to the desirable class which has all of the health giving properties, with no impurities whatever, and what is of almost equal importance, has a pleasant flavor also. It is called the Apollinaris Natural Mineral Water. It comes from a natural spring near Neuenahr, in Rhenish Prussia. The yield of this spring is something enormous, being estimated at 400 quarts every four minutes, and at 40,000,000 quarts a year.

It is especially urged in favor of the Apollinaris Water that it contains a larger amount of carbonic acid than any other water, either natural or artificial. It is estimated that more than 99 per cent. of the gases contained in it are carbonic acid, which gives it that strong effervescence which causes it to remain fresh and brisk long after the cork is withdrawn. The mild alkalinity of the water gives a soft and pleasant tone to this effervescent and refreshing beverage, more agreeable to most palates than the very marked and saline flavor of other springs. The verdict of the mouth is confirmed by the whole digestive tract. The too acid condition of the stomach, from which many suffer, is happily corrected by this alkaline water, and it is entirely free from poisonous metals, as lead, copper, etc., as well as organic impurities.

Dr. William A. Hammond says: "For several months past I have made extensive use of the Apollinaris water in cases of nervous irritability attended with dyspepsia and lithic acid or oxalic acid diathesis, and always with good effect. It appears to me to be indicated in all cases in which the Vichy Waters have been heretofore prescribed. As a daily beverage, alone or with wine, it is, in my opinion, far superior to Vichy, Seitzer, or any other mineral water." Dr. Fordyce Baker is scarcely less emphatic, saying: "I have made use of the Apollinaris Water for six or eight years past, and regard it as by far the most agreeable of all the mineral waters as a beverage for the table, whether drunk alone or mixed with claret, sherry or champagne. It is light, sparkling and easy of digestion, and I am convinced of its utility in certain catarrhal conditions of the mucous membranes, especially of the stomach and bladder, and in those persons predisposed to gonorrhea in its mild forms."

Its freedom from metallic poisons, already referred to, enables the chemist to coincide with eminent medical authorities in commending it as an absolutely pure, wholesome, as well as pleasant mineral water superior to all others as a daily beverage.—*See ad.*

**REMEDY FOR STINGS.**—Mrs. Henry Ward Beecher says that wet tobacco is a certain remedy for the stings of bees, wasps, hornets, etc. The application of moistened tobacco should be immediate, and the resulting relief is sure and speedy.

—English butchers have invented a method of butchering animals by the explosion of a small primer of dynamite, which is attached to the forehead of the animal to be slaughtered, and is exploded by means of an electric fuse.

—The mean mid-day temperature at New Smyrna, Florida, for the month of July was 87 deg., 23 m. Maximum, 96 deg.; minimum, 77 deg.

## The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age. 2. Food and medicine given. 3. Appearance of the eye; of the coat; of the tongue and lips. 4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc. 5. Breathing, the number of respirations per minute, and whether labored or not. 6. Condition of the bowels and secretions of the kidneys, color, etc. 7. Appetite; regular, variable, etc. 8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg. 9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

### RUSSIAN SETTERS.

ALAS! oh, "Amicus Veritatis," that in criticising my remarks about Clumber spaniels at the New York Bench Show, thou shouldst have paved the way with a compliment that has so nettled "Canonicus." I have just been enjoying the treat of reading the numbers of FOREST AND STREAM, published during my two months' absence beyond its reach, and after the terrible slashing at the hands of "C.," I ought, no doubt, to feel too weak to hold a pen. "Canonicus" states that he did not write his letter in a "carping spirit," and certainly his spirit seemed to partake less of the nature of carp than of a shark that wished to devour me for my presumption in daring to express an opinion.

Thoroughbred, straight-haired Clumber spaniels I have seen, but not at the New York Bench Show. That was more my misfortune than my fault. It seems I looked for them in vain, and the brace described by "Amicus Veritatis," as corresponding to the type of the class, must have been elsewhere than among the spaniels at the various times I looked there for them. I could not have seen them and passed them by unnoticed, for, as the editor of FOREST AND STREAM remarks, their characteristics distinguish them unmistakably from any other breed. Of course I knew that in making any remarks other than complimentary, I was liable to tread on some one's corns, and bring down contempt upon my head. I wrote my letter while traveling, and acknowledging that I had not the "Young Sportsman's Manual" as a guidebook, "Canonicus" will be convinced that I was literally at sea—*ab initio*. I did read Frank Forester's writings, and some of my theoretical knowledge thus acquired has been upset by practical experience. While sharing with "C." the admiration of Mr. Herbert as a sportsman, I do not regard him as an authority on classification, nor at the present time the best authority on any department of sporting matters. "C." quotes what Frank Forester *thinks* is a "Russian setter."

"Rather taller than the English or Irish dog, his head shorter and rounder than that of this family, and like the rest of his body, is so completely covered with long, woolly matted locks, tangled and curly, like those of the water poodle, on ten times more so, that he can hardly see out of his eyes," and he adds, "I have never seen a pure one." If any reader of FOREST AND STREAM has ever seen a *pure one* can he give its pedigree? One frequently hears of the "cross of a Russian setter" or a "half-breed," but where are the "pure ones," and their pedigrees? Modern works on the dog make mention of the "Russian setter, and give some brief description usually taken from a previous publication, adding the remark that "they are rare," or the "pure breed is seldom seen." But little information is given in regard to this dog, whose short, rounded head and curly coat "like that of the water poodle, would entitle him to classification as a retriever. Were such a dog sent to a bench show, with no accompanying information, and it rested with the committee in charge to classify it, would it be placed among the setters? The lack of more definite knowledge of the history of this dog, and the meagre description given by standard authorities in canine matters, tend to corroborate an opinion that at the least there is much doubt if it is, as "C." states, "a setter strain that has been bred and kept strictly pure for the past century." I do not accept as a proof of this fact "C.'s" quotation from Herbert, "Russian setters have what is called more point. They crouch lower, and steal in more silently on their game than any other dog, consequently they are the best in the world over which to shoot game when it is wild." This is neither any argument nor proof that it has been *purely bred as a strain of setters*. It is my good fortune to have friends among the Russians, and to one of them in particular, a resident of Riga, am I indebted for information that I considered valuable, coming, as it did, from a sportsman well posted in regard to this subject. We had much discussion upon the topic of mutual interest, field sports and their accessories, and of sporting dogs in particular.

He assured me that all their stock of setters came from England; and that the dogs described as "Russian Setters" were the result of a cross between setters and native dogs. He did not consider these dogs entitled to classification as a breed of setters, for they differed from that well established breed in important characteristics. Nor did he know of them being bred for successive generations as a pure strain without cross.

The usefulness of this dog in the field I would not deny, nor would I that of any other dog whose good qualities have been proved. If "Canonicus" has "gun-shy and timid brutes," very likely a cross with the dog described would improve them. If his dogs are pointers, let him try a cross with the Dalmatian breed. But I can find for him plenty of setters whose courage, dash, or retrieving qualities would not be improved by a cross with other breeds, and whose beauty of form, coat, and color, would be thus impaired. Few sportsmen desire great size for a setter, and "C." need not seek a cross to be pleased in this respect. I can inform him of a setter, a good field dog, that stands thirty inches at the shoulder. If

those dogs which, for size and coat, "might have passed for Newfoundland," proved to the mind of "Canonicus," by their "dash in action, staunchness on game, crouching instead of pointing the birds, and admirable retrieving qualities," that they were true setters of a pure-bred strain, might not a well-trained Lurcher thus prove an equal right to the same distinction?

I know that in expressing my belief in regard to the "Russian setter," I was making a statement likely to provoke discussion, but it is upon a subject that is of interest to sportsmen, and I would much like to see something from the pen of "Istone" on this subject, or from some one better known to the public and more competent to speak than myself. Notwithstanding "C.'s" accusation of "lamentable ignorance," etc., he has failed to give me more light on the subject, and I still believe that there is no established pure breed of setters peculiar to Russia. AMICUS CANTUM.

DOGS FOR CLOSE COVERT.—In the course of my summer wandering in New Hampshire this year I had occasion, in following the course of a stream in pursuit of its speckled denizens, to pass through a swamp where the underbrush was so dense as to form an impassable barrier for either man or beast. Following the bed of the stream, though, I avoided the brush and accomplished its length. After getting in some distance, at almost every step as I proceeded woodcock flew up right and left, until the place seemed fairly alive with them.

Now, I am not much of a shot myself, but the sight of those birds set the blood tingling through my veins in a way quite unusual. Of course I have marked the place and intend taking it in this fall. But one obstacle presents—the density of the underbrush; composed as it is principally of blackberry and wild rose bushes, both of the standard and running varieties, tangled together into impenetrable thickets, presents an impassable barrier to any dog of which I have knowledge.

A setter could not possibly accomplish it, perhaps a cocker might; but his bark is, in my mind, a great objection. I don't think you want your approach so thoroughly advertised. And then, too, I don't think he has bone and muscle enough to push through with.

I am told, though, that a spaniel does exist thoroughly mute and tractable, with long, low body and legs of great strength, to whom a thicket presents no obstruction, but on the contrary affords delight. Have I been deceived, or does such a variety exist, and where can it be procured? M. B.

[There are such dogs, and they are cocker and springer spaniels. They will work in tangled coverts, as described above, and so far from the bark being objectionable, most sportsmen consider it a desideratum, in order to give notice that the dog is on game. Formerly this was thought so important that, if a spaniel happened to be mute, he was hunted with a bell around his neck. The clumbers are invariably mute. A thoroughbred cocker or springer properly broken will not advertise one's approach any too soon, and will be found to possess sufficient bone and muscle, backed by plenty of ambition.—Ed.]

PEDIGREES.—Permit me to say through your columns to all persons sending pedigrees for insertion in the N. A. K. C. Register, it is necessary that the *full address* of owners be given. The address of breeders should also be given whenever practicable. I will furnish proper blanks on application. ARNOLD BURGESS, Compiler of Kennel Register.

NAME CLAIMED.—I claim the name of Black Jack for my black native setter pup, whelped Dec. 17th, 1876, by Dr. Wynn's Duke out of my Black Bessie, she by Halsey's Sport out of Ardold Burgess' "Belle." F. W. JONES.

—I claim the name of "Rival" for my pure liver and white pointer dog pup, out of champion Royal Fan, sired by champion Ranger. S. B. DILLEY.

LAKE CITY, Minn.

—It may be interesting to know of Daisy. This fine bitch, who won the first prize at W. K. C. show, is being hunted on woodcock. Dick Steward, her trainer, writes that she works just like an old dog, and really needs scarcely any breaking, points and retrieves her birds naturally; her age is only fourteen months, and she pointed when only two months old. She is a great grand-daughter of George, imported by Sir Fred Bruce, and daughter of Flake.

CLAIMING OF NAMES.—In our last issue Mr. F. R. Ryer claims the name of "Con" for a setter puppy, the same name having been claimed by Mr. Rob't H. Morris in the issue previous. Mr. Ryer bases his claim on the fact that his dog was named in the *T. F. P.* of July 8th. In reply, Mr. Morris appeals to us as follows:

"As a constant and careful reader of the FOREST AND STREAM AND RON AND GUN, I have always considered it the only correct canine authority and register. I therefore claimed the name of 'Con' for my red Irish setter pup, the name never having been claimed by my knowledge through the columns of your paper before. I do not desire a controversy with Mr. Ryer, but would be pleased to have your opinion as to who is right."

[When there were two or three different kennel registers, the priority claim in the columns of the FOREST AND STREAM might hold. Now all registers are merged into one, under the auspices of the National Kennel Club; therefore to it properly belongs the decision. We do our share in giving notice of the baptism, without standing as God-father to the canines, and therefore request that gentlemen settle these little matters themselves.—Ed.]

THE NEWSBOYS' DOG.—The newsboys of this city have long been the owners of a large Newfoundland dog, which answered to friendly salutations when addressed as "Tige." He was an intelligent animal, and enjoyed the benefits of a good education in his peculiar line of business. He knew all the police officers of the city, and whenever the boys felt like regal-

ing themselves in a social game of "chuck-a-luck" or "high die," Tige took up his position on the ramparts of safety, and never failed to give the alarm when a "peeler" hove in sight. During the Christmas holidays, and on all state occasions, he was decorated with all the gorgeous paraphernalia that the inventive talents of his keepers could suggest, and invariably, at the extremity of his caudal appendage, a "bunch of blue ribbons," and of which he was very proud, if the wag of his tail high in air could be taken as an indication of his internal emotions. Yesterday, about twelve o'clock, while rambling around the city in quest of his usual amount of recreation, Tige had the misfortune to encounter a piece of medicated dog meat. He smelled of it, and concluding that it was all right, he opened his mouth and took it in. It was not long, however, before "Tige" began to show signs of being sick. The news of his malady spread among the boys rapidly. He was taken in charge and brought to the place of rendezvous, in rear of the News office, and the medicine man of the newsboy brigade was summoned to his relief. He came, and prescribed copious draughts of sweet milk, which he ordered to be followed by heroic doses of castor oil, but the treatment was in vain. The boys rubbed him and bathed him, but it was of no use. Soon Tige's intelligent eyes began to lose their lustre, and he was no longer able to swallow. Mr. M. Keneff was sent for, and suggested that a dose of ipecac administered in hot water would "do the business" for the sufferer; but hot water could not be had, and as a dernier resort one of the boys tried to catch a bottle of steam with which to wash down the emetic. Before he succeeded Tige had breathed his last, surrounded by his friends, the recipient of all the attention they could bestow upon him. Late in the evening his funeral took place from the residence of the boys, near the corner of Twenty-ninth and Mechanic streets. They utilized the mail cart of the News as a hearse, and draping the wheels with crepe and all the appropriate emblems of sorrow, they placed the remains of the dog in it, and covered them over with a white cloth. On the rear of the cart was this inscription, "Poor Tige is dead, our pet." Jimmy Heron was the marshal of the procession, and, mounted upon a mustang, he led the cortege through the streets. The hearse was drawn by the boys, who kept time to the measured taps of the drum at the head of their column. All the principal streets of the city were paraded, and, just as the sun went down, the boys dumped "Old Tige" into the bay from the planking on William's wharf. They offer a reward of \$10 for the policeman who gave him the poison. Thus ends the existence of a well-known character of this city.—*Galveston News*.

—Great Britain derives a revenue of £267,174 from the dog tax.

STOLEN!—A red Irish setter dog was stolen July 29 from Conlin's Gallery, 1,222 Broadway, New York. The dog is a little larger than the average size of his breed, and was marked as follows: Gray streak on head, large white spot on breast, and a few white spots on paws. He was not broken, but would "charge," generally drawing one of his fore paws under body. When stolen the dog wore a collar which had on it his license tag, No. 226. Any information given in regard to the whereabouts, or what may lead to his return, will be liberally rewarded. —[Adv.] FRED'K CONLIN, 1,222 Broadway.

## Sea and River Fishing.

### FISH IN SEASON IN AUGUST.

FRESH WATER.	SALT WATER.
Trout, <i>Salmo fontinalis</i> .	Sea Bass, <i>Serranus ocellatus</i> .
Salmon, <i>Salmo salar</i> .	Sheepshead, <i>Achoerodus probatocephalus</i> .
Salmon Trout, <i>Salmo confinis</i> .	Striped Bass, <i>Morone americana</i> .
Land-locked Salmon, <i>Salmo gloveri</i> .	White Perch, <i>Morone americana</i> .
Grayling, <i>Thymallus tricolor</i> .	Weakfish, <i>Cynoscion regalis</i> .
Black Bass, <i>Micropogonias undulatus</i> .	Bluefish, <i>Pomatomus saltatrix</i> .
<i>M. nigricans</i> .	Spanish Mackerel, <i>Cybinus maculatus</i> .
Masacouton, <i>Esox nubilus</i> .	Cero, <i>Cybinus regalis</i> .
Pike or Pickerel, <i>Esox lucius</i> .	Bonito, <i>Sarda peloncus</i> .
Yellow Perch, <i>Perca flavescens</i> .	Kingfish, <i>Melicottus nebulosus</i> .

FISH IN MARKET.—The market is well stocked; fish are abundant, and, with the exception of fresh mackerel, the prices are low. Our quotations for the week are as follows:

Striped bass, 20 cents per pound; bluefish, 10 cents; salmon, green, 25 cents; frozen do, 30 cents; mackerel, 15 to 25 cents; weakfish, 10 cents; white perch, 15 cents; Spanish mackerel, 25 cents; green turtle, 12 cents; halibut, 18 cents; haddock, 6 cents; king-fish, 25 cents; codfish, 8 cents; blackfish, 15 cents; herrings, 8 cents; flounders, 8 cents; porgies, 10 cents; sea bass, 18 cents; eels, 18 cents; lobsters, 10 cents; soft clams, 30 to 60 cents per 100; Long Island trout, 75 cents; sheepshead, 20 cents; whitefish, 18 cents; Canada do., 50 cents; hard shell crabs, \$3 per 100; soft crabs, \$1 25 per dozen; frog legs, 35 cents per pound.

TROUBLE AMONG THAMES ANGLERS.—The London papers of June 27th report an extraordinary trial at Guildhall before Baron Pollock and a common jury. The case was that of Jones against Gant, and was a libel case arising out of circumstances that were of interest to Thames anglers. The plaintiff was a cork dealer, carrying on business at Snowhill, and the defendant lives in Paternoster row. It appears that the Piscatorial Society give annual prizes for those who on a certain day capture the largest number of barbel. The defendant proposed to compete for this prize, and in September last repaired with a brother angler to Sonning, where after a careful examination of the water, he selected a "swim" which for some days previous to the contest he was at much trouble to bait with worms and grubs of a most spicy character, brought from considerable distance for that purpose. Monday, Sept. 11, was the day arranged for the interesting event, by which time it was hoped that a great many fine barbel, cut by the unusual supply of refreshment, would be waiting to be caught. Mr. Gant took up his quarters at the French Horn, and all went pleasantly enough till the plaintiff made his appearance on the Saturday evening. This gentleman announced in his evidence that he had been a fisherman from his youth,

and that he had known the defendant, as well as the "swim" in question, for many years. On the Saturday evening Mr. Jones also went down to the river, and regaled the fish with ground bait at various spots, and early on Sunday morning he arose, and, equipped with rod and tackle, as well as with plenty of lob-worms and other delicacies, commenced operations against the fish. The complaint against Mr. Jones will be seen from the following letter, signed by the defendant, which was the libel complained of, and which appeared in the *Field* of September 16, under the heading "Appropriation of Baited Swims:—"

Sir—As you are probably aware, the members of the Piscatorial Society have an annual barbel outing, which came off on Monday last, September 11. Mr. Jardine and myself decided upon going down to Sonning; I went down on Saturday, September 2, and after trying various "swims," decided on one for our day's angling. This swim I baited daily up to Saturday, September 9, so that a day should elapse from the last baiting to the day of fishing. On the evening of this day, September 9, a person came down from London to fish. When I found that he was going for barbel I told him the object of our visit and the "swim" I had selected and baited. Mr. Hull, of the French Horn, also told him, and a promise was made by him that our "swim" should not be interfered with. On Sunday morning the man crept stealthily away from the house a little after 5, went to the "swim," and I saw him fishing it two hours after ward; and again on Monday morning, when Mr. Jardine and myself reached it at 9 o'clock, he was in the act of leaving it. I make no comments on this, for there is nothing I could write sufficiently expressive to convey my contempt. I brought the subject before the Piscatorial Society on Monday night; there was but one feeling—that of disgust—that such a person should call himself an angler; and it was put by the chairman and carried unanimously that I should send to the *Field*, giving the man's name and address, which is John Jones, cork dealer, King street, Snow Hill.

J. W. GANT.

The plaintiff denied that he had purposely fished in Mr. Gant's "swim," or that its position had ever been explained to him. A long correspondence ensued in the *Field*, which resulted in the present action, to which the defendant pleaded that all the statements in the letter were true, with the exception of that relating to the action of the Piscatorial Society, which had not been adopted unanimously, but "suggested by the chairman and approved by a majority." The defendant declared positively that he informed the plaintiff of the "swim" which he had selected, and also that he had baited it in preparation for the contest. The bait used had cost him £3, and had been sent from Nottingham, as the worms in that neighborhood are supposed by fishermen to possess a peculiarly fine flavor, and to be particularly agreeable to the palate of a barbel. On the Monday in question the defendant betook himself to his "swim," and there encountered Mr. Jones, who was just leaving it, when a sharp conversation ensued between them. Mr. Gant and his friend afterward fished from 9 o'clock until 3 without getting a single bite, a result which they attributed to the visits of the plaintiff to the same "swim." The plaintiff insinuated that the defendant fished from a punt, which it should seem is a serious reflection on a barbel angler, and was indignantly denied by the latter gentleman, who declared that the punt is simply taken for convenience, and in order that the fish, when caught, might be preserved alive, though it was admitted that Mr. Jardine had tried his luck from the punt. The jury rendered verdict for the plaintiff for 20 shillings, and his lordship certified for cost.

FISHING EXTRAORDINARY.—The *Burlington Hawkeye* makes some one on this:

All the large fish are not caught in the eastern waters. The other day Mr. Isaac C. Herron, Agency avenue, this city, was angling for the finny inhabitants of the limpid Mississippi up in Judge Simpson's fishing grounds, above Oquawka. He was fishing with a hand-line and had met only with moderate success until about 11 o'clock in the morning, when the line was seized and ran out with such violent rapidity that it set one of the wooden rowlocks, around which it had taken a turn, on fire. In his efforts to extinguish the flames and capture the fish, Mr. Herron upset the boat and was thrown into deep water. The line was tangled about one of his legs, which seriously impeded him in his efforts to regain the boat and right it. Fortunately, he managed to get hold of an oar, which assisted him in keeping his head over water. The fish meanwhile was rapidly towing him out into the river, and Mr. Herron, now thoroughly frightened, gave up all hope of securing it, and bent only on saving himself, shouted lustily for help, for he was utterly unable to break the line. His cries for help attracted the attention of some raftmen, who immediately manned a boat and started to the rescue of the unfortunate man, whose condition was now of extreme peril. The fish, however, rapidly towed his almost exhausted victim over to the Iowa shore before the raftmen could reach him, pulled him up on the bank, ran into the woods with him, climbed a tree and hauled Mr. Herron up after it, and was just on the point of cutting his throat with his dorsal fin, when the limb on which they were seated broke and precipitated them both to the ground, where the raftmen, who had just come up, killed the fish with boat hooks. It proved to be what is known as a "channel catfish," and weighed, when dressed, a pound and a half, and was nearly five inches long. Mr. Herron, although bruised and exhausted by his fright and rough handling, is not seriously injured, and is able to be about as usual.

SHEEPS HEAD FISHING.—From Little Egg Harbor Inlet up through the several channels of the bay will be found the best sheeps head fishing on the coast of South Jersey. For many years I have been an annual visitor, with varied luck. I have taken from one to eighteen of these fine fellows in a reasonable portion of a day, and have seen nearly thirteen hundred pounds from one day's catch with the ordinary hand line. This is fine sport for the amateur, and the hard working fisherman finds a ready market at fair prices for his catch. This game fishing, if pursued as at present cannot last long. During my visit in July the several channels have been swept with a seine, and hundreds of fish taken. I have been informed that \$175 was realized from a single haul. The Game Society of New Jersey could not perform a better act than to have a law passed by the legislature for their protection. These fish are not native, but annual visitors to these inlets and bays, feeding on the black mussels which are so abundant, and imparting both fat and flavor to the fish. In September or early October when they leave, they are in the finest condition.

J. G.

A SHAD QUESTION.—Crossing the Barclay street ferry from Hoboken to New York, Aug. 14th, I noticed the eud of the pier at the foot of Vesey street covered with boys fishing, and on landing went around to note the result.

There were fifteen boys of all sizes and ages, showing, however, but little variation in degrees of filthiness, armed with broom-handles, short sticks and barrel-hoops in lieu of rods, while the lines were generally of cotton wrapping twine or linen thread, while the bait in each case was clam. The total catch at 11 A. M. was two shad and a bluefish. One shad measured five inches and seven-eighths and the other a trifle less. The bluefish (*Pomatomus saltatrix*) was smaller. The question that arose was, how old were these shad? Certainly very small for fourteen months, and too large and far down stream for two months.

The boys called them "shiners," and said they often caught plenty, and they ran about that size—never larger.

FRED MATHER.

PREACHING AND ITS EFFECTS.—Not long since a preacher of our acquaintance described a pond in which he had seen many fine fish, and brought it into an illustration in one of his discourses. On the following Sabbath morning six deacons were missing from their pews, but when the pastor took a stroll after service, he saw the absent six sitting on the verdant bank of that identical pond, and half a dozen corks were bobbing on the surface of that stream.—*New York Dispatch*.

MASSACHUSETTS.—Salem, Aug. 3.—Hiram Langford and his crew to-day captured a horse mackerel weighing 850 pounds.

MOVEMENTS OF THE FISHING FLEET.—The number of fishing arrivals at Gloucester the past week has been 94—20 from the Banks, 44 from Georges and 30 from mackereling trips. The receipts of halibut have been large, 600,000 lbs. from the Banks, 14,000 lbs. from Georges, and prices have ruled low, most of the furs selling at 1 1/2 cts. per lb. The receipts of codfish have been 1,400,000 lbs. from the Banks, 500,000 from Georges; the demand is good for the season and prices well sustained. Mackerel have been in light receipt, some 800 bbis., mostly from Block Island, and have found a ready sale at fair prices.—*Cape Ann Advertiser*, Aug. 11.

CONNECTICUT.—New Haven, Aug. 13.—Bluefish are biting well, and the sport attracts great numbers of fishermen to the wharves and docks. Charles Rosenberg is the champion at present, with a usual daily catch of nearly one hundred.

Swain Rocks.—Dennis Upson, of Unionville, the other day shot a sturgeon which weighed one hundred pounds.

NEW YORK.—Kingston, Aug. 12.—On Tuesday last Geo. B. Styles, Chas. H. Styles and Edward W. Styles went fishing for black bass in the Walkkill, at Gardiner Station, W. V. Railroad, and caught twenty-two pounds of black bass, the largest of which weighed 3 1/2 lbs. John Dufon and Ed. Lowe caught fourteen pounds of bass the same day at the same place, the largest weighing 3 1/2 lbs.

A large catamount was shot in Mink Hollow, town of Woodstock, Ulster county, last Thursday by Albert Garrison, while attempting to carry off a pig from the pen.

OUR HARRY.

Glens Falls, N. Y.—A. N. Cheney, of Glens Falls, recently caught two of the largest Oswego bass in Long Pond ever taken in Warren County. The largest was twenty-two inches in length and weighed seven pounds and fourteen ounces. The other weighed six pounds and twelve ounces. The pond was stocked with six of these fish eleven years ago, and it is now well filled with their progeny.

Kingston, N. Y., Aug. 6.—Albert Carr went fishing in Roundout Creek last Monday, near Eddyville dam. He caught 23 pounds of catfish and bass; his largest cat weighed 3 1/2 pounds.

Doctor Husted has just returned from a trip among the Catskills, bringing three hundred of *Salmo fontinalis*. He reports trout fishing better than before for years.

OUR HARRY.

NEW JERSEY.—Kinsley's Ashley House, Barnegat Inlet, Aug. 4.—Constant castery storms all the week. No fishing worth reporting, except to-day. C. H. Scott, Philadelphia, 29 black and sea bass. Col. W. Evans, Holmsburg, Pa., 37 ditto. They are running good size.

Wagner House, Budd's Lake.—Seeing an account in your last number of a 5 1/2 lb. black bass, taken at Greenwood Lake, I am desirous to place on record the fact that on the 19th of July I hooked and landed a black bass 23 inches in length, 17 inches round the body and weighing 6 1/2 lbs. From July 10th to 31st I took from this lake 24 black bass, weighing 5 1/2 lbs. Mr. Allen, the veteran fisherman of this lake, has taken 40, and Mr. Charles Wagner has secured 13. For a small lake, fished to death in the winter and netted in the spring (as I am credibly informed), the fishing is excellent. When the bass are not "in the humor" there are plenty of pickerel and very large yellow perch. By the way, I struck a pickerel to-day with one of Marster's "Dobsons." The weights given are actual, not guessed at.

A. S. C.

Weakfish and sheepsheading are the piscatorial attractions of Barnegat Bay just now.

PENNSYLVANIA.—Maple Lodge, Pike County, August 4.—While trolling for bass in Jones Lake, on Saturday last, I saw quite a commotion in the water close along shore, and pulled the boat up for an inspection, when I found quite a large water snake had attempted to swallow a good sized catfish, and had proceeded as far in the process of absorption as the fish's horns, which, projecting on each side a distance of two inches, had effectually prevented the total engulphment of the "cattie." The fish was endeavoring to free itself, and the snake was making frantic efforts to escape. What the result would have been had I not put in an appearance and killed both, I could not say. Bass fishing has been excellent; during the month of July I took with the fly some forty, ranging from one to four pounds, and think they will rise to fly even better during this month (August). On the 19th of July I tried the trout on Dimon's Brook, and took fourteen very fine ones, the largest weighing one and three-quarters pounds, the whole crew sealing a little over nine pounds.

The editor of the Bucks County (Pa.)  *Gazette* says that it has been discovered that the jointed fishing pole was invented because one can't hide a long pole under his coat Sundays. He ought to know.

There is good black bass fishing near Leek Run and Shawsville.

ILLINOIS.—Rock Island, Aug. 10.—The warm weather of this season has driven many families from their hot, dusty homes in the city to a more pleasant abode on some of the islands in Rock River. At Milan, three miles south of this city, are a number of small islands, which furnish a most delightful camping ground, and the tents that dot them here and there show that many persons appreciate the cool, refreshing breeze and beautiful lawns that are offered. Various kinds of fish are quite plenty in the stream and can be purchased at the markets at the following prices: eels, 25 cents per pound; salmon, 15 cents; pike, bass, striped bass, croppies, sunfish, 12 1/2 cents; perch, catfish, 10 cents; buffalo, 8 cents; suckers, bluefish, carp, sturgeon, 8 cents. Turtles are plenty at 12 1/2 cents. The above prices are for fish dressed. They are sold from the nets, at from 3 to 5 cents less per pound.

D. B. K.

MICHIGAN.—Detroit, Aug. 11.—Gaff Steuton, of this city, took a trip to St. Clair Flats on the 6th inst., and made a string of 65 black bass. Bogardus, of Ypsilanti, was at the same place on the 6th inst., and made a string of 24 black bass and 2 pickerel. The pickerel weigh 10 pounds each. Albert Hill and E. W. Reynolds took a trip down the river to Fighting Island for a day's fishing on the 10th inst., and made a string of 20 black bass and 11 pike; one bass weighed 6 1/2 pounds, and one of the pike weighed 8 pounds. Eugene Robinson, Jesse E. Saxton, Wm. Livingston and A. Downey returned Aug. 4 from a three days' sport with rod and line with 758 pounds of fish; the collection comprised black bass, rock bass, maskelonge, etc. Messrs Hale, of Chicago, Ill.; Hastings, of New York; Smith, Brow, McPherson and Rogers, of this city, returned Aug. 7th from a three days' fishing cruise at St. Clair Flats, with 158 fish, black bass, rock bass, etc.

ROVER.

H. T. Phillips, E. W. Reynolds and Joseph Baker were out on a fishing excursion, and made a string of 13 black bass, 7 pike and nearly a wagon-load of perch, etc.

ROVER.] ]

MISSOURI.—Cape Girardeau, Aug. 5.—You in the East have the advantage of us out West in fishing—that is, trout and bass fishing—but when it comes to catfish we discount you. We often catch cats weighing from 50 to 150 pounds. A few years ago I was on a visit to some friends in Mercer county, Ill. There was a small stream close by called Edwards River, but in reality nothing more than a small creek, in which were some very deep holes, and abundantly supplied with the finny tribe, mostly sunfish and yellow bass. Our bait was angle-worms, and after capturing a goodly number, I noticed my cork suddenly disappearing, and on landing my prize, found three fish on one hook—first a sunfish, who had swallowed the hook, then a bass that had gobbled the sunfish, and last a pike who had stuck its jaws into the bass. It's a tough story, but it is a fact, nevertheless.

J. B. C.

WISCONSIN.—Ashland, Aug. 4.—Capt. T. J. Falls, of your city, who has been to the upper waters of the White River on a fishing trip, reports the fish there abundant and very gamey. Large party off for the Nepona River to-day. They go as guests of John O'Malley, and are to be absent ten days.

M.

CALIFORNIA.—Last week, Allen L. Luce, of Monterey, in company with Charlie Wornes, fisherman in the headwaters of the Little Sur, caught 428 trout in three hours, 100 of the fish being over ten inches long.—*Pacific Life*, July 28.

FLORIDA.—New Smyrna, Aug. 11.—Bass and grouper in abundance at the Inlet. A steamer from this port to Fernandina, via St. Augustine, is to be put on the line in November.

G. J. A.

PRINCE EDWARDS ISLAND.—Summerside, Aug. 6.—Mackerel fishing is now going on vigorously in the Bay quite near this delightful seaside hotel, and full baskets of trout are taken every day in Dunk's River, a few miles distant. These sports, coupled with plover shooting, fine sea bathing, and the bright smiles of the "summer-side belles," make old time pass away pleasantly. No blues here.

STANSTEAD.

SPLIT BAMBOO RODS.

To Our Customers and the Public: In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

[Ado.

HOW HE MARRIED.—A clergyman, a widower, recently created quite a sensation in his household, which consisted of seven grown-up daughters. The reverend gentleman was absent from home for a number of days, visiting in an adjoining county. The daughters received a letter from their father, which stated that he "had married a widow with six sprightly children," and that he might be expected home at a certain time. The effect of that news was a shock to the happy family. The girls, noted for their meekness and amiable temperaments, seemed another set of beings; there were weeping and wailing and tearing of hair, and all manner of naughty things said. The tidy home was neglected, and when the day of arrival came, the house was anything but inviting. At last the Rev. Mr. X— came, but he was alone. He greeted his daughters as usual, and as he viewed the neglected apartments, there was a merry twinkle in his eye. The daughters were nervous and evidently anxious. At last the eldest daughter mustered courage, "Where is our mother?"

"In heaven," said the good man.

"But where is the widow with six children whom you wrote you had married?"

"Why, I married her to another man, my dears," he replied, delighted at the success of his joke.—*Detroit Post*.

A MODEL PUNCH BOWL.—At a banquet given in Ishpeming Michigan, recently, there was a huge punch-bowl on one of the tables, four feet in diameter and three feet high, carved out of ice. Although the weather was very warm, it lasted the evening through.

Yachting and Boating.

HIGH WATER FOR THE WEEK.

Table with columns: Date, Boston, New York, Charleston. Rows for Aug. 17, 18, 19, 20, 21, 22, 23.

BOAT AND YACHT BUILDING.—Errata.—First paper, first column, 24th line, for "level," read "bevel;" 26th line, read "Next saw the side-boards to the length determined on for boat."

Second paper, first column, 18th line, for "level" read "bevel." Place a period after the word bevel, and read: "At the bow, the sideboards can be sawed to the same level, or the stem can be left straight."

On the 9th line from top of second column, for "stem," read "stem." This last error is the funniest imaginable; a "double sterned" boat being the "sternest" joke of the season.

NEW ROWING ASSOCIATION.—The election of Detroit as the point for holding the National Rowing Association Regatta, this year, has determined the withdrawal from that Association of a large number of Eastern clubs.

FAST TIME THROUGH A FLUME.—A correspondent of the Philadelphia Herald sends an account of the perilous journey down the mountains of two Nevada miners, who made the trip in a mining-flume.

NEW YORK YACHT CLUB.—The following boats of this club started on the annual cruise last Thursday: Schooners Restless, Wanderer, Dreadnaught, Columbia, Rambler, Estelle, Tidal Wave, Madeleine, Nettie, Idler, Clio, Tempest and Nereid, Vesta and Clytie; and the sloops Vision, Vixen, Windward, Volante and Active.

MASSACHUSETTS.—Scaupscott, Aug. 11.—The Union Regatta under the auspices of the Beverly Yacht Club, which had been long postponed, was sailed under most favorable circumstances, as above, at noon.

MASSACHUSETTS.—Scaupscott, Aug. 11.—The Union Regatta under the auspices of the Beverly Yacht Club, which had been long postponed, was sailed under most favorable circumstances, as above, at noon.

Table with columns: Name, Actual time, Cor. time, Name, Actual time, Cor. time. Rows for Magic, Lillie, Hermer, Carver.

Table with columns: Name, Time. Rows for Reilo, Nattie, Georgietta, Secret, Alga, Huelin, Ibis, Mystery, Peri, Water Lily, Ida, Nellie M., Maud, Lizzie, Mazzeppa.

Table with columns: Name, Time. Rows for Red Lion, Bessie, Edith, Druid, Nora, Bluebell, Rose.

—The race between Hosmer and Driscoll, on the Charles River, was awarded by the referee to Hosmer; Driscoll broke an oar at the seventh stroke.

LAKEMAN BOAT CLUB.—Boston, Aug. 2.—The annual regatta of this club was rowed over a course from Commercial wharf around Buoy 11 and return.

—A single scull race for \$100 a side, between Geo. Hosmer, of Boston, and J. E. Brown, of Worcester, was rowed on Lake Quansigamond, Worcester, Mass., August 2.

NADARSET YACHT CLUB.—The second regatta of this club was sailed off Nahant, Mass., Saturday, Aug. 4. The courses were: Second and third classes, seven miles each; fourth class, three miles.

Table with columns: Name, Cor. Time, Name, Cor. Time. Rows for Pearl, Water Lily, Bessie, Rose, Avis, Lily.

NEWPORT YACHT CLUB.—Newport, Aug. 8.—Handicap race: Distance, 17 miles, silver prize; presented by S. F. Pratt, of Boston.

Table with columns: Name, Started, Arrived. Rows for Lillian, Dove, Grant, Fidget, Wanderer.

—The Dart therefore won by a minute, although the Fidget went over the course in 1m. 38s. less than she did.

VA.—Norfolk.—On the 4th inst. we had an extremely interesting cat-boat race in Hampton Roads, for possession of a handsome cup presented by H. Phoebus, proprietor of the Hygeia Hotel, at Old Point Comfort.

Table with columns: Name, Actual Time, Cor. Time, Name, Actual Time, Cor. Time. Rows for Nettie R., Little Fraud, Mist, Grace, Grant, Wanderer.

—Gen. B. F. Butler, with his famous yacht America, is cruising on the Canadian waters.

—David Carl, of City Island, is building for Mr. William Astor a schooner yacht, which is to cost \$250,000.

—One of the Indian canoes at Mt. Desert, Me., this summer, has been puzzling the guests by the mystic legend inscribed on its prow, "Pas de Dieu Rhone que nous." The plain English of this is "Paddle your own canoe."

—The second single-scull handicap race of the Palisade Boat Club, Yonkers, N. Y., was rowed Aug. 6. The entries were S. J. Lee, 105, R. G. Jackson and A. Moffat, scratch. Won by Lee in 10m. 25s.

—John Morrissey has offered a purse of \$500 for a scull race to take place on Saratoga Lake, Aug. 28. The conditions are: Distance, three miles, with a turn; open to all; entrance fee, \$10, to be added to stake, and all to go to the winner.

PALISADE BOAT CLUB.—The second handicap single-scull race of the series for the gold medal, came off at Yonkers, Aug. 6. Distance, one and three-quarters miles. The entries were S. S. Lee, two seconds; R. G. Jackson and A. Moffat, scratch. Lee won in 10m. 21s.

—The annual regatta of the Palisade Boat Club takes place to-morrow afternoon.

HALIFAX, N. S., Aug. 7.—The scull race for the championship of Halifax Harbor was won by Warren Smith, his only opponent being John Nicolson.

National Pastimes.

CRICKET.

COLUMBIA VS. MANHATTAN Prospect Park, Brooklyn, Aug. 10. The scores were as follows:

Table with columns: Name, Runs, Name, Runs. Rows for Cuddley, McCloskey, Gregory, O'Sullivan, Atkinson, Brown, Carey, O'Toole, Pasch, Moorey, Byles, Total.

Table with columns: Name, Runs, Name, Runs. Rows for Love, Scott, Jeph, Jones, Jeph, Cannel, J. Tucker, O'Toole, Smith, Byles, Total.

STATEN ISLAND VS. ST. GEORGE'S—Hoboken, Aug. 11.—Summary:

Table with columns: Name, Runs, Name, Runs. Rows for G. Giles, S. B. Moore, J. B. Casiman, A. Marsh, F. Franklin, W. O. McDonald, J. P. Conover, A. Rendell, B. M. Westfield, G. B. Hitchcock, Leg-byes, Total.

Table with columns: Name, Runs, Name, Runs. Rows for J. R. Moore, A. Harvey, J. B. Whetnam, W. M. Kessler, W. M. Donald, W. Brewster, C. T. Jarvis, H. Eyre, Total.

GALT VS. HAYSVILLE AND BERLIN—Galt, Canada, Aug. 3.—Won by Galt, by 1 inning and 29 runs.

PARIS VS. BEAVER—Norwich, Ont., Aug. 6.—The game resulted in a tie.

SCOTTISH-AMERICAN ATHLETIC SPORTS—New York, Aug. 11.—The second series of handicap games, held at club grounds. Prizes, silver medals. Summary:

Four hundred-and-forty-yards run in heats—First heat won by E. C. Smith in 58s., with 50 yds. handicap; second heat won by T. H. Smith in 61s., with 30 yds. handicap; third heat won by H. B. Wilson in 58s., with 35 yds. handicap; final heat won by Smith—won in 58s.

—Vaulting with pole—J. B. Hanna won on 7 ft. 10 in., with handicap of 13 in.

—Three-mile walk—Seven entries; won by J. V. Woolcott in 26m. 11s., with 40s. handicap.

BOSTON, Aug. 7.—A foot race of 150 yards, between James Dwyer, of Boston, and Charles Drap, of Northboro, for \$300, resulted in a victory for Dwyer, who won by about three feet Time, 15½s.

A LITTLE GIRL'S BIG SWIM.—Lillie Grant, a little girl, eight years old, swam, on Aug. 2, from Ward's Island dock across the Harlem River to the bath house at the foot of 114th street, N. Y. City., a distance, making allowance for the current taken, of about three-quarters of a mile.

GLASS BALL TRAPS.—In your last issue I notice several reports of glass ball shoots throughout the country, and am pleased to see that the Republic and Atho Clubs, at Attica, O., made good scores shooting from my traps and rules, breaking 10 per cent. of the balls shot at. This I consider No. 1 shooting.

—N. B.—New York, Aug. 13, 17. To Managers of Shooting Clubs an State and County Fair Associations: I am prepared to make arrangements to shoot exhibition matches at shooting tournaments or fairs, to break 300 glass balls in thirty consecutive minutes, or 500 in fifty minutes, ball to be sprung from my pat. glass ball trap in any exhibition match. I will bet \$20 to \$100, or \$1,000 to \$500 that no man in the world can do what I can. Terms \$30 to \$50, according to distance to travel. Letters addressed to B. Kears, 711., will be forwarded, if not at home. —Lillie.

—A. H. BOGARDES.

Answers to Correspondents.

No Notice Taken of Anonymous Communications.

DAUPHIN, Dauphin Co., Pa.—A typographical error.

E. W. B., Cleveland, Ohio.—Will a .32 cal. long cartridge, explosive bullet, kill a 'gator? Ans. Yes, if aimed properly.

JOHN, Hornellsville.—There have been several rose-throated grosbeaks shot here lately. Are they not a rare bird in this vicinity? Ans. Yes.

OUR HARRY, Kingston.—Send us your name and address, if you desire us to publish your items. We do not accept anonymous communications.

E. J. R., Wethersfield, Conn.—You should know that it would be highly improper for us to make a distinction of any one's wares, unless they were absolutely valueless.

J. M. D., Irwin Station, Pa.—Is the Pigeon Starter or Mechanical Cat a good article for what it is recommended? Ans. It is said to answer an excellent purpose.

O. T. T., Millbrook, N. Y.—Please note the questions at the head of the Kennel column, and govern yourself accordingly. Your description is too meagre to judge from.

MARKS, Waukegan, Ill.—Ans. We answered the question correctly. We care not what Chicago may do; right is right. Class shooting is one thing and shooting another. See answer to D. in this column.

J. BISHOP, Petrolia, Pa.—Please inform me where I can procure "Thornburn on Mushrooms," referred to in your paper of recent date. I have tried to get it and have failed. Ans. Through Estes & Lauriat, of Boston.

J. H. O., Columbia, S. C.—Please inform me as to the length of the spikes in Von Culin's collar? Want to try it on a young pointer; also, if said spikes are very sharp? Ans. You can have a collar made with any length of spike, and as sharp as you choose.

J. A. B.—We have nothing to do with the pedigree list, and shall not probably publish another. We have repeatedly stated in these columns that the matter of registration is now in the hands of L. L. Smith, Strathroy, Ontario.

Geo. A. E., North Brookfield, Mass.—Do you think that a glass-bait trap could be made to feed itself, and be reset at the owner's stand? Ans. We have no doubt but that Yankee ingenuity will fill the bill, if there proves to be sufficient money in it.

M., New Haven.—Do you recommend the artificial bloomer, Dobson, alligator, scorpion crab, hooker, hellgrammite, crawler, or whatever you call it, for black bass bait? It will be received gratefully by fishermen, if it will do as well as the natural one. Ans. The proof of the pudding is in the eating. Try it.

W. P., Madison, N. J.—Can you inform me of some small place in Maryland on the Bay where good quail-shooting can be had, and also ducks, and the name of a resident to whom I could write. Ans. Go to S. Sattions, Perrymanville, Magnolia Co. The "Sportsman's Gazetteer" would give you all this information. For good quail-shooting go to Frederick.

ANTLER, South Bend, Ark.—Which of the following named rifles would be preferable for hunting, Winchester repeating, or Sharps sporting rifle? Ans. We have repeatedly stated through these columns that we cannot discriminate between manufacturers. We cannot give the address you desire.

R. T. C. S., Carville, Pa.—Where can I find good bear and deer hunting the nearest point from Pittsburgh, and the best time to go? Ans. October is a good time to go, and the Hov Wilderness and the Blackwater river, in West Virginia, is a good objective point. See Hallock's "Sportsman's Gazetteer."

D. W., Portland, Me.—Will you please inform me what "Stuart's tackle" is? Is it better for bait fishing or trout than single hook? Of what size hooks is the tackle made? Ans. We do not know the article. The oldest dealer in the city never heard of it. Have you not made a mistake?

C. JOLLY, Phila.—1. Please inform me what kind of fishing is to be had at Butterton? 2. Also what a boat to accommodate two would cost for a couple of days? 3. And will Bay bird shooting be good there the latter end of this month? Ans. 1. Butterton is a great place for deep-sea perch fishing. Dipsays are used. 2. Man and boat will cost about \$6 per day. 3. Probably in that neighborhood.

D. M., St. Dennis P. O., Md.—1. Please inform me if I am too late to obtain one of those \$5 rifles advertised in your July 5th number. 2. Are they tolerably accurate? 3. Is there no danger of their bursting? 4. If I cannot obtain one of them, where can I obtain a good, cheap, muzzle-loading rifle, and for what? Ans. We do not recommend the \$5 rifle. 2. It is the old Star carbine. 3. Take your chances. 4. At any reliable gun store.

B. S. S., Goshen.—In a sweepstake shoot A shoots 10 balls, B 9, C 9, and D 5. They don't shoot off, but divide the money—three prizes. How is the money divided? Ans. A takes first money, B and C take second and third. Except in class shooting the highest scores win; in the latter case D would take third money, and B and C divide second.

O. C. A., Woonsocket R. I.—I have a setter dog one year old. He has been sick with the distemper; has got about over it; looks and eats well, but can hardly walk. Can you tell me what to do for him, or shall I have to kill him? Ans. Give 3/4 teaspoonful doses of Caswell, Hazard & Co.'s exir of calasaya, iron and strychnine every four hours and feed well.

E. B. B., Hudson, Ohio.—Will you please give me the amount of arsenic for a puppy seven weeks old? I have the powders, but am afraid to give them. Ans. It would be highly improper to use it at all, least of all with young puppies, as it acts by creating a violent inflammation of the bowels; moreover, there is little likelihood that animals of that age need anything of the kind.

READER, Auburn, N. Y.—Will you please inform the sporting men of this vicinity whether a woodcock can be scared to death or not? The other day while out shooting with a friend who put up a cock and furd at it and the bird fell dead. Upon a careful examination we could not find a mark on it although we plucked every feather from it. The bird was in good condition and an old one. Ans. The bird was killed by the "wind" of the shot probably.

ADIRONDACKS, U. S. Treasury, New York.—1. Is the trout fishing in the Adirondacks lakes good at present time? 2. What lakes would you recommend as the best water for the above fishing? 3. Which is the best way of getting there? 4. What is the charge per day for board, and how much for guide? 5. What is the expense of getting there? 6. Do the trout take the fly at present? Ans. 1. Yes. 2. There are plenty of good lakes; we have not space to describe the different points or modes of getting there. 4. The average per day is \$2 for board and \$3 for guides. 5. The expense varies with the region you desire to visit. 6. Yes.

O. H. M., Greenpoint, N. Y.—The information you desire regarding dogs will be found in Hallock's "Sportsman's Gazetteer." Price \$3, for sale at this office. 2. Oh, ask the young lady for her company by all means, and cut the other fellow out, if you are able.

A. M. C., Detroit, Mich.—The new dog-tax law of Michigan provides for a tax of \$1 on each male dog over six months old, and \$3 on each female dog. No action under the law can be taken this year, however, as it has no force until the 21st of August, and as it requires the assessors of every township to make out a list of dogs for taxation on or before May 15 of each year.

Geo. McC., New York.—A party of four gentlemen desire to go up in Pike County, Pa., in September, to camp out; would like to locate near some lake, where we can have hunting and fishing. Can you advise us where to go? Ans. Write to J. A. Williamson, Lackawanna, Pike County, Pa., and he will pick out a camping ground for you. The "Sportsman's Gazetteer" will give you all other information.

SCALES, Niantic, Conn.—Can you inform me if a law has been passed in this State, prohibiting the catching of trout for the next three years? I have been informed that such is the case. Is there any law regarding the setting of nets along the harbors? If not, then certainly ought to be, for the fishing is almost spoiled by them. Ans. The law you mention refers to "salmon or grise, or fry thereof." Brook trout may be taken from the 15th of April to the 1st of July only. 2. We regret to say there is not.

A. W. T., Orangeville, Ohio.—We have a small stream here called Pyramating that has a great many trout bass. Can see hundreds of them when the water is low. Have tried ever since the first of July to take some of them with minnows, artificial flies, soft shell crabs, also with red flannel after night, but in vain. They all fall. If you can prescribe a medicine for them you will convey a great favor upon your humble servant. Ans. Try the Dobson bait.

D. R. C., North East, Pa.—What is your opinion as to the profitability of herding in Western Texas with a moderate capital of say \$5,000 to \$10,000, as compared with the same amount of capital invested in say ordinary farming in Illinois or Kansas? Ans. The money properly invested in cattle should return a good dividend, and should also be invested in a good farm in Kansas, "barren" the grasshoppers. Many in both Texas and Kansas herd cattle, as well as carry on farming.

REX, Washington, D. C.—Will you please give me a receipt for mange in a dog? I have a very nice pointer that has had it for about seven months. Ans. The word mange covers "a multitude of sins," being applied indiscriminately to some forty or fifty diseases of the skin to which dogs are liable. Describe symptoms, appearances, etc., as given in the note at the head of the Kennel column, and we will prescribe.

E. P. E., Cincinnati.—I have a pointer dog which I keep in the city; he necessarily becomes very dirty from the soot which collects on him. I desire to ask you if it would do him any harm to have him washed once or twice a week? If you think it would not do him any damage what kind of soap would you recommend, also warm or cold water? Ans. Wash him by all means; if every day all the better, using tepid water and Castile soap. Give him a race after drying him well with a cloth.

SHEPHERD, Lynn.—1. Can a muzzle-loading gun be bored so as to shoot close at say 40 yards. 2. If bored will it not want a larger wad than before? 3. Would it reduce the strength of the barrels? 4. Where is a good place in Boston to have it done, and what would you estimate the cost? Ans. 1. Yes, slightly. 3. Necessarily it would some what. 4. Wm. R. Schaefer, 61 Elm St., or Wm. Read & Sons, 13 Faneuil Hall Square.

D., Buffalo, N. Y.—A, B, C and D get up a shoot at 5 birds each, class shooting; 1/4 entrance; five per cent. to first, thirty per cent. to second, twenty per cent. to third. A, B and C each kill four; D kills one. A, B and C shoot off at three each; A and B kill three; C kills two. A and B shoot off again. A kills three; B two. How is the money to be divided? Ans. A takes first money; D second. There is no third class.

JOHN V. B., Dresden.—I see through your paper that some of your correspondents mentioned the name of the Gascon hound. If you know anything of the qualities of the dog I wish you would be so kind as to give me some information of his superior traits. Do you think he would make a good fox dog? Ans. The Gascon hounds are used almost exclusively for wolf-hunting. They would not make good fox dogs.

W., Peekskill, N. Y.—My setter bitch has the mange slightly, showing itself in patches on the point of the elbow and on the outside of the forelegs; has been so several weeks. What shall I give her that will not injure her puppies? As she has a litter about a week old. Ans. Use Juniper Tar Soap (Hazard & Caswell's) to wash the animal with, and apply Black wash at night, with 2/3 dr. of Fluid Extract of Conium has been added to every half pint of wash. Give internally 3 drops of Donovan's solution, three times a day in water.

A. H. S., Marshall, Tex.—I wish to get one of Von Culin's spike collars. Please advise me through your answers to Correspondents as to whether they can be had in St. Louis, or anywhere nearer than the place of manufacture—whether they can be sent by mail, and oblige? Ans. They can be sent by mail, and are best procured of Von C. You mistake; we did not consider it good enough for Western sportsmen, but that it would fill the bill for a certain class.

CHUNGHEGROCK, North Manchester.—Will you be kind enough to give me your authority for your decision in answer to correspondent C. M., Goshen, in FOREST AND STREAM of Aug. 2, 1871, in regard to shooting off ties? It has always been customary, in all matches in this section, that those beaten in shooting off ties "to step down and out" and let the next highest score come in for the prize, otherwise second rate shooters would have no show in matches. Ans. Bogardus is authority for one. The highest score always wins, except in class shooting. In class shooting D would take third money.

PLUVIER, Boston.—How often should the locks of a shot gun be examined, if used two weeks at the sea-shore, and occasionally the rest of the year? 2. If a good idea, what substance is best to put round the rim of lock to keep out moisture? 3. Is it inadvisable to wipe out the barrels and cartridge-chambers with flour of emery, woodshades, etc., to remove discoloration? Ans. With proper care the locks need not be examined oftener than once a year, yet no harm will result from the inspection if they are removed in a careful manner. 2. Equal parts of Copal varnish and pure rubber gum dissolved in naphtha. 3. Kerosene oil is better than either.

O. H., Bay Ridge, L. I.—Can partridge be shot in September in Berkshire Co., Mass., lawfully? What kind of tackle shall I take for pike fishing in a reservoir in Cheshire, Berkshire Co., and what tackle for trout (flies or live bait)? Can I expect much sport in either hunting or fishing in this region? Ans. Ruffed grouse (partridge) may be lawfully killed after Sept. 1 in the region designated. Quail can only be hunted after Nov. 1. Trout cannot be killed after Oct. 1. 2. Trolling tackle will be best for pike. Frog, minnow or pork bait may be used. 3. For trout, either worms or live bait may be used. 4. You will probably meet with fair success.

C. G. G., Boston.—Ans. Good fishing and shooting may be had at Rangeley Lakes in Maine. Also at Farnschewe Lake at the head waters of Magalloway River. A correspondent writes that the streams are full of fish, trout having been caught that weighed ten pounds.

Deer, wild geese, ducks, partridges and quail are found in plenty. Full information may be had from Edward R. Lyon, of Bethel, Conn., H. L. Leonard, of Bangor, Me., can inform you regarding the present condition of the Resiggonice. All hunting implements, etc., can be taken into Canada without duty, if they are to be again returned to the States at the end of the trip. Particulars may be had and blank forms necessary at the U. S. Custom House, Boston.

Geo. W. KELLY, Providence, R. I.—Will you inform me of the changes in the game laws of Massachusetts? Ans. Woodcock or ruffed grouse can only be killed from the 1st of September to the 1st of January; quail from Nov. 1 to Jan. 1; ducks from Sept. 1 to April 15; upland plover, from July 15 to Jan. 1; deer, from Oct. 1 to Dec. 1; squirrels and hares, from Oct. 1 to Mar. 1. Traps, snares, nets, springs, batteries, swivel or pivot guns, etc., not allowed. Trout and land-locked salmon or lake trout may be taken by hook and line (but by no other means) between the 1st of April and the 1st of October each year. Black bass may be taken by hook and line (but by no other device) between the 1st of June and the 1st day of December following.

EUNOWNO, Fox Lake, Wis.—1. What extra charges must a man pay for bringing a sporting dog from Edinburgh, Scotland, to Milwaukee, Wisconsin? 2. What is the address of the most reliable breeder of setters in England or Scotland? 3. Which breed is preferable, Gordon setters, or Red Irish, for breeding purposes? Ans. From Liverpool, including Customs House fees, butcher's bill and brokerage, it will cost from \$25 to \$30. If more than one dog is imported, the butcher's bill and brokerage will be less. From Glasgow the fees would probably be much the same. 2. We cannot give you the address of the most reliable breeder; there are plenty of breeders that are reliable, however. 3. Both breeds have their friends, but usually the Gordon is preferred for retrieving purposes, though the Irishman is as good when thoroughly broken.

Geo. S. MAYER, Albany, N. Y.—Myself and friends anticipate going to the Lake Superior region some time next month for the purpose of fishing and hunting. Can you give us any information as to the best route, and about the expense, and what kind of fish and game? Ans. Go to Detroit, or Port Huron by rail, thence by Steamer to Ashland and Bayfield. Good fishing for speckled trout, and in the lake may be had salmon trout, black bass, etc. Ruffed, spruce and sharp-tailed grouse with the northern hare constitute the bulk of the game, though deer and bear may be found with labor. On the North Shore may be found the same game except Virginia deer, and by penetrating the forests, Moose, Caribou and Martigan are found. Brook trout in season are found on both shores. To go to North Shore, take boat at Windsor, or Port Sarnia, Ontario, Dominion line. Fare per boat about \$15 each way, or \$30 per round trip. Average hotel expenses \$2 per day. You can take boat at Buffalo for South Shore if you choose, or go to Toronto and Collingwood and get boat to North Shore.

R. G. L.—I have a very fine setter dog seventeen months old. Four months ago took the distemper and was very bad. I succeeded in curing him, but left him very poor, with a twitching or jerking of left hind leg; he did not gain any in flesh; fed him on beef tea, bread and milk, oat meal, boiled rice, etc.; discovered he was bad with worms; used coppers and wood ashes, saltonine, etc., with no effect; sent for powdered arcaua nut, advertised in your columns; first dose he passed four worms about eight inches long, one-half of each seemed to be in joints, large in middle and tapered to each end. The second dose given, I gave him two ounces of castor oil, and neither the arcaua nut nor oil seemed to have any effect on him; he is still poor and with a continuous twitching of leg. Appetite pretty good; eyes inflamed and spirits good; nose apparently all right; hunts well; finds and stands a woodcock like an old dog; keep him in a large, well-ventilated and clean stable. Please tell me what to do for him? Ans. Should think that the dog has tape worm. Give him Kosoon, 10 to 15 grains, as recommended in Hallock's Gazetteer.

ERMS, Newark, N. J.—1. Where can I see a complete file of Spirit of the Times, or any back numbers, say from 1838 to 1850? The files in the office of the Spirit have been lost. Would the Mercantile Library of New York have old copies? 2. When was the Esquimaux and Old Countryman published, and where could I find its files? 3. My pointer, though seemingly well, has small lumps all over him. Can they be ulcers, or are they like lumps on a child? The dog seems to be much troubled by flies, and these lumps, though not in any way sore, seem to itch and make his coat rough. Kindly suggest what is proper to rub him with. Ans. You would be as likely to find both the papers you refer to at the Library as anywhere, but believe complete files are not to be found. 3. The trouble with your pointer is doubtless either flies or fleas. Wash him occasionally with Caswell, Mack & Co.'s juniper tar soap, and when itching is severe ally with a solution of common cooking soda.

INGREBE, Troy.—My setter dog is troubled with a "breaking out" that first appears in little water blisters, and itches intensely. It is on his lips, around the rims of his eyes, with patches on his breast and on the inside of his forelegs. These parts seem slightly swollen, and the rash appears to be spreading. It is about two weeks since I first noticed it. He acts dumpy; his coat is rough and staring, as if he has some of his old hair on yet; he eats but little, and can keep nothing on his stomach. We feed him on table scraps, and he has exercised enough, having the whole run of a farm without being confined at all. Ans. Wash thoroughly with tepid water and Caswell, Mack & Co.'s Juniper tar soap, at least once each day. Apply also twice each day the following mixture: Powdered ex. borax, 1 dr.; chloroform, 2 drs.; glycerine, 4 drs.; rose water, q. s. t. make a half pint. Give internally a half teaspoonful of elixir of iodo-bromide of calcium three times a day. See that the bowels are regular, for which Prescription No. 8 A, Hallock's Sportsman Gazetteer will be best.

E. D. W., Dover, N. H.—1st. Is there a recruiting officer at Boston so I can enlist? What age, height, etc., do you have to be in order to enlist in the regular army? 2d. Please inform me how they decide the "League games" of base ball, who are champions as I noticed the St. Louis last week was reckoned ahead of Boston, and Boston had won two more games than St. Louis had? 3d. Is the coming rifle match for the winning of the Centennial Trophy? 4th. When does the law on partridges go out in New Hampshire, the 1st or 20th of Sept. 5th. To whom falls the power of selecting the Captain of American Rifle Team for 1877? 6th. I hear that there is going to be a base ball club in Hartford, Conn., next year, will the Hartforders of Brooklyn play next year if that is the case? 7th. Will Mr. Hallock write any items for FOREST AND STREAM while on his visit to the west? Ans. 1st. If there is no recruiting officer you can enlist at the forts in the harbor. Eighteen years of age, five feet four inches is the lowest standard. 2d. The club that is ahead when the specified number of matches is played is the champion. 3d. Yes. 4th. Sept. 1st, 5th. The team itself. 6th. Cannot say. 7th. Probably; there was a note last week from him.

—Undoubtedly one of the best and cheapest stocks of Carpentries, Oil-cloths, Matings, etc., to be found in the United States is that of Messrs. JOHN H. PRAY, SONS & CO., Washington street, Boston. I. W. Adams is the sportsman of the firm, and will take special pains to please any of our friends calling upon him or with any orders sent him. It is a good, reliable house.—[Advt.]



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INCLUSION IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.  
[POST OFFICE BOX 2882.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible. No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, AUGUST 16, 1877.

To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS, S. H. TURRILL, Chicago,  
Business Manager. Western Manager.

CALENDAR OF EVENTS FOR THE COMING WEEK.

*Friday, Aug. 17.*—Trotting: Lowell, Mass.; Warwick, N. Y.; Mendota, Ill. Running meeting at Saratoga. Base ball: Cincinnati vs Hartford, at Brooklyn; Louisville vs Boston, at Boston; Monticello vs Nohay, at Astoria, I. I.; Ottumwa vs Remington, at Davenport, Ia.; Stowe vs Haymaker, at New Haven, Conn.; Arlington vs Alaska, at West Brighton; Hornell vs Dansville, at Hornellsville, N. Y.; Columbia vs Active, at Jersey City; Indianapolis vs Allegheny, at Allegheny, Pa.; Rochester vs Star of Syracuse, at Rochester. Regattas: Pallisade Club; Northwestern Amateur Rowing Association, at Detroit, Mich. Creedmoor: Infantry, 1st Brigade, 1st Division. Cricket: Ottawa vs Toronto, at Ottawa. Pigeon match: Philadelphia and Narragansett Gun Clubs, at Newport.

*Saturday, Aug. 18.*—Running meeting at Saratoga. Base ball: Cincinnati vs Hartford, at Brooklyn; Louisville vs Boston, at Boston; St. Louis vs Chicago, at Chicago; Stowe vs Jefferson of Hartford, at Meriden; Arlington vs Noisy, at Stapleton, S. I.; Everett vs Seneca, at Greenville; Nameless vs Hudson, at Brooklyn; Orange vs Chelsea, at Orange, N. J.; Indianapolis vs Allegheny, as above. Creedmoor: Fourth comp. for Parker Shot Gun; Seventh Regt. Rifle Club Comp. for Sharp's Special Military Rifle. Cricket as above. Regattas: New Rochelle Yacht Club; Northwestern Ass. as above.

*Monday, Aug. 20.*—Running meeting at Saratoga. Base ball: Rochester vs Tecumseh, at Rochester. Creedmoor: Infantry; 2d Brigade, 1st Division. Athletic games of Philadelphia Caledonian Gun Club.

*Tuesday, Aug. 21.*—Trotting: Chatham Village, N. Y.; Earlville, Ill.; Poughkeepsie, N. Y.; Pittsburg, Pa. Running meeting at Saratoga. Base ball: Cincinnati vs Boston, at Boston; Louisville vs Hartford, at Greenville. Creedmoor: Cavalry; Contest for the Washington Grey's prize medal; comp. for Kent glass. Regatta of Beverly Yacht Club.

*Wednesday, Aug. 22.*—Trotting as above; also at Meadville, Pa. Running meeting at Saratoga. Creedmoor: Practice. Union Regatta at Cotuit Port, Mass.

*Thursday, Aug. 23.*—Trotting as above. Running meeting at Saratoga. Base ball: Cincinnati vs Boston, at Boston; Louisville vs Hartford, at Brooklyn; Rochester vs Star of Syracuse, at Rochester. Creedmoor: Third Brigade, 1st Division. Regatta of Rockaway Yacht Club.

**BOGARDUS' SCORE BOOK.**—This is a neat little work of eighty pages, of a size handy for the pocket, and is invaluable to the trap shooter, whether amateur or professional; it may also be used as a score book for field sports. The fact that Capt. A. H. Bogardus is the author, is sufficient evidence that the work is complete.

**THE SPORTSMAN'S GAZETTER.**—I have been more than pleased with the Gazette, and don't know how we have kept house so long without it. I am constantly referring to it for information concerning fishes that previously I had to search a whole library for. Very truly yours,  
FRED MATHER.

FIELD SPORTS.

WHAT is there so fascinating about Field Sports that its lovers will travel thousands of miles, spend thousands of dollars, endure torrid heat and frigid cold, run risks that seem almost foolhardy, scale mountains, shoot rapids, cross arid deserts, thread trackless forests, and do a thousand other monstrous things to indulge their ruling passion?

The above question is often asked by those who know not the joys of a sportsman's life and with some shadow of reason, perhaps, when we consider how little is known outside the fraternity of the hidden thrills and nerve stimulating forces bound up in those simple instruments, the rod and gun.

Man is born with certain physical and moral attributes and instincts, and the exercise of these is just and right. He has facial muscles, he cannot laugh without facial muscles, ergo, it is right for man to laugh. And so on indefinitely, taking up each sense and attribute in order, the same rule will apply. And when we reach his higher and more spiritual nature, we find him still following out his instincts—doing right when he follows them squarely, doing wrong when he flings them aside and becomes bound up in self and worldly gettings.

When childhood and youth are past, and we look back through the vista of years, and in the joys of retrospection become for the nonce a child again, how sharp the pang when, the bright day-dream over, we find that we are old, our youth and freshness gone, and nothing left but stern reality. Then what would we not give for one hour of that merry, care-free childhood? What would we not give to be as innocent and joyous as in those halcyon days when we saw but the rose, and had not, as now, discovered the stinging thorn?

But "We may be happy yet." There is a remedy for all this. Every man, who is a man, and appreciates the workings of his better self, has but to follow that instinctive love for nature which is surely in his heart, developed more or less, to find a certain sure relief that will bring him nearer to that childlike innocence and happiness for which he has so often longed.

These men who spend their time and money so lavishly have found this out. They know they get returns on the investment a "hundred fold."

Ask youder gray-haired veteran busy with leaders and fly books, his face lit up with an enthusiasm almost boyish in its perfect happiness, if it pays him to leave his business in the hands of others for a four-weeks' sojourn at Rangeley? He will tell you "Aye, a thousand times aye," and like as not add: "The only time I really live is when I am whipping a trout stream during my vacation. Why, my dear sir, if on some fine June morning I should get a heavy strike, and, realizing the fact that a six-pound trout was appealing to all my skill as an angler to effect his capture—if at this juncture I should receive a telegram stating that my warehouse and all its contents had been destroyed by fire, I would respectfully say to the messenger: 'I will see you again,' and go on and catch my fish."

There is something ecstatic in the *feel* when a trout strikes. It cannot be explained; it is a mystery, a tingling, scintillating, nerve-tensive mystery, and so fascinating that the trout angler looks upon his sport as the height of earthly happiness. And well he may, for when is a man happier than when arrayed in his old clo' and holy fishing boots, with rod in hand sauntering along some favorite stream? Blue sky, pure air and sparkling water, blessed trio, the angler's beatitudes; how they build him up and add years to his life! With what a zest he takes hold of his business when he returns. Problems that once seemed beyond mortal ken to solve are now as clear as noonday. Perplexing business matters once so intricate as to defy his utmost ability to unravel, now arrange themselves in perfect order. In a word, from the listless, morbid being of a month ago, he has been metamorphosed into a stirring, active business man.

"A fool and his money are soon parted." So says the "base and soulless worldling," when he hears of some member of his club paying two hundred and fifty dollars for a new gun. Poor fellow! He has never learned the rule for computing the profit on an investment of that sort. He knows nothing about the pleasures of the field. He never trudged through the stubble at early dawn and participated in the sport of quail-shooting. He never was startled by the hurling whirl of the cock grouse as he clears the undergrowth and stretches away, nor felt the grateful tingling of the warm blood coursing through each vein and artery as it leaves the heart, where it was confined for that single instant when each faculty was intent on covering the bird, when he sees the stream of feathers flying on the morning air, and hears the resounding thump which announces a dead shot. He never waited for hours secreted in a blind, cold and uncomfortable, his eye roving from decoys to horizon and back to decoys again, until it seemed they'd never come; nor felt the breathless anxiety as a black V shaped line came moving up, up, nearer, nearer, assuming more definite form as it comes rushing on, until at last a great flock of lrant are lighting, gabbling and diving among the decoys, and then the culmination of all this in the double discharge of his heavy ducking gun, the result of which pays for the patient waiting ten times over. He never stood at a runway with cocked rifle waiting for the red deer, which is even now approaching, as he knows by the deep-mottled music of the h-wands, morally certain that the quarry will pass his stand within shot while he bids his heart "he still," grudging it each pulsation which may tend to swerve his trusty piece, until the other heart has ceased to beat through his true aim. Oh no! He never knew

the sweets of Field Sports, or he wouldn't have found fault with his friend when he paid the (to him) exorbitant price for a gun.

Man loses nothing by indulging his purer sporting proclivities. On the contrary, he is the gainer by it; that is, if you count a clear, vigorous brain and a sound body, at the expense of a moderate outlay of money, a sufficient recompense. Mental and physical labor require relaxation, not that conventional production found at Saratoga or Long Branch, but the natural, God-given kind, furnished to man but for the taking, which lurks in stream and forest, among the darting trout and sylvan denizens.

Oh! ye who live a pack-horse life, who toil and toil year in and out, who let the seasons slip by unheeded or simply notice them in their flight as times when trade or stocks are brisk or dull, who never go out and commune with nature, filling yourselves with that inspiration which comes through pure air and freedom from corroding care,—do you know that you it is, not we who are the wasters of this precious life so kindly granted us? Do you realize how much of joy you are losing—how you are cutting off your years before their time,—sacrificing your purest, noblest instincts on the altar of your ambition or lust of gain—becoming dull and misanthropic through a mis taken notion that life was made for unremitting toil? Throw off these foolish prejudices, and in this lovely spring-time go out beneath the blue canopy of heaven, study nature and all her gentle revelations, pointing you to a higher, nobler life. Take gun and rod along, use them understandingly, and you will find that God did not make man for the world, but the world for man.

I. W. DE L.

**THE THRUSH.**—The thrush is scarcely surpassed by any other bird, excepting the nightingale, and pours forth his full wealth of song in varied form, upheaving his parded breast, and looking out upon the still landscape with bright, restless eyes. We hear him singing in the early morning, before the round sun has scaled the hill-tops. He keeps up his music throughout the day and closes at night without any apparent fatigue. There is no diminution of sound, no feebleness; he seems more like a good instrument which, after being played on for hours, sends forth a sweeter sound; he is no weak traveler who, having gone a long day's journey, drags wearily up the drive at sunset. You cannot fail to distinguish his voice from among the warblers of the woods; not that his notes are always alike, but there is some regular modulation, a natural sweetness, which, however varied, "still does his touch the strain prolong," and you know it is his own, and could not be deceived even if he had hidden himself in the carcass of an owl. "I recollect well," says an Englishman, "that one of the first birds I reared when a country boy was a thrush. He was the pride and delight of the whole neighborhood; even the neighbors forgave him for breaking their slumbers so early in the morning for the sweetness of his song. An old fisherman who arose with the break of day, and who resided in the adjoining house, made the opening of his music a clock to get up by, and he never was really deceived in time but once, and that was one rarely beautiful moonlight morning which streamed in brilliant beams through the window shutters, and lured the lovely bird into the belief that it was day."—Translated from the German.

**PHYSICIAN'S OFFICE CASE-RECORD AND PRESCRIPTION BOOK.**—We are in receipt of a copy of this work at the hands of the publishers, Robt. Clark & Co., of Cincinnati, O. It is the most perfect prescription book and case-record ever published, having duplicates for prescription, and spaces for recording name of patient, address, diagnosis, physique, pulse, temperature, respiration, etc., enabling the practitioner to keep the treatment of his case more clearly in view; moreover, it is a very convenient and excellent device against errors in writing prescriptions. If physicians once use this work they will never again be without it. Apothecaries should provide themselves with them, for the benefit of physicians. The same firm also issue a *multum in parvo* pocket edition, combining a visiting list, prescription blank book, and case-record, which is simply invaluable.

**IN AID OF THE CHURCH OF ST. AGNES.**—A series of athletic games and other sports will take place Monday, the 20th inst, at Jones' Wood, for the benefit of the Church of St. Agnes in E. 43d. st., near Lexington ave. They will mainly consist of walking matches and running matches for young men, a comic mule race, fat men's foot races, a fat pig hunt, greased pole climbing, and boys' egg and spoon races. A handsome silver cup, a silver medal, made and engraved at Tiffany & Co.'s, a watch, a gold-headed cane, several purses, and other handsome prizes will be put up for the contests. Entries to all the races are being made now by Mr. F. W. Whittaker, 350 Fourth Avenue.—[Add.

**YOUNG QUAIL.**—On Saturday, July 17, as a farmer was mowing on Mr. Foster's meadows near Williamsburgh, he cut off the head of a female quail. Her nest was found close by, containing sixteen eggs. These were taken and hatched by a chicken and then given to a male California quail, who has since cared for, and brooded them, evincing all the solicitude of a parent, ruffling his feathers and biting at any one that offers to approach the little ones. The youngsters exhibit great dexterity in catching flies from the bars of the cage, and are so tame as to even take them from the hand when offered. They may be seen at Theodore Krauss', 272 Old Bushwick Avenue, Williamsburgh.

GAME PROTECTION.

ILLINOIS.—Section 5 of the Game Law now in force in this State reads as follows:—

That it shall be unlawful for any person to net or trap at any time, or kill any duck between the fifteenth day of April and the first day of September in each year; and any person violating the provisions of this act shall, upon conviction thereof, be fined in the sum of two dollars for each wild duck so unlawfully trapped, netted or shot."

The Tolleston Club, of Chicago, have united with the local authorities at Tolleston, and the law is to be enforced at all hazards.

IOWA.—*Cedar Rapids, Aug. 8.*—Our game law, as amended by chapter 123, laws of 1876, makes it unlawful "for any person any time, at any time of the year to shoot or kill any prairie hen or chicken for the purpose of shipping to any point within or without the State for the purpose of selling the same for profit." Penalty \$5, each bird. A person may ship any of our game birds to a person within or without the State, not exceeding one dozen in any one day, by making proper affidavit and delivering a true copy thereof to the common carrier or railroad agent, which must set forth: 1, That the shipper is a resident of this State; 2, That the same is not shipped for sale or profit; 3, Name, and post office address of consignee; and 4, The number of birds shipped. Amers.

MICHIGAN.—*Saginaw, Aug. 9.*—Notwithstanding the fact that the game laws of Michigan forbid the shooting or killing of deer, wild turkey, partridge, quail, and every species of wild duck and water fowl at this season of the year, it is a fact well known that the game laws are being violated in this vicinity in a shameful manner; scarcely a day passes but new cases of deer and duck shooting come to light. As high as sixteen or eighteen wild ducks have been counted in the boats of these law-breakers, as the result of only one day's shooting. Rumor has it that wild duck can be obtained at certain restaurants in this city and Saginaw city upon call. Young ducks, fledglings and whole broods share the general slaughter.

It is also a well known fact that deer are now being daily killed along the line of the Jackson, Lansing & Saginaw and Flint & Pere Marquette Railways, though the law prohibits their shooting until the 15th of September. Game is rapidly being exterminated and driven farther and farther from the city, and the rich rice marshes north of the city, which, a few years ago, would yield fifty or sixty ducks to a single gun in a day, are now nearly depopulated of their web-footed inhabitants.

MICHIGAN.—The game laws of Michigan which have long been openly violated in the game districts about Saginaw and East Saginaw City, Mich., are now to be enforced. A meeting of sportsmen was held Aug. 9th, at East Saginaw, when a permanent organization was effected with the following officers: Pres., Reuben Fairchild; Vice-Pres., H. B. Roney; Sec. and Treas., Leander Lee.

FLORIDA.—*Tampa.*—The game law is well observed in this and adjoining counties. One man in Manatee County killed a deer the other day; but he won't violate the law again—it took about all he had to pay the fine. W. H. S.

The fancy prices at which deer forests in Scotland are nowadays let would have sent Dumbiedikes, Ellangowan, and Monkbarus into fits. Sir John Ramsden gets £3,500 for two months for one, and £3,000 a year for another, and a competent authority estimates the annual lettings of Invercuss and Ross-shire at £80,000 a year. Half a century ago they would not have been worth a tenth of that sum. Holders of almost valueless Adirondack district property may yet have their day. There are nowadays ten times as many men of pleasure here as there were fifty years ago, and a great deal of cash has gone out of the pockets of rich Americans into that of Scottish lairds.—*Ex.*

BOB WHITE.

[FROM OUR SPECIAL CORRESPONDENT]

FERN BANE, July 19, 1877.

EDITOR FOREST AND STREAM:

I wish to correct a statement of mine in your issue of July 12 as to the close season for quail in the State of Ohio, to the effect that it was extended so as to include the current year. I certainly understood "Glean" to say so and gave him as my authority for the statement, but finding it doubted by several well-posted members of the Cincinnati Shooting and Fishing Club, I referred the question back to "Glean" who addressed me the following letter, which I hope you will find room for.

MY DEAR COL,

By the latest law—the very latest, mark you—the prohibition against quail-shooting in this State expires in November next and the season is then open until January 1.

This will be pleasing information to our sportsmen which will be enhanced by the knowledge that never for years have the birds been so abundant as now.

By the inclosed you will see that you are not alone in your humanitarian views of the glass ball trap.

The Executive Committee of the Cuvier Club at its last meeting presented the following report, which was adopted *unm. con.*

"Mr. Logan, from the Executive Committee, read the following report:

"The Executive Committee take pleasure in informing the Club that they are about to purchase a glass ball trap, to be put at the disposal of all members of the Club who wish to use it. And the committee desire to state the reasons which have prompted their action.

"It is well known that the Cuvier Club has always resolutely opposed prize pigeon shooting in all its phases.

"The Club was not insensible to the arguments by which such practices were sought to be upheld. There were the improvement in marksmanship, helpfulness of out door exercise, the encouragement of a taste for the gun, and the much needed relaxation from business.

"To all these the Club gave its hearty approval. Indeed,

all these are intimately blended with the avowed objects of the Club. But as against them there were counter arguments, unnecessary to be repeated, which outweigh the other considerations.

This action has provoked the displeasure of some, who have openly charged that the Club was an iconoclast; that it destroyed but never created, and that the interests of the gun were purposely ignored.

"In the introduction of the glass ball the Club sees what it hopes may prove a solution of the difficulty, a pastime which embraces all the benefits, without the drawbacks, of the pigeon trap. It may happen, however, that in time the one may become as much perverted and objectionable as the other, in which event it should be immediately abandoned.

"To avoid this, the committee desire to aid it by their encouragement, that it may not fail from the first for want of reputable recognition; and while the Club as a club does not intend to inaugurate or carry on trap matches, yet it provides that as one of the many sources of recreation for its members."

I am sure you will second these sentiments. GLEAN.

I am glad that I was mistaken, for from my own observation and from what I hear from all parts of the State birds have rarely been so abundant as now and they have had a favorable season for the hatching, and we have had no torrential rains to drown the young broods.

Propos of Bob White, permit me to take this opportunity of relieving my conscience for ever having assented to call this—take him all in all, the sport which he affords when shot over well-trained dogs, and his edible qualities, the noblest of all our game birds—a quail.

It may be because I was born and grew to manhood in a Southern State, but I will confess that I have never, as I have often done, called our *Perdix virginianus* a quail without a certain degree of compunction at having contradicted, as it were, such illustrious men as Nuttall, Wilson, Audubon, Bonaparte, and others who have devoted time and labor to the special study of ornithology, and who all call the bird a partridge!

I have shot the quail proper on both sides of the Mediterranean, and, knowing his habits and qualities thoroughly, I feel as if I were inflicting a wrong on our game little whistler, and insulting him by calling him a quail. There is physically a wide difference between the two birds and that greatly to the advantage of our native Bob White. The quail proper is not as large by half as our own bird, nor is his plumage so beautiful; his flesh is dark; and, having no tail to speak of, he compares with our Virginian partridge as would a dung-hill fowl with one of Van Winkles or Perry Baldwin's game-cocks. The quail proper is an immoral little euss after the manner of the Mormons or Mohammedans, taking as many wives as he can get; and, worse than the human polygamist, he disdains the cares and responsibilities of paternity. What a noble moral contrast does our bird present! He has but one wife, and all the affections of his faithful little heart are bestowed upon the gentle mate won at the risk of his life in many a hard fought battle. And what a model husband Bob White makes when alive, and what a succulent pie when dead! What grand sport he affords to the sportsman and what gustatory delight to the epicure.

But there are other differences between the birds. The quail proper is as strictly migratory as the swallow. He changes his climate twice a year on wings which bear him across the broad Mediterranean Sea, on both shores of which he is found in great multitudes, whereas our *Perdix virginianus* is a home-staying, domestic bird, associating for the greater part of the year with his own family only, the wife of his bosom and the pledges of their mutual love. *Perdix* does travel from one district to another in search of food or better cover, but his powers of flight are not equal to migration across seas and continents, for he cannot cross over larger rivers.

The above are some of the reasons for my reluctance to depart from the Southern nomenclature and degrade gallant Bob White into a quail.

But seriously, Mr. Editor, our writers on field sports should be less careless in the nomenclature of our game and as solici-tous for the instruction of their breeders as for the enforcement of the game laws. F. G. S.

FRAUD.—Early in JUNE I noticed in FOREST AND STREAM an "ad." inserted, I presume, by some parties styling themselves "the Western Gun Works," 69 Dearborn street, Chicago, offering, on receipt of \$3, to forward to any address a handsomely got-up revolver. Assuming, from the respectability of your paper, that the "ad." was genuine, I forwarded the money (\$3), but have not got the revolver, although I have written several times to know the reason why. On August 2 I wrote to M. C. Hickey, Esq., Chief of Police, who replied: "There was such a firm here, but they are now busted." W. P. S.

*Brooklyn, Aug. 9, 1877.*  
[Three dollar revolvers are a fraud, and so are the \$5 rifles, both inadvertently advertised by us. We do not intend any unreliable article or concern shall be advertised in our columns, but unfortunately, through press of business, etc., due to the Consolidation, the Western Gun Works of Chicago and \$5 rifle—which is nothing but the old Star carbine—obtained a single insertion in our columns. Accidents will happen, but we have taken measures to prevent their recurrence.—Ed.]

REMINGTON'S CATALOGUE.—Remington & Co. have just issued a new catalogue for the present year of their breech-loading firearms. This leaves nothing to be desired, being not only a complete catalogue, but a treatise on rifle shooting, history of gunmaking, record of international rifle matches, and rules and regulations for shooting at long-range. The well-known character of Remington & Co. is evidence sufficient as to the correctness of this elegant little work.

OUR WASHINGTON LETTER.

ORTOLAN AND REED BIRD SHOOTING ON THE MARSHES—DO ORTOLAN HAVE FITS?—REED BIRD DIET FOR SNAKES AND EELS.

[FROM OUR SPECIAL CORRESPONDENT.]

WASHINGTON, D. C., Aug. 10, 1877.

THE season for marsh-shooting on the Potomac and neighboring streams in this vicinity as well as in Maryland and Virginia is drawing near, and there will soon be fine sport among the ortolan and reed birds which frequent these marshes during the first month or six weeks of autumn. Ortolan (*Porzana carolina*), or as they are often called, sora rail, reach here about the middle of August on their return from the breeding grounds on the borders of the great Northern Lakes, and always tarry here, finding abundance of food in the marshes in this locality, among which are those just off the city adjoining Anolston Island, and opposite, covering an area of several hundred acres. The largest marsh, however, is that near Beuning's Bridge, on the Eastern branch, which is about four miles long, and varies in width from a quarter to a half of a mile. Other marshes are lower down the river in the neighborhood of Alexandria and Fort Washington, and upon all of them the birds find abundance of food, skulking amid tall reeds and grasses, both by day and night, in search thereof. During the first two or three days of the season, which begins on the 5th of September, as many as six or eight dozen ortolan are sometimes killed by one gunner on a single tide, but as the season advances the birds are killed off, others migrate southward, and in a few weeks they become scarce. They seem to have a premonition of a sudden cold snap, and often vacate the marshes in a single night in case of a sudden change in the weather, seeking the more sunny skies of the South. Although a spring visitant they remain here but a short time at that season, evidently being in a hurry to reach their breeding grounds. On their return in the fall their flight is much slower.

For ortolan shooting in this locality the requisites are: first, a light skiff drawing but two or three inches of water so it will slide over the weeds and grass at high tide when the marshes are covered with water; next, the services of an experienced pusher must be secured. He is furnished with a pole twelve or fourteen feet in length, having a cross-piece about six inches long at the end to prevent it sinking in the mud. The gunner takes his position in the bow and his pusher in the stern of the boat, and about two hours before high water they can enter the marsh. As the tide rises the birds are more easily put up, and the sport continues until about two hours after high water, when it becomes a difficult matter to push the boat, on account of the receding tide; besides, the birds are then able to hide under the weeds and will not rise. It is the business of the pusher to always mark the spot where the dead bird falls, and direct the boat thereto, as the gunner generally has all he can do to load and fire as the birds rise, two or three at a time, all within shot, but from different places. Ortolan will only rise when the tide is too high to prevent them hiding at the approach of a boat, and then they fly with dangling legs, proceeding but a short distance, when they drop with outspread wings among the reeds. It is an easy matter to put the same bird up two or three times, but after that they become frightened and dive, keeping their bill only above the water.

I have known of two instances where ortolan were suddenly approached by a boat, and manifested such fear that they had convulsions and rolled over and over a half a minute or more before recovering consciousness. In one case, the bird, after going through various antics, flew and was killed, but in the other the bird, after regaining its senses, dove, and could not be put up again. I mention this fact as the result of actual observation, and have no doubt that the same thing has been observed here and elsewhere by those accustomed to noticing the habits of birds of this character.

Reed birds, as they are called in this vicinity, but rice birds further South, and bob-o-links in Northern States, are here in the fall in incredible numbers, and as they are always found in flocks many are often killed at a single shot. About two weeks after their arrival here they grow fat upon the wild oats which constitutes their principal food. Indeed I have known them to be so fat that they could not fly any great distance, and when in this condition they are esteemed as a great delicacy, frequently bringing from 75 cents to \$1.25 per dozen in our markets, where they find ready sale. Numbers of them are wounded during the season, when flocks are fired into; but those unable to fly, although they may succeed in hiding from the sportsman after being dropped, soon fall the victim of suckers and eels. On several occasions I have knocked down reed birds, and upon going to the spot to pick them up, have found a villainous water snake, sometimes two or three feet long, feasting upon the bird, having grabbed the dead or wounded bird which happened to fall near his snakeship. It is needless to say I invariably gave the snake the contents of one barrel.

Eels, too, frequently capture dead birds and drag them off under the weeds, where they soon devour them.

Reed birds, unlike the ortolan, seldom penetrate into the interior of this country, but from the time they reach our shores from the West Indies, in early spring, seem to prefer the marshes bordering the Atlantic coast. The plumage of the male bird changes in the spring to bright and attractive colors, but after the breeding season

is over they lose their gay livry and assume the yellow hue of the females. They do not tarry here in the spring longer than a few days, and their flight at this season is mostly at night, but upon their return Southward in the fall their flight is diurnal. They breed in Northern latitudes, each pair of birds mixing from four to six at a brood. The young birds soon join their parents and other families, forming immense flocks, in which they commence their Southern journey in August, tarrying upon the numerous marshes en route for food and rest. Toward the latter part of fall they have reached our extreme Southern rivers and estuaries, and by the first of December they have all left the country for a more tropical climate.

In both reed bird and ortolan shooting we use small loads, about two drachms of powder and one ounce of No. 9 shot, as the birds are most always dropped within forty yards, and besides they are much easier to kill than either a partridge or woodcock. Another favorite shooting ground in this locality is at Hill's landing, on the Patuxent River, about eighteen or twenty miles from this city. The birds here are not hunted to as great extent as on our marshes, and as a consequence they are very plentiful. The Virginia Rail (*Rallus virginianus*) is also found there, but are not abundant.

The fresh water marsh hen, "king ortolan" (*Rallus elegans*), is sometimes found upon our marshes, though never in numbers. These birds are much larger than the ordinary ortolan, and exceedingly shy. It is a difficult matter to get a shot at them. Besides the ortolan and reed bird we often find different species of plover, summer duck, and other game birds frequenting fresh water marshes.

NOTICE TO SPORTSMEN.—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining, to imitate the genuine article) without letting our customers know just what they are getting.

P. O. Box, 1,294.—ADOLPH ABBEY & IMBERIE, 48 Maiden Lane.

The Rifle.

OFF-HAND MID-RANGE SHOOTING.—On the afternoon of the 1st inst. a novelty for off-hand shooters was tried at Creedmoor in the first contest for a gold badge presented by Brigadier-General Daniel D. Wylie, open to members of National Rifle Association or National Guard, State of New York; weapon, any military rifle; distances, 300 and 500 yards; position, standing at each distance; rounds, seven at each distance, without sighting shots; cleaning allowed only between distances; badge to be won three times (not necessarily consecutively) before becoming the personal property of the winner. To make a decent score at 500 yards off-hand, with a 6-pound pull, open-sight rifle, requires a rare combination of steadiness and judgment, and to those who consider all prone shooting childish, the Wylie badge match will give opportunity to air their theory in practice. The scoring as done under these conditions was really very fair, and out of a possible 70 the scores ran (all the competitors used the Remington N. Y. State model rifle, cal. .50, excepting Mr. Collins, who used a Sharps rifle):

Table with 5 columns: Name, 300 yds., 500 yds., Total, and Retired. Lists names like J. R. Grohman, F. H. Holtom, J. H. Price, etc.

THE SHARPS MATCH AT CREEDMOOR.—The sixth contest for the Sharps' Rifle Co's prize of \$250 gold was held at Creedmoor on Saturday last. The match is the ordinary 45-shot long-range one, except that coaching is strictly forbidden, and the winner is to lead at all three of the ranges. On Saturday Major Fulton was fortunate enough to lead at 800 and 1,000, but unfortunate enough to "flunk" at 900 yards. With a boisterous wind the scores stood:

Table with 5 columns: Name, 800 yds., 900 yds., 1,000 yds., Total. Lists names like Henry Fulton, W. H. Jackson, I. L. Allen, etc.

THE IRISH-AMERICAN MARKSMEN.—The members of the Irish-American Rifle Club, at their regular shoot last Saturday, showed good average shooting, and the club, by regular practice, are certainly pulling together a very respectable team. The last shoot was for the Burton prize, 7 shots at 200, and 7 at 400 for military rifle, and 600 for any rifle. Gen. Milten, Col. Burton and Mr. Malthy came within the latter class, the range totals standing:

Table with 5 columns: Name, 200 yds., 500 yds., TT, 200 yds., 500 yds., TT. Lists names like N. D. Ward, F. M. Milten, etc.

After the shooting a meeting was held, and a challenge from the Greenwich (Conn.) Irish-American Club was considered and accepted. Also a challenge was resolved upon for their ancient rivals, the New York Scottish-American Rifle Club.

THE AMERICAN TEAM SELECTION.—The competitions for places on the American team of 1877 was continued on Tuesday and Wednesday of last week, and good scores were shown on both days, the scores standing on the first day:

Table with 5 columns: Name, 800 yds., 900 yds., 1,000 yds., Total. Lists names like Isaac L. Allen, W. H. Jackson, N. Washburn, etc.

The aggregate score made by the first eight men was 1,590 points.

On the second day's shooting the totals were:

Table with 5 columns: Name, 800 yds., 900 yds., 1,000 yds., Total. Lists names like I. L. Allen, W. H. Jackson, Gen. T. S. Dakin, etc.

Several days were added by the committee to those already fixed for the completion of interrupted scores, and on Saturday a few went down and fired over, scoring as follows:

Table with 5 columns: Name, 800 yds., 900 yds., 1,000 yds., Total. Lists names like L. Weber, Gen. T. S. Dakin, etc.

Mr. Rathbone undertook to try a new gun, and was punished for his foolishness in a low score.

THE NEW YORK SPOCK EXCHANGE RIFLE CLUB.—Shoot in the second competition for the Worcester medal on the 1st inst. The conditions require ten shots per man at 200 yards, any rifle, off-hand. At the last match, the badge went to C. Dewing on a score of 42. The leading scores made by the Wall street marksmen stood:

Table with 5 columns: Name, 200 yds., 300 yds., 400 yds., Total. Lists names like D. Clancy, C. Dewing, J. W. Amory, etc.

THE AMERICAN TEAM OF 1877.—The extra day's shooting on Tuesday last virtually concluded the competitions for places on the American team of 1877, and immediately at the finish of the work, the Committee appointed to conduct the matches, Gen. Wylie, Capt. Story and Col. Wingate, proceeded to canvass the scores, and out of the best 3 in 4 two day competitions, named the first 6 men of the team as follows: Jewell, 1,220 in a possible 1,250; Allen, 1,219; Jackson, of Boston, 1,201; Weber, 1,195; Hyde, 1,191; Dakin, 1,187. These gentlemen, then, in session with the Committee, decided that it was unnecessary to go outside the present shooting ranks to fill up the team, and Bruce, 1,172, and Blydenburg, 1,169, were put on in the 7th and 8th places, with Hepburn and Lamb as reserves.

The Amateur Club will be represented on the team by Allen, Jewell, Weber, and Hyde or Dakin as fourth man.

The team at once chose Gen. Thomas S. Dakin as the Captain, and fixed Tuesdays and Wednesdays as practice days. The organization was very harmonious, and the team gives promise of being a hard working one.

RIFLE INSPECTOR'S QUALIFICATIONS.—The learnedly-profound rifle editor of the Herald, who knows everything and a little more, delights to expound the law of military perfection to the national guardsmen, and recently has laid down at length what he considers the minimum amount of knowledge requisite to make a passable rifle inspector. Several members of that hard-worked class, mistaking the General's glittering generalities for a general order, at once penned their letters of resignations. He says:

The fact of being merely a good shot is only one qualification for an inspector or instructor; he should be thoroughly acquainted with the mechanism and nomenclature of the regulation rifle; he should know the theory and practice of ballistics, and be well posted in geometry, the nature and composition of gunpowder, and the figure, specific gravity, as well as the kind of alloy best adapted for projectiles, should be familiar to him. With these preliminary studies and a good knowledge of military matters in general, embracing elementary tactics and military administration, the rifle inspector and instructor would be a useful officer. He should establish classes for the theoretical and practical study of musketry. The brigade inspectors, under the superintendence of their division superiors, should carry on these schools for officers only, and the regimental instructors should do the same for the non-commissioned officers of the corps to which they are attached.

A LETTER FROM SCOTLAND.—The full text of the Scotch protest against the shooting of a British team in the International Match has been received. If the object is to draw out

a definite interpretation from the donors and presenters of the badge, which should act as a guide to the British men in case the trophy should fall into their hands, all such a statement should be put on record, and if this protest can accomplish it will serve a useful end. However, a British-American match will surely go on if the British ever get here. The letter says:

67 WEST ROBERT STREET, GLASGOW, JULY 23, 1877. GEO. S. SCHEMMEKERS, ESQ., Sec. N. R. A., NEW YORK.

Dear Sir—I was duly favored with yours of April 8 last, containing a copy of the Resolution of your Board of Directors about the competition for the American Centennial Trophy, and Lieut.-Col. Macdonald, Edinburgh, also forwarded to me your letter to him on the same subject. To permit my giving you the desired notice before June 1 (instead of waiting till our general annual meeting) issued a special circular to every member of our club, and the unanimous reply against Scotland competing this year, but many of them expressed hope that our council may arrange for Scotland competing in 1878.

After the full discussion, both prior to the match last year and the after at the meeting of the competing teams and others at Philadelphia, our club thought it settled beyond all doubt that under the constitution or rules of this match it is incompetent for a mixed (or we sometimes call an Imperial British) team to compete. Neither by the letter of last year nor of this year is such a team invited, nor can it be given the required notice by the 1st of June last. The council of our club are therefore surprised to learn that the same parties who we do not compete last year along with the Scotch and Irish are getting up a so-called British team, and purpose competing this year. If our council thought it would not prejudice the rights and interests of Scotland they would have no objection to such a team competing, and would be glad to learn of their success; but they consider that if they consent a British team competing now, the right of Scotland hereafter to enter a team may be questioned, and in the event of the British being successful would be denied. They have instructed me on their behalf the party who accepted the invitation and sent a team for Scotland last year, and on behalf of that team and captain, to enter hereof formal protest against any so-called British team being allowed to compete for the American Centennial Trophy. This trophy, our club consider, is presently held by the winning American team of year in trust, specially to carry out the intention of the donors—American people—as declared in the constitution and rules of the match, which has been already interpreted and acted upon, and your association are acting in behalf of that team. They are therefore confident that this trust will be faithfully fulfilled, but considering strong and prejudiced views expressed by the promoters of the British team, our council consider it doubtful whether this trust would be partially executed by them should success impose it upon them.

To prevent any misunderstanding the council have instructed me to send a copy of this letter and protest to Sir Henry Hatford, as captain of the proposed British team, and I shall feel obliged by your communicating it to the captain of the American team of last year.

I am, dear sir, yours faithfully, R. RENTON, Hon. Sec.

WALPOLE AMATEUR RIFLE CLUB.—As a couple of "spoon bricks" of what the Walpole men can do, a pair of scores of shooting by T. H. Gray, made on Aug. 4th, are received. Ten shots each distance. Score—50 at 800, 50 900, 100 in the possible 100, and yet Mr. Gray is one of our American team. Shall we always be provoked in our favor at Creedmoor by the receipt of these big scores from provinces?

ZETTLER RIFLE CLUB.—207 Bowery, July 31.—Last week shoot for Bull's Eye Badge, presented by Mr. B. Zettler, shooting master of the club. Out of a possible forty bull-eyes, the following scores were made. Creedmoor target deemed to be one such eye; distance, 100 feet: Chas. Judson, 29; William Klein, 28; P. Penning, John Dutty, 37; Max Engel, 26; D. Miller, 23; L. G. Bay, 23; C. Schurman, 19; C. Zettler, 19; M. Dorrier, 10; L. Beck, 18; R. Zimmerman, 15; L. Bird, 15; J. Keyles,

ZETTLER'S GALLERY.—Friday, Aug. 3.—Seventh competition for "Centre Gold Medal." Won for the second time by D. L. Beckwith. The medal has been won once by P. Penning, M. Lennon, Wm. Brown, J. Lurch and J. Duill. A badge will be shot for every Friday evening. Open to all who will be won three times by best average of centres (40 points).

STRING SHOOTING.—The twentieth annual meeting of National Rifle Club will be held at South Vernon, Vt., September 4th and 5th, 1877. A general invitation is extended all interested in rifle shooting. Any one can become a member and entitled to all the privileges of the club by paying \$5.00 entrance fee to the match for club medal. The standard weight of rifle barrels being fifteen pounds, all over must be the following odds:

Table with 4 columns: Range (100, 200, 300, 400), Weight (1, 2, 3, 4 lbs), and Odds (1 to 1, 2 to 1, etc.).

First string will be shot Tuesday afternoon, second third strings on Wednesday. Distance, 40 rods. Time 10:30. JOHN WILLIAMSON, Pres. CHAS. C. HERBARD, Sec.

THE CANADIAN-AMERICAN LONG RANGE MATCH.—The Y. American Club have requested the Hamilton Victoria to fix Saturday, Sept. 1st, as the date for the match between the two clubs. The New York team will consist of J. Hyde, G. Giger, Allen, Hepburn, Bruce, Fulton and Cole and Col. Sandford as Captain. It will be determined reaching the ground whether 6 or 8 will shoot. Members of the club are invited to accompany their team men on a trip.

Ogdensburg, N. Y.—A full score was made on our part by Mr. James Ives, Wednesday, Aug. 8th, at 900 yards, giving him 223 out of a possible 225 at the three range made on three different days, viz.: July 24, 1,000 yard Aug. 2, 805 yards, 75; Aug. 8, 900 yards, 75. Total, 244 bull's-eyes and a 3. Mr. Ives had no practice but dates, these being the three last times he has visited range. A CALLAGHAN, President O. O.

Mr. Ives ought by all means visit Creedmoor, and all before him.

THE OSWEGO-BELLEVILLE MATCH.—The match between the Forty-eighth regiment team, of Oswego, N. Y., and Forty-ninth regiment Hastings team, of Belleville, was shot on the 9th and 11th inst., the first day's shooting on the range of the Belleville men, and the latter of Oswego range, and on the aggregate the American team were more victorious. The conditions of the match were Teams of six, seven shots at each range. The highest



Game Bag and Gun.

GAME IN SEASON FOR AUGUST.

Table listing various bird species such as Woodcock, Phalaropus minor, Red-bellied plover, etc., and their seasonal availability.

"Bay birds" generally, including various species of plover, sand-piper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets, etc., coming under the group Limicola or Shore birds.

The frequent alteration of game laws makes such confusion that sportsmen are kept quite in the dark as to when shooting on various kinds of game is permitted.

Table with columns for States, Pinnated Grouse, Ruffed Grouse, Quail, and Woodcock, showing seasonal ranges for each.

A law was passed in Nebraska last February, prohibiting the shooting of any kinds of wild bird except waterfowl, snipe, waders and woodcock.

RECOIL OF GUNS.—Lawton, Mass., July 18.—After carefully reading the well written article of "Straight Bore," it would seem to me that there could be no opposition to his theories.

Now to show this more plainly: fire your gun without any missile, and you will find the same pressure backward, but the resistance of the air not being equal to that of the gun the motion is slight.

In regard to the paper test I do not agree with Straight Bore. From the centre of the explosion the force is equal in all directions; and the resistance of the paper and air together will be greater than the air alone, the recoil would be on the air above.

RECAPPER'S THEORIES.—If there is, in connection with journalism, any one thing more despicable than a newspaper controversy I know it not; and if out of place anywhere, it seems to me to be eminently so in a paper devoted to field sports.

RECAPPER. There is considerable talk as to the merits of large and small bores for killing game, some of the small bore advocates not remembering that most modern fine 10 and 12 bores are more

or less choked, and that their patterns of shot are not as large as most of the old 16 and 12 gauge, and from the closeness of the bullets much more deadly; therefore making a clean kill and fewer cripples at ordinary ranges, and very much increasing the chances for killing at long shots.

SMALL vs. LARGE BORES.—J. W. S. writes: "I have used shot guns for the past twenty years, and of many sizes and weights, and consider a 16-bore rather small, for the following reasons: If the weight is in proportion to the bore it makes a gun too light for all kinds of work.

"Sportsmen should choose guns to suit their conditions. If one's health will not permit him to hunt much for waterfowl, a light gun would suit him best; but if he is healthy and strong, a 10-lb. and 10-gauge gun would not fatigue, and would be serviceable for all kinds of game.

SIX-BORE vs. TWELVE-BORE.—Galveston, Texas, July 15, 1877.—Major Merrill in his reply to me, suggests a heavier load for my muzzle-loader or six-bore. I will state that I always take the advice of Mr. W. Greener and give a gun all she will stand.

SHOOTING SUITS.—Whenever a sportsman, or even one who does not claim the distinction, has or finds a really good and useful article, I think it no more than fair that he should let others have the benefit of his experience or knowledge.

CONNECTICUT.—New Haven, Aug. 4.—We shall have good quail shooting this coming season, although thousands of the little fowls perished last winter. Ruffed grouse are abundant, but woodcock scarce as compared with former years.

MASSACHUSETTS.—Salem, Aug. 6.—The past week has been excellent for gunning in this vicinity. Ipswich has been doing nobly. Among the birds taken have been jack curlew, upland plover, beetle-heads, winters, summers, robin snipe, grass birds, chicken birds, ring necks, peeps and sandering; in fact all the kinds of waders due at this season have been shot.

NEW YORK.—New Brighton.—At a regular meeting of the Forrester Sportsmen's Association, held Friday evening, Aug. 3d, the following officers were elected: President, J. B. Reno, Esq.; Vice-Pres., Dr. A. M. Whistler; Secty and Treas., J. P. Edgar.

NEW JERSEY.—Large numbers of shore birds are bagged at Beach Haven, Brogantine and Tuckerton.

We look for black breasts by the 15th to 18th. Woodcock is some parts of the county are said to be quite numerous. Average thus far has been good sport, but the weather of last past week has been great for birds. East winds and this past night. Weather now northwest and clear.

LYNN, Aug. 6.—I noticed in one of your late papers a Briton made of marsh birds in Salem and Lynn. I would like to see that, as far as marsh birds are concerned, the Rev. B. and Lynn R. R. have put an end to their feeding on the marshes. I have been there quite a number of mornings late (both before and since I saw notice in your paper) and have hunted these marshes for years, and have made some good bags; but it is over now. Steam whistles and snipe or plover do not travel on the same route.

HORNELLSVILLE, N. Y., Aug. 5.—The woodcock season opened very fair, the best bag yet made being that of Mr. A. Breese, who killed 11 on the first day. Two parties of youngsters left to day to camp for three or four weeks in Potter Co., Pa. I predict that the flies and mosquitoes will drive them out in a week, as it is their first experience of camp life.

KINGSTON, N. Y., Aug. 6.—A large catamount was killed near Greenfield a few days since. Another has been tracked by dogs, and parties in the vicinity are on the lookout for him.

PENNSYLVANIA.—Maple Lake, Pike Co., Aug. 4.—Woodcock have been quite scarce around here this year. I have not heard of over a dozen being killed altogether, of which I bagged three, the result of all one morning's faithful hunting, and which three were all killed on high ground.

MOHGAN.—Detroit, Aug. 10.—At the last medal shoot, Stenton lost and Long won it. The boys utter so many scriptural words when Littleton is not on the ground acting as referee to fine them for it that it is evident they really enjoy the liberty of abusing and making fun of each other.

DETROIT, Aug. 4.—Wm. Mason and Revere Gay went down as far as the river Rouge for black birds to make a pie and bagged 70; they also brought down four snipe with their four barrels, which was not so bad after all.

DETROIT, Aug. 11.—Capt. Mott, keeper of lighthouse at St. Clair Flats, bagged six woodcock on the 4th inst. He says that snipe will be unusually plenty this year on the Flats, as the season has been very favorable for them.

MISSOURI.—Cape Girardeau, Aug. 5.—The close season for quail ends October 15. The prospects are good for fine sport this fall in this vicinity. Squirrels are abundant, and as they are not protected by law can be killed at any time, and the boys have a feast of the nut crackers.

WISCONSIN.—Onalaska, Aug. 3.—Pinnated grouse and ducks are very plenty here now, but they are being rapidly depleted in numbers; people here don't seem to care anything for the law. One can hear the pop of guns at all times in the day above town at the lake.

KENTUCKY.—Ashberg, Aug. 7.—Game will be scarce in this country the coming winter, with the exception of quail. They are abundant, there being double the number ever found before. They are now nearly grown.

PIGEON MATCHES.

CHALLENGE TO THE WORLD.

New York, Aug. 13, 1877.

FOR FOREST AND STREAM.

DEAR SIR—I notice in your issue of Aug. 9 a notice to the effect that Mr. James Shaw, of Manchester, Eng., has issued a challenge to shoot at fifty pigeons against any man in the world for £500 a side. If Mr. Shaw's challenge is a bona fide one I accept it and have to-day deposited \$500 in the hands of the FOREST AND STREAM Publishing Co. I will allow Mr. Shaw £50 for expenses coming here, or if he will deposit a like amount in the hands of the Editor of Bell's Life and allow me £50 for expenses to England, I will shoot a match with him there; fifty birds, 1 oz. or 1 1/4 oz. shot, ordinary rules to govern. "Put up or shut up" is my motto. If not accepted by Mr. Shaw this is open to any man in the world.

A. H. BOGARDUS.

CHAMPIONSHIP MEDAL.—The shoot for the Championship Medal of America, offered by Captain Bogardus, takes place to-day, at 10 A. M., at the Brooklyn Driving Park, Parkville, L. I. All the crack shots of the country are expected; among others Abe Kleiseman, T. J. South, Miles Johnston and E. W. Tinker. Admission 50 cents; shooters free. Boats leave 23d street, North River; Piers No. 8 and 1 every hour, connecting with cars at Bay Ridge for Parkville, near the park, Coney Island horse cars, from Hamilton, Fulton and Catharine Ferries, direct to the park, leave every five minutes. Horse cars from Atlantic, Fulton and Wall street Ferries connecting with Prospect Park and Coney Island cars to Parkville Station.

MASSACHUSETTS—Worcester.—Sportsmen of this city (Spencer, Oakham and Rutland) had a field day with shot-guns and glass balls at Rutland, Aug. 2. Each competitor was allowed 40 shots in courses of 10, and the balls were given 18 yards rise. The scores were as follows:

Table with columns for shooter names and scores. Includes Worcester Club, Spencer Club, Oakham Club, and Rutland Club.

Whole number of balls 800, 505 of which were broken.

Worcester.—The second shooting tournament, under the auspices of the Fitchburg Sportsmen's Club, was held at the Fair Grounds, August 4th. The parties in the ball trap shooting—10 balls at 30 yards; 10 yards apart, were secured by the following persons: First—\$10, W. S. Jones, of Ayer; Second—\$5, F. D. Whittaker, of Fitchburg; Third—\$3, S. W. Putnam, of Fitchburg; Fourth—\$2, George W. Cann, of Fitchburg. The ties for the fourth prize were shot off by Messrs. Cann, McKay and Wright. Mr. Cann broke three balls out of five, and secured the fourth prize. Messrs. John Choate, H. M. Sanders and E. T. Robie failed to break a ball, and the leather medal was awarded by lot. During the day 675 shots were fired at the glass balls, and 260 balls broken.

Fitchburg, Aug. 4.—The second shooting match of the Fitchburg Sportsmen's Club was held at the Fair Grounds with the following scores in the ball trap shooting, 10 balls at 30 yards, 10 yards apart: W. S. Jones, 10; F. D. Whittaker, 8; S. W. Putnam, 7; W. B. Haskell, G. W. Cann, B. W. McKay, H. Wright, 6 each; E. D. Stone, H. C. Patterson, D. S. Woodworth, J. E. Stanley, 5 each; C. E. Sheldon, H. C. Newell, W. H. Richardson, J. N. Dodge, 4 each; R. C. Hawkins, J. C. Howard, E. N. Choate, F. J. Noble, 3 each. Prizes of \$10, \$5, \$3, and \$2 were awarded, G. W. Cann winning the fourth, shooting off in the tie.

RHODE ISLAND—Newport, Aug. 6.—Grounds of the Narragansett Gun Club, thirty yards rise, eighty yards fall. First Match—P. Lorillard, Jr., ten straight birds; P. Lorillard, Sr., five out of ten. Second Match—P. Lorillard, Jr., four out of five; P. Lorillard, Sr., three out of five. Third Match—Contestants tied on three birds each out of five; tie decided in favor of P. Lorillard, Sr.

PENNSYLVANIA—Petroleum Centre.—The "Fur, Fin and Feather" Club held a series of matches Aug. 4. First match, 5 balls each, \$1 entrance, three prizes:

Table with columns for shooter names and scores for the Petroleum Centre match.

On ties Van Syckle and Davis divided first, H. Metherell won second, and I. G. Davis third. Second match, 10 balls each, \$2 entrance.

Table with columns for shooter names and scores for the second match.

Third match, 5 single pigeons, \$5 entrance, three prizes; 50, 30 and 20 per cent.

Table with columns for shooter names and scores for the third match.

H. G. Davis won first prize, W. B. Davis second, Wilcox and Scott dividing third.

Table with columns for shooter names and scores for the fourth match.

Davis, Sr., won first prize, Frye second, H. G. Davis third. Fifth match, 3 birds each, \$3 entrance, two prizes.

Table with columns for shooter names and scores for the fifth match.

H. G. Davis won first, Frye and Davis, Sr., divided second money.

Table with columns for shooter names and scores for the sixth match.

Wilcox and Davis divided first, A. J. Lewis won second. Last match, 5 balls each, \$1 entrance.

Table with columns for shooter names and scores for the last match.

A. J. Lewis and W. B. Davis divided first and second money.

Mansfield, Aug. 10.—Glass ball shoot; prize, a silver cup distance, 15 yards; 20 balls.

Table with columns for shooter names and scores for the Mansfield shoot.

Bedell and Ward shoot off their tie next week.

NEWPORT—Narragansett Gun Club Grounds, Aug. 13.—Match open to the Narragansett, Jerome Park, Philadelphia and Somerset gun clubs, for prize cup presented by Mr. J. G. Bennett; handicap distances, ten birds each, five traps, 80 yards fall; Hurlingham rules governing:

Table with columns for shooter names and scores for the Newport match.

C. B. Moore, 7; F. B. Sands, 1; Lawrence Curtis, 7; Francis Van Buren, 7; Walter Edden, 4; W. W. Dandee, 3; G. D. E. Wagstaff, 7; S. S. Howland, 5; Pierre Lorillard, Jr., 5; Danell Swan, 2. Ties on nine—Howard, 2; Davis, 3; Belmont, 1; Balfour, 1.



We present our readers this week with a cut of the elegant silver cup above mentioned, which was presented to the Narragansett Gun Club by Mr. James Gordon Bennett. This cup was manufactured to order by Messrs. Tiffany & Co., and is of sterling silver, the main part of the surface being "satin" finished or frosted. The vase is classic in outline, flaring toward the top, which is open. At either side is a finely modeled pigeon, hanging by the feet, dead. The front is adorned with an effigy in relief of a marksman with gun in hand, and so perfectly is this figure executed that every thread of the garments is seen as plainly as in reality, and even the texture of the skin is easily discernible. On the reverse appears the name BENNETT CUP in raised block letters, which, being burnished, stands out in striking relief against the frosted surface. Around the lower part of the vase is a wide border of laurel, which, with the sculptured figures, is fluted in a peculiar and beautiful manner. The height, including the ebony base on which it stands, is 20 inches.

NEW YORK—Oxford.—The sporting club had a trial of skill with shot guns Aug. 6th, shooting from three traps, fifteen shots, for prizes of \$5, \$3 and \$2. The result was as follows:—Alvin K. Bowdish, 11; W. S. Forrest, 10; James Forrest, 9; Albert Appleby, 7; J. W. Humphrey, 6; S. Joslin, 6; H. Pope, 6.

LONG ISLAND GUN CLUB.—Semi-monthly sweepstake shoot, Dexter Park, L. I. Classified sweepstakes; \$2 entry, three birds each, 25 yards rise, 80 yards boundary. This had eleven shooters; \$10 to first, \$7 to second, \$5 to third; ties miss and go out. The club rules to govern.

Table with columns for shooter names and scores for the Long Island Gun Club shoot.

Hatton and Reddin divided first money, and Thompson, Burditt and Fuller divided third money.

Handicap sweepstakes; \$2 entry; \$10 to first, \$7 to second, \$5 to third; tie miss and go out.

Table with columns for shooter names and scores for the handicap sweepstakes.

Thompson, Burditt and Langate divided first money; Hatton, Murphy and Reddin divided second money, and Eavan and Wynn divided third money.

Classified sweepstakes; \$2 entry, three birds each, 25 yards rise, 80 yards boundary; six contestants; \$8 to first and \$4 to the second.

Table with columns for shooter names and scores for the classified sweepstakes.

Time of shooting—Two hours and fifteen minutes.

Hurlingham Park.—A medal shoot was held at Hurlingham Park, Aug. 2; English rules to govern, ground traps, 20 yards rise, 80 yards boundary:

Table with columns for shooter names and scores for the Hurlingham Park shoot.

On ties J. E. Long became the winner. A sweepstakes of ten were also shot, which were won by Stenton, Long, Gillman, Avery and Eldridge, respectively.

Ohio, Cincinnati.—The following is the score of a shooting match held at Price's Hill, Aug. 8, 1877:

Table with columns for shooter names and scores for the Cincinnati match.

Tie on fourteen balls.

WISCONSIN, La Crosse.—Shoot held August 4; 20 glass balls each, 18 yards rise:

Table with columns for shooter names and scores for the Wisconsin match.

TENNESSEE—Nashville, Aug. 4.—Four matches at five single birds each, 21 yards rise. First match: Smith and Kirkman tied on 5; Kirkman won in the shoot off by 5 birds at 26 yards. Second match: Smith, Kirkman and Wells tied at 21, 26 and 31 yards; shoot off won by Wells, 3 birds at 31 yards. Third match: Jones, Nicholson, Smith and Welles tied on four birds; won by Jones, 5 birds at 26 yards. Fourth match: Smith, Wells, Nicholson, Jones and Kirkman tied on 5; Wells and Kirkman tied on 4 birds at 26 yards; shoot off won by Wells.

Tiffany & Co., Silversmiths, Jewelers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. TIFFANY & CO. are also the agents in America for Messrs. PATEK, PHILIPPE & Co., of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones General Jewelry, Bronzes and Artistic Pottery is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York.



Lakes and Resorts for Sportsmen.

Metropolitan Hotel, WASHINGTON, D. C.; Carrollton Hotel, BALTIMORE, Md.

R. B. Coleman & Co., Proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.

THE METROPOLITAN is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and re-furnished throughout.

R. B. COLEMAN & CO. CROSSMOUNT HOUSE, ALEXANDRIA BAY, JEFFERSON CO., N. Y.

THIS HOUSE, RECENTLY REBUILT and elegantly furnished, is now open for visitors.

Curlew Bay Club House is open to the public as a Sportsman's Home, where can be found plenty of shooting and fishing.

Bay Shooting of all Varieties. SHIMNECOCK BAY THE BEST SHOOTING GROUND IN THE VICINITY OF NEW YORK.

COUNTRY BOARD and sporting; good rooms, sandy pine woods, mountain air, lake fishing.

SEA CLIFF HOUSE, SEA CLIFF, L. I., OPENS for the season 1877, on May 1, at rates to suit the times.

Sportsmen's Routes. NORTHERN RAILWAY OF CANADA AND COLLINGWOOD LINE.

Only first-class route to the beautiful inland lakes of CANADA AND LAKE SUPERIOR.

TROUT FISHING! The Wisconsin Central Railroad THROUGH TO LAKE SUPERIOR.

Excursion Tickets from Chicago to Ashland and return for \$20 are sold at 33 1/2 cent, or the C. M. & St. Paul, Madison Street Depot, Chicago.

Excursion Tickets from Chicago to Ashland and return for \$20 are sold at 33 1/2 cent, or the C. M. & St. Paul, Madison Street Depot, Chicago.

Sportsmen's Routes.

Central Railroad OF NEW JERSEY.

NEW YORK AND LONG BRANCH DIVISION. REDUCED RATES FOR THE SEASON.

Express Train Time between New York and Long Branch, 1 hour and 20 minutes.

THROUGH PULLMAN PARLOR CARS. Commencing June 25, 1877, trains leave New York, foot of Liberty street, for East Bank, Long Branch, Ocean Grove, Sea Girt, etc.

LONG ISLAND RAILROAD. JUNE 17, 1877. Ferryboats leave James' Slip, N. Y., thirty minutes, and from Thirty-fourth street, E. R., fifteen minutes previous to departure of trains.

For Greenport, Sag Harbor, Riverhead, and intermediate stations, at 8:44, 9:03 A. M., 9:30, 4:06 P. M. SUNDAYS from Brooklyn at 4:30 A. M.

For Patchogue, etc., at 9:03 A. M., 2:00, 4:45, 5:23, 6:03 P. M. SUNDAYS, 9:15 A. M.

For Port Jefferson, etc., at 10:00 A. M., 3:30, 5:05 P. M. SUNDAYS, 9:30 A. M.

Ticket offices in New York at James' Slip and 34th street ferries, at the offices of Westcott's Long Island Express Co., 7 Park Place, 765 Broadway, 942 Broadway, Grand Central Depot, 42d St., in Brooklyn, 353 Washington St., in Brooklyn, E. D., 79 Fourth street.

Montclair & Greenwood Lake Railway Time Table, Depots foot of Cortlandt and Desbrosses Sts.

COMMENCING MAY 21, 1877. Trains leave New York, 8:30 A. M., 4:30 P. M. Connect with boat, and arrive at Amberg 11:30 A. M., 1:30 P. M., leave Amberg, 7 A. M., 4:05 P. M.

People's Line Steamers BETWEEN NEW YORK AND ALBANY.

The most comfortable and cleanest route for SPORTSMEN OR PLEASURE SEEKERS Going to or returning from The Thousand Islands of the St. Lawrence, The Great Northern or Adirondack Wilderness, Lake George, Lake Champlain, The White and Frazerona Mountains, Saratoga, Trenton, Niagara, Sharon and Richfield Springs, Coopers-town (on Otsego Lake), or any of the favorite summer routes North or West.

Sportsman's Route. CANADA, SOUTHERN RAILWAY. Direct Connections at Buffalo with New York Central and Erie Railway.

DOGS CARRIED FREE and given special attention. THROUGH CARS—FAST TIME AIR LINE—STEEL RAILS.

FRANK E. SNOW, G. P. & T. Agent, Detroit.

Sportsmen's Routes.

A BUFFALO HUNT ON THE Atchison, Topeka and Santa Fe Railway.

THE NEW ROUTE FOR KANSAS & COLORADO SPECIAL ATTENTION TO SPORTSMEN.

For maps, tickets, and gen'l information, apply to H. NUTTING, Gen'l Eastern Agent, 234 Broadway, New York.

Old Dominion Line. The steamers of this Line reach some of the finest waterfowl and upland shooting sections in the country.

Fall River Line, FOR BOSTON AND THE EAST. MAMMOTH PALACE STEAMERS BRISTOL AND PROVIDENCE.

FOR FLORIDA FOR THROUGH TICKETS TO FERNANDINA, JACKSONVILLE, ST. AUGUSTINE, SANFORD, ENTERPRISE, and intermediate landings on ST. JOHN'S RIVER and interior points in FLORIDA.

FOR BOSTON AND THE EAST. MAMMOTH PALACE STEAMERS BRISTOL AND PROVIDENCE. The best and most direct route to the Fishing and Hunting resorts of Cape Cod, and Rangeley, and Moosehead Lakes, etc.

FOR FLORIDA FOR THROUGH TICKETS TO FERNANDINA, JACKSONVILLE, ST. AUGUSTINE, SANFORD, ENTERPRISE, and intermediate landings on ST. JOHN'S RIVER and interior points in FLORIDA.

"The Bermudas." NOW A FAVORITE AND DELIGHTFUL hours from New York, and being surrounded by the warm waters of the Gulf Stream enjoys an equable temperature of about 70 deg.

THE "FISHING LINE." Brook Trout, Grayling and Black Bass Fisheries OF NORTHERN MICHIGAN, VIA Grand Rapids and Indiana Railroad.

St. Paul and St. Louis Short Line. Burlington, C. Rapids & N'rt'n Railway. QUICKEST, CHEAPEST AND BEST!

CHICAGO & ALTON RAILROAD, THE ONLY DIRECT RAILROAD from Chicago to St. Louis, and Chicago to Kansas City, WITHOUT CHANGE OF CARS.

SPORTSMEN will find splendid shooting on the line of this road; prairie chicken, geese, ducks, brant, quail, etc.

General Manager, JAMES CHARLTON, General Passenger Agent, Chicago, Ill.

Sportsmen's Routes.

TO SPORTSMEN: THE PENNSYLVANIA R.R. CO.

Superior Facilities afforded by their lines for reaching most of the FLYING PARKS and RACE COURSES in the Middle States.

GUNNING AND FISHING in Pennsylvania and New Jersey. EXCURSION TICKETS are sold at the offices of the Company in all the principal cities.

NEW HAVEN, HARTFORD, SPRINGFIELD, White Mountains, Mount Mansfield, Lakes Memphremagog and Willoughby, Montreal and Quebec.

NEW JERSEY AND NEW YORK RAILWAY. Leave New York via Erie Ferry, foot of Chambers street.

STONINGTON LINE. FOR BOSTON AND ALL POINTS EAST. REDUCED FARE!

St. Paul and St. Louis Short Line. Burlington, C. Rapids & N'rt'n Railway. QUICKEST, CHEAPEST AND BEST!

CHICAGO & ALTON RAILROAD, THE ONLY DIRECT RAILROAD from Chicago to St. Louis, and Chicago to Kansas City, WITHOUT CHANGE OF CARS.

SPORTSMEN will find splendid shooting on the line of this road; prairie chicken, geese, ducks, brant, quail, etc.

General Manager, JAMES CHARLTON, General Passenger Agent, Chicago, Ill.

CHICAGO & ALTON RAILROAD, THE ONLY DIRECT RAILROAD from Chicago to St. Louis, and Chicago to Kansas City, WITHOUT CHANGE OF CARS.

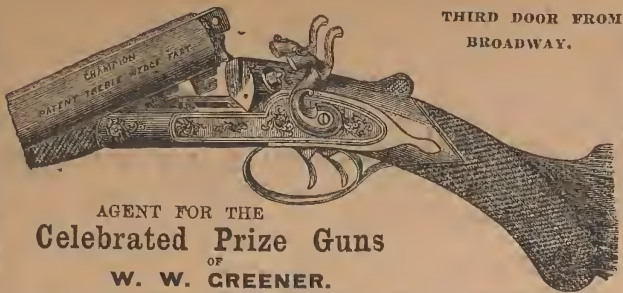
SPORTSMEN will find splendid shooting on the line of this road; prairie chicken, geese, ducks, brant, quail, etc.

General Manager, JAMES CHARLTON, General Passenger Agent, Chicago, Ill.



**HENRY C. SQUIRES,**  
No. 1 CORTLANDT STREET,

THIRD DOOR FROM  
BROADWAY.



AGENT FOR THE  
**Celebrated Prize Guns**  
OF  
**W. W. GREENER.**

Winner of the Missouri Silver Cup in 1876, presented by Mr. Parry, hunting all best London makers.

Winner of London Gun Trial, 1873, beating 102 guns.

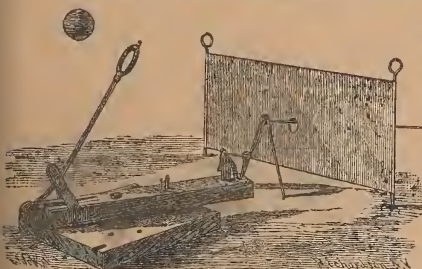
These guns have been winners in every trial during the last three years, competing with all the first-class makers in England. The shooting of every gun is guaranteed, and prices as low as consistent with good work. Guns built to exact order of sportsmen. I keep the best selected stock of guns by all the other makers to be found in this city, including Scott, Webber, Remington, Parker and Fox, Marshall's new Glass Ball Trap, \$5; three traps, \$12. English chilled shot, all sizes and in any quantities. Agent for Blinnar powder. Complete outfits for hunting and camping. Best Breech-Loader ever offered in the United States for \$35. Wholesale Agent for Holabird's Shooting Suits, and Camp Lounge Company.



**STODDARD'S**  
**CARTRIDGE LOADING IMPLEMENT,**  
COMBINING SEVEN DIFFERENT TOOLS,  
Cap Expeller, Recapper, Loader and Tube, Creaser, Cutter  
Crimper and Shell Extractor.

**NO. 10 NOW READY.**  
Perfect for all the operations possible in the manipulation of Paper or Metal shells for Pre-Loaders.  
Length, 4 1/2 inches. Nickel Plated. Weight 10 ounces.  
All the operations are perfect, and suitable for any shell.  
**AWARDED BOTH MEDAL AND DIPLOMA AT CENTENNIAL EXHIBITION.**  
**PRICE, \$6.**  
Circulars sent on application. Send postal order or check to  
**C. J. STODDARD & CO.,**  
Lock-Box 192, Washington, D. C.  
LIBERAL DISCOUNT TO THE TRADE.

**HUBER & MERWIN'S CHAMPION BALL TRAP.**



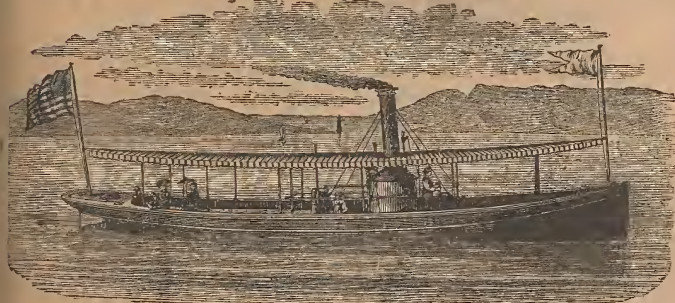
We call the attention of the fraternity to the above trap, claiming to be the *plus ultra*. It combines compactness with durability, and is arranged, by a swivel on the bed-plate, to throw a ball in any direction or at any elevation unknown to the shooter, a screen preventing his seeing the direction in which the trap is set.  
The spring, as the cut will show, is made of a steel rod or wire, bent spirally at the point of attachment, thus receiving the concussion its entire length, and preventing breakage.

FOR SALE BY  
**BARTON & CO., Sole Agents,**

337 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP, for durability and perfection of its operation, superior to them all, and take pleasure in recommending the "Champion" to sporting clubs and my friends. (Signed) **IRA A. PAINE.**  
Aug 17

**CENTENNIAL EXPOSITION MEDAL**  
AWARDED FOR  
**STEAM LAUNCHES.**



**N. Y. SAFETY STEAM POWER CO**  
30 Cortlandt Street, New York.

GIVE SPECIAL ATTENTION TO THE BUILDING OF  
**LAUNCHES AND THEIR MACHINERY,**  
And will furnish them complete in every particular, fitted either as Swift Racers, Fast Pleasure Boats, Party Boats, Fishing Boats, Ship's Tenders, or Ferry Boats. Or will supply the MACHINERY, complete. Also models, drawings and moulds to parties preferring to build their own boats.  
**SEND FOR DESCRIPTIVE CIRCULAR.**

**Folding Pocket Mosquito Bar.**

A most ingenious device for campers, tourists and travelers. Can be used at home or abroad, and will last a lifetime. It weighs less than a pound, and no trouble to carry. Can be put up or taken down in half a minute. No camping outfit complete without it. Every one warranted. All complete, with net, \$1.50. Sent on receipt of price. Address  
**A. A. COWING,**  
Watkins, N. Y.



**Yachting Suits**  
of

**U. S. NAVY STANDARD BLUE FLANNEL.**  
Shirts, \$3.50; Pants \$3.50; Caps, \$1.  
Write for descriptive catalogue.  
**GEO. C. HENNING,**  
Washington City.



**Chas. F. ORVIS,**  
MANUFACTURER OF  
**FINE FISHING TACKLE,**  
**MANCHESTER, VERMONT.**  
**VERY STRONG AND DURABLE ARTIFICIAL FLIES.**  
Fully Equal to any Made.  
For Trout, \$1.50 per dozen. Triple Hook Flies, \$3.50 per dozen. For Bass, \$2.50 to \$4.50 per dozen.  
Any variety to order per sample.  
Refer to Dr. J. R. ROMBEY, Keeseville, N. Y.; Com. L. J. Beardsley, Little Falls, N. Y.  
SEND FOR DESCRIPTIVE CATALOGUE. MENTION "FOREST AND STREAM."

**THE UNITED STATES CARTRIDGE COMPANY,**  
LOWELL, MASS.

Manufacturers of the  
**CENTRAL FIRE, SOLID HEAD,**  
**BRASS SHELL, RE-LOADING CARTRIDGE,**  
Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.  
Special attention paid to orders for TARGET PRACTICE CARTRIDGES.  
Send for Illustrated Catalogue.  
**WALLACE & SONS, Agents, N. Y. City.**

**Sportsmen's Goods.**

**THE**  
**Florence Oil Stove.**  
Made of Galvanized Cast Iron.  
Will Last a Life Time.  
Especially for Sportsmen and Picnic Parties. Complete outfit consisting of Stove, Oven, Kettle and Steamer combined, Coffee Pot, Two Tin Plates and Oven Pans, Two Knives  
New No. 0, \$4.50, and Forks, One Frying Pan, Two Pint Cups, Two Spoons, and One Camp Chest for \$12.  
*A absolutely Safe, Cannot Explode.* Also 3 sizes Cooking and Heating Stoves for family purposes. Manufactured by  
**FLORENCE MACHINE COMPANY,**  
FLORENCE, MASS.  
Send for Circular. Agents Wanted.  
\$1.25 4t

**POCKET BEDSTEAD.**  
TRADE MARK PATENTED.  
SIDE STICKS CUT ON CAMP GROUND.  
CAMP-LOUNGE FOLDED.  
PUT UP IN ONE MINUTE.  
This Bed, for Camp, Lawn, House and Office. Weight but 2 1/2 lbs.; is one of the greatest and most economical luxuries ever invented. Price \$2.50.  
W. MASON, Albany, N. Y.  
\$1.19 3m

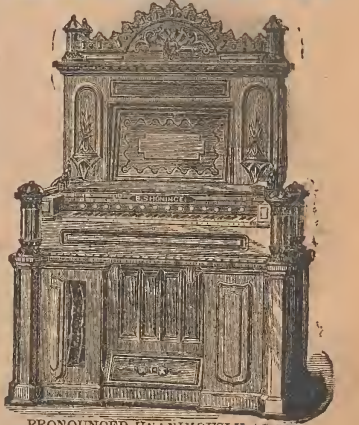
**Amusements, Etc.**

**GILMORE'S CONCERT GARDEN.**  
OPEN EVERY NIGHT IN THE WEEK WITH  
GILMORE'S GREAT MILITARY BAND.  
SPECIAL PROGRAMMES SUNDAY EVENINGS.  
50 cents admission. Boxes seating four, \$3.

**Zoological Garden.**  
FAIRMOUNT PARK, PHILADELPHIA.  
Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 6 17

**THE GREAT NEW YORK AQUARIUM.** Broadway and 35th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 haw fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments.  
Coney Island Aquarium now open for the summer.

Highest Honors  
**CENTENNIAL WORLD'S AIR, 1876.**  
**SHONINGER ORGANS.**



**PRONOUNCED UNANIMOUSLY AS THE**  
**Best Instruments.**  
Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:  
"The B. SHONINGER ORGAN CO.'S exhibit was the best instrument at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, less liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either shrink, swell or split." THE ONLY ORGANS AWARDED THIS HONOR.  
This Medal and Award was granted after the most severe competition of the best makers, before one of the most competent juries ever assembled.  
New styles and prices just issued, which are in accordance with our rule, the BEST ORGANS for the least money.  
We are prepared to appoint a few new Agents. Illustrated Catalogues mailed, postpaid, upon application to  
**B. SHONINGER ORGAN CO.,**  
97 to 123 Chestnut Street,  
NEW HAVEN, CONN.

**H. WALDSTEIN**  
**OPTICIAN,**  
545 Broadway, New York,

Has received the highest award at the Centennial Exposition for his fine Glasses, especially Opera and Field Glasses. His display at 545 Broadway of  
**TELESCOPES, FIELD, MARINE and OPERA GLASSES, MICROSCOPES, SPECTACLES and EYE GLASSES, ARTIFICIAL HUMAN EYES, Etc.,**  
Is really wonderful. Illustrated catalogue mailed on receipt of postage of four cents.

ESTABLISHED 40.  
**Magic Lanterns and Stereopticons.**  
**E. & H. T. ANTHONY & CO.,** 591 Broadway, N. Y., opposite Metropolitan. Stereoscopes and Views; Graphoscopes; Chromos and Frames; Albums, Photographs of Zebroniens, Photographic Transparencies, Convex Glass, Photographic Materials. Awarded First Premium at Vienna and Philadelphia. dec25

**Painting.**  
**PAINTING.**

**EVERY ONE THEIR OWN PAINTER.**  
50 Per Cent. Saved.  
We are manufacturing a very fine Pure Ready-mixed Paint, mixed in such a manner that any ordinary stable or farm hand can make as good a job of painting as a painter can with paint mixed in the old way. This is because our paint does not set quick, and thus show marks of the brush. We sell it lower than any materials can be bought in the ordinary way, and say right in certain sized orders.  
Any gentleman wishing to paint up his buildings at small expense had better write, and have sent free our book.  
Address 260 Front street,  
**INGERSOLL PAINT WORKS.**  
Jes1

Guns, Rifles, Etc.

SPORTSMEN

Will find a select assortment of Guns, Rifles, Revolvers, Ammunition, And all goods appertaining thereto.

Special Attention is invited to Our New SMITH'S PATENT REVOLVERS, In four sizes of 22, 27, 32 and 41-100 cal.

A COMPLETE ASSORTMENT OF MAYNARD RIFLES SHOT GUNS ETC. send for Circular.

FOWLER & FULTON, NO. 300 BROADWAY, N. Y.

Dennison's Targets From 25 to 1000 Yd. Range. TARGET PASTERS AND Score Cards. SOLD BY Dealers in Sporting Goods.

On receipt of TEN CENTS a 100-YARD TARGET will be sent by mail, with circular and sam. pics, by DENNISON & CO., 198 Broadway, N. Y.

DENNISON'S PATENT TOURISTS' TAGS. Convenient and Handy for attaching to Fishing Rods, Gun Cases, and all sorts of Sportsmen's Baggage.

Sportmen's Goods.

W. H. HOLABIRD, Manufacturer of

Specialties in Clothing FOR SPORTSMEN, Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular.

Holabird's New Game Bag; weighs 13 ounces. The most convenient and coolest garment ever offered to sportsmen.

Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style.

W. H. HOLABIRD, Valparaiso, Ind. Ask your gun dealer for Holabird's goods.

SOLA HAT.



This Hat is made of waterproof duck, dead grass color, and in the same style as East India Hats; is the coolest and best yet offered to sportsmen.

Absolute Guarantee against Sunstroke. For sale by all dealers in sportsmen's goods, or sent by mail, securely packed, postage prepaid, price \$3.

THOMSON & SON, 301 Broadway, New York. P. O. box 1,016. Send stamp for illustrated catalogue of sportsmen's goods.

Seydel & Co's Pocket Hammock. No. 1, weight only 1 1/2 lbs.; bears 1,300 lbs.; price \$4. A most luxurious Couch, Seat, Swing, Etc.



Circulars may be had by addressing MCCOY & CO., 347 and 136 Duane Street, N. Y.

HAMMOCKS FOR LAWNS AND EXCURSIONS

Tents, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seesaws, etc. Send for Illustrated Circular, G. WEBSTER PECK, Manufacturers' Agents, 110 Chambers St., N. Y.

W. & C. SCOTT & SONS.



First Prize Medal and Diploma, awarded at the Centennial Exhibition, for excellence of workmanship and material in their Premier Quality and medium grades.

marked the PREMIER QUALITY

(Extract from FOREST AND STREAM, New York, December 26, 1876, Constituted by one of the Judges of Awards of Guns at the Centennial.)

"This action (The Triple Lever Grip) combines in the highest degree strength and simplicity, and most rapidly secure the favor of all who test its merits."

COMPENSATING LUMP. Strongly recommended. It is invaluable, and should be ordered on every gun. Costs about \$10 extra. Choke-bored, medium or full. Our guns to be had of the principal dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.



Paper and Metallic Shells

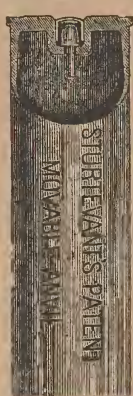
Breech-Loading Shot Guns,

Manufactured by the UNION METALLIC CARTRIDGE CO., BRIDGEPORT, CONN.

THE STURTEVANT SHELLS are the easiest reloaded. Do not have to unscrew the head nor use an awl to remove the exploded caps.

THE BERDAN PATENT SHELLS, new model, with Hobbs' patent waterproof primers, never miss fire, and are highly prized by all that have used them.

PAPER SHELLS.—By repeated experiments and great outlay for improved materials, and machinery made expressly for the purpose, we can now warrant our BROWN PAPER SHELLS equal to any imported. They are sure fire, and will not burst in the gun.



"St. Louis Conical Base Paper Shell."



Having made important improvements in our Shell, we can safely recommend them as equal, if not superior, in quality to any Paper Shell manufactured in this country or in Europe.

Among the advantages claimed for these Shells, are: A saving of 25 per cent. in the use of powder; also the great decrease in recoil. The sizes made are No. 10—2 1/2, 2 3/4, and 3 inches; No. 12—2 1/2, 2 3/4, and 3 1/2 inches. Longer

Shells will be made at extra cost. They are not mailable. Sample, 100, sent by express on receipt of \$1.15 for No. 12; \$1.20 for No. 10.

Factory and office, No. 2, 259 De Kalb street, St. Louis, Mo.

St. Louis Patent Shell Manufacturing Company.

Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

SPORTSMEN'S CLUBS AND AMATEURS.

THE PATENT ROUGH BALL—The only Ball that will break sure when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Trad's, March 13, 1878.

Geo. E. Hart & Co.,

NEWARK, N. J.

TRADE SUPPLIED.

Cotton Duck, every width & weight, cut to any length,

Oiled do. manufactured by steam power.

Saturated, not enameled,

Slings for disabled Horses,

thoroughly harnessed, \$10 each.

Lock Pouches, Messenger Bags,

Nose Bags at wholesale,

anything and

everything that

can be made

of canvas.

Arrangement of Tent Catalogues.

No. 1. Artist's & Camping.

2. Military.

3. Lawn and Garden.

4. Camp Meeting & Chapel.

5. Circus & Show.

6. Base Ball, Cricket, &c.

7. Sundries.

John Boyle,

199, 201, 203

Fulton St.

N. Y.

Palmetto Tents. 10 feet square, \$20 each. 7 1/2 " " 7 " "

Boyle's U. S. Tent and Mail Bag Manufy, FULTON ST., NEW YORK.

VANITY FAIR FOR MEERSCHAUM AND CIGARETTES.

Our Cigarettes are as fine as can be produced. Only the best French Cigarette paper is used, which is free from mineral and other injurious substances.

TRY L'AMERIQUE,

THE BEST CIGARETTES, AND JUST THE THING FOR SUMMER SMOKING.

Mixture of Per'que and Vanity Fair. Best French Cigarette Paper only used. Sample by mail, Fifteen cents. Ask your dealer for them.

WM. S. KIMBALL & CO., Rochester, New York.

Guns, Rifles, Etc.

Sportsman's Depot.

(ESTABLISHED 1834.) First premium at World's Fair at New York and Centennial Exhibition.



JOHN KRIDER,

N. E. Cor. Second and Walnut Sts., Philad.

GUNS, RIFLES, PISTOLS.

Fishing Tackle, Rods, Reels, Lines, Hooks, Flies,

Leaders, Snoods, Artificial Bait, Fly Books, Etc., Etc.

Salmon, Bass and Trout Flies Made to Order

ALSO

"Kriders" Celebrated Center Enamel Split and

Glued Bamboo Rods.

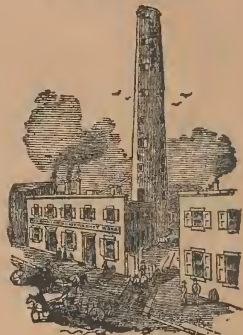
Birds' Eggs and Birds' Skins in Great Varieties—

Taxidermy in all its branches.

Sparr's Patent Dog Biscuits

Repairing of all kinds.

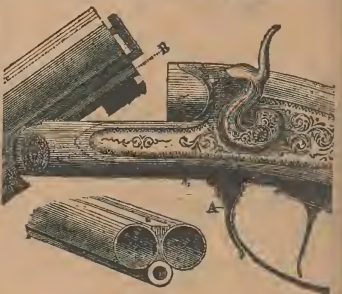
Founded July 4, 1893.



Thos. W. Sparks,

Shot & Bar Lead MANUFACTURER.

Office 121 Walnut Street, Philadelphia.



THREE BARRELED

Breech-Loading Guns.

(TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

Represented by W. Holberton, 102 Nassau street, New York.

SEND FOR CIRCULAR.

W. H. BAKER,

Sept. 30:5m

Listic, Broome Co., N. Y.

Attention, Sportsmen!



The Boss Loader of the World. Each Loader adapts to both 10 and 12-gauge metal or paper shells of any length, each shell being accurately charged and wadded complete in one operation.

Amount of charge readily adjusted. Is substantial, safe and reliable. Price \$3. Discount to trade. All orders for sample loaders must contain remittance. Manufactured only by

CAMP & WISE, Stoughton, Dane County, Wis.

# FOREST & STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

NEW YORK, THURSDAY, AUGUST 23, 1877.

Volume 9.—No. 3.  
{No. 111 Fulton St., N. Y.

### THE WOODLAND.

Yon woodland, like the human mind,  
Hath many a phase of dark and light;  
Now dim with shadows wandering blind,  
Now radiant with fair shapes of light;  
They softly come, they softly go,  
Capricious as the vagrant wind,—  
Nature's vague thoughts in gloom or glow,  
That leave no airiest trace behind.  
No trace, no trace; yet wherefore thus  
Do shade and beam our spirits stir?  
Ah! Nature may be cold to us,  
But we are strangely moved by her!  
The wild bird's strain, the breeze spray,  
Each hour with sure earth-changes rife,  
Hint more than all the sages say,  
Or poets sing, of death, and life!  
For, truths half drawn from Nature's breast,  
Through subtlest types of form and tone,  
O'erweigh what man at most hath guessed,  
While heeding his own heart alone.  
And midway betwixt heaven and us  
Stands Nature, in her fadeless grace,  
Still pointing to our Father's house,  
His glory on her mystic face

PAUL H. HAYNE.

### A Moose Hunt in Canada.

OVERTAKEN by the snowstorm, Nimrod and I were tramping our weary way homeward. We had spent the whole of the day wandering over the hills in search of deer sign, but had not struck the trail of any animal larger than a fox, and at last had given up hunting, the very dogs partaking of our disgust, and keeping so unpleasantly close to heel as to tread upon our snowshoes and add to our discomfort by giving us an occasional header in a snow-drift. Gladly we welcomed the shelter of Nimrod's house, and retired to his "den," where, under a cloud of smoke of our own raising, we sat before a roaring fire lamenting our ill success.

In its way, Nimrod's den was well worthy the attention of an antiquary. Almost every quarter of the globe had contributed to its adornment. Heads and antlers of the hart-beest, wild beast, springbok, blesbok, *et id genus omne*, as sagais, shields, boomerangs, etc., presented by a sporting friend in South Africa, formed one of the principal attractions. These were ably supported by antlers of the moose, caribou and deer, the product of his own prowess. Conspicuously over the fire-place a huge moose with antediluvian horns, pushed his head through the wall and surveyed the inmates of the room with sinister eye, so perfectly had the taxidermist performed his work. But the gem of the room was undoubtedly a pair of caribou antlers, placed immediately over the door, perfect in form and measuring nearly, if not quite, six feet from tip to tip.

Festooned upon the walls, and variously distributed about the room were fowling-pieces, rifles, pistols, swords and weapons of the chase innumerable. Of pistols alone there were eleven different kinds, ranging from the old blunderbuss and saw-handle down to the modern seven-shooter. To complete the picture, and make one feel perfectly at ease, there stood in one corner of the room a keg of C. & P., partly used and entirely unprotected from a spark from pipes or fire! Under the effects of the soothing pipe and a moderate *quantum* of the genial mountain dew, we were gradually thawing out and getting over our disappointment, when we saw the tall form of our Indian friend Sebatis stalking across the floor.

For an instant he surveyed us and our surroundings with a comprehensive glance that seemed to comprehend the situation, then appropriating a comfortable seat at the fireside, coolly pulled out his tobacco pouch, and began to fill his pipe, and then to light it and smoke in the most provoking manner, as if he had been spending a social evening with us, and every topic of conversation had been exhausted. As the readers of FOREST AND STREAM have already made the acquaintance of Sebatis (Vol. 7, p. 84) no further introduction is necessary, but while he is enjoying his pipe I shall avail myself of the opportunity to relate one or two anecdotes concerning him, which even he, with all his Indian stoicism, would enjoy as well as any one. Like all of his tribe he has a way of putting the cart before the horse, which renders some of his sayings

irresistibly comical. For instance: once when he and his father were out late one fall, trapping sable mink, shooting musquash (muskrats), etc., he happened upon a river driver's camp, where after he was made welcome one of the party said:

"Well, Sebatis my boy, what's the news?"

"Twenty-four musquash kill'm my father last night," replied the imperturbable Sebatis.

During my long acquaintance with him I can on'y recall one occasion upon which he at once and completely lost his stoical self-possession; but I must add that he would have been more than mortal had he retained it under the trying circumstances in which he was placed. It happened thus: E—, an English friend of mine, took a great fancy to Sebatis and wished to give him some token thereof at parting. Of the manifold possessions of E—, two articles were especially coveted by Sebatis. One was a common red clay Virginia pipe with a reed stem, worth altogether about ten cents; the other, an English-made pea-jacket of very stout serviceable cloth, very little the worse for wear, and worth some twenty dollars. Although I have said that each of these articles was coveted by Sebatis, it must be understood at the same time, that had he been called upon to make a choice, he would have selected the pea-jacket without a moment's hesitation, and it was the bare possibility of being presented with the pipe instead of the coat, which caused him in the most shameful manner to lose his habitual presence of mind. E— being about to return to England, Sebatis called one day to say good-bye to him. As we entered the room where Sebatis sat waiting for us, E— said:

"Oh, about giving Sebatis something, which do you think I had better give him, that pipe or the pea-jacket, you know he admired both of them immensely?"

"Perhaps it would be as well to leave the choice to him," I answered.

"How excessively stupid of me, of course it would. I say, Sebatis," he exclaimed, "which would you rather have as a present, that pipe or the pea-jacket? You know you thought both of them awful jolly."

The expression which passed over Sebatis' face was ludicrous beyond description; the idea that any one in their senses could for a moment hesitate as to which he would rather have, the coat or the pipe, was utterly incomprehensible to him, and in his struggle to gain utterance he incoherently muttered in reply:

"Pipe, coat, pipe!"

"Oh, so you would rather have the pipe would you?" said E—. "Well, it's a very jolly pipe, Sebatis; I'll go and get it for you."

For a moment poor Sebatis seemed paralyzed with horror and disappointment. Then with a powerful effort, mastering his emotion sufficiently to regain the power of speech, he frantically gesticulated toward the doorway through which E— had just made his exit, and cried to me in the most beseeching manner:

"Tell'im coat, tell'im coat, quick!"

I "told him coat," much to the amusement of E—, and Sebatis departed the happy possessor of both pipe and coat.

To resume: Fortunately for our patience, even the taciturnity of an Indian has its limits, and just as we were on the borders of despair, the oracle spoke.

"I come all way Big Lake to-day myself, everywhere find'em plenty sign moose; one yard, three moose; then little ways find'em sign old bull moose. S'pose we go hunt'em to-morrow, I come daylight."

At the conclusion of the sentence he took his departure without more ado. Evidently he did not seem to have any doubts about our eagerness for the fray, as he did not wait for any reply; and a sly twinkle in his eyes as he departed convinced us that he was not unacquainted with our bad luck in deer hunting.

An Indian's power of gaining information without asking questions is truly marvelous. A couple of rifles standing in a corner of the room, and our snow-shoes bearing the traces of recent use, furnished evidence of our having been out; and the snow-white coats of the hounds without any blood stains would indicate that we had not been successful. In a few moments we were completely roused from our lethargy, cleaning rifles, drying moccasins and attending to various matters important for the comfort of a well appointed hunt. Eleven

o'clock found everything packed and strapped in readiness for an early start. Nimrod was early astir, and roused me at daylight.

At breakfast we were honored with the company of Sebatis, who made his appearance accoutred for the hunt. He was accompanied by his brother Swarsin and his nephew little Joe, a noble looking Indian of gigantic stature. Breakfast over, we found the pony at the door, stowed with our packs and commissariat, and surrounded by the usual crowd of admirers.

The hounds, our old friend's "Mitchless," "Matagins," "Meyahlip" and "Obleckmo," with the addition of "Vic," a recent purchase of Nimrod's, were in high spirits. They had kept up an incessant baying since daylight, and instinctively seemed to "scent the battle from afar."

At Murdoch's camp, near McDoagal Lake, we were delayed for several hours by the temporary loss of two hounds, they having strayed off into the woods. Little Joe set off in pursuit, but did not succeed in recovering the truants until mid-day; when, all being in order again, we strapped on our snowshoes, and after a five-mile tramp reached our hunting-grounds. As the day was on the wane, Sebatis advised the postponement of any search for the moose until the next morning. His opinion being law in cases of this kind, we devoted the afternoon to building a camp and cutting firewood. Among our provisions was a quantity of sausages, and upon their being produced in order to have some cooked for dinner they were the source of much amusement. The Indians had never seen anything of the kind, and surveyed them with curious glances, then surrounded the pile and began quite an animated discussion as to what they were, fish, flesh or fowl.

"What you call'em?" said Sebatis, taking hold of some links, and gradually raising them from the pile until he had a string a couple of feet long pendant from his hand; "little Joe he say g—s, Injuns he don't eat'em."

It required some address to disabuse little Joe of his idea. We desired Sebatis to cook some of them, and as the savory odor saluted their olfactory they began to change their opinion, and, after tasting them, were enthusiastic in their praise, and ever after as long as a sausage remained in the locker, Sebatis, acting as cook, inquired:

"Well, what cook now, s'pose sausages?"

At day break we were off in gay spirits to beat up the quarters of the moose.

The snow-shoeing was as bad as it could be—a light fall of snow on a very slippery crust, in most places strong enough to bear one's weight. It would not have been easy to decide which was the most difficult, going up hill or coming down; but the latter, I think, was entitled to the palm.

We were standing upon the crest of a high hill, and it was necessary that we should descend to the valley with little noise, or without any if possible, as we feared to alarm the moose before we were ready for them. The approved plan for going down hill upon an icy crust is to squat down upon one's snowshoes, place the rifle (butt end foremost) under the left arm, leaving the right free to fend off—and away you go. If there were no obstacle the way, it would be comparatively easy; but to steer past tree trunks and other minor objects at the rate of ten miles an hour, without knocking one's brains out, is a feat, requiring much skill.

Nimrod led the way gallantly, followed, and by some means passed him. All went merrily until half way down, I collided with a tree and fell over backward. Nimrod ran into me, pitched over on his face, and rose, with the blood streaming from his nose. A noise like distant thunder announced the approach of little Joe. In vain we shook our fists at him—to stop was impossible; so we made frantic efforts and scrambled out of his way, and he passed like an avalanche. Nimrod and I tried it again, and arrived at the foot of the hill without any further mishap. Sebatis had got down quietly, and was justly indignant at our want of skill.

"You mak'em too much noise!" he said severely. "Scar'em moose; no use try hunt'em now."

We managed to pacify him, promised better fashions and resumed our march.

Just as we were beginning the ascent of another hill, we struck the well defined trail of some large animal.

"Moose he mak'em," whispered Sebatis; "by'em-by we find'em yard."



Fish Culture.

A MICHIGAN FISH COMMISSIONER ON HIS TRAVELS.

THE Michigan Fish Commission—whose humble servant I chance to be—very kindly granted me a few days vacation. I have just spent them in satisfying what has long been a deferred wish and hope, to-wit: a visit to my *early* brethren to the west of me, in their own "castles" and amid the implements and surroundings of their fish industrial labors. The choice I made and the manner of my vacation has left out a solitary regret. I account it my vacation of vacations, to be remembered and cherished so long as kindly courtesy and true friendship are the symbols, ay, the essence, of manhood and nobility. Do you think your readers (some of them very likely of the fastidious sect) would relish a "free and easy" discourse concerning some of the fishermen I impressed into my vacation, with now and then a passing allusion to some of the noteworthy objects interviewed during my journey? Well, July 12th, with the odious carpet-bag in hand, I put out. Dr. W. A. Pratt, Commissioner of Illinois, being my nearest of-fish-ial fish neighbor, I made straight for him. I found him some two miles from Elgin, on a large and beautiful farm, with improvements of the most approved patent, testifying the thrifty and progressive farmer. His elegant home, embowered with fruit tree, and shrub and plant and flower, receives additional embellishment by a large Trout Park, across the road from his house, in which not only sport the world-famed *Salmo fontinalis*, but also many other gaily tinted and graceful denizens of the brook and the pond. In the inclosure graze deer and elk. Rabbit and other game, *Feræ natura*, I saw bounding over heath and brake and up the craggy slopes, while springs, with full head, gush forth, warbling a delicious music from the several ravines. The highest knoll is marked by an observatory, from the summit of which a dull vision even cannot fail to take in a landscape of rarest outline and beauty. At your feet is the busy and beautiful city of Elgin, while far away stretch the fertile acres of the valley of the Fox. But, in the midst of all this luxuriousness of heath and home and deft surroundings, I detected one great need. Now, if you are a Yankee, you can guess it. All I saw seemed to say, "too good, too much for one. It should be, and I dreamed in my friend's chamber that night that erst while it would be shared and enjoyed by two. Fair Home, of—

"Two souls with but a single thought,  
Two hearts that beat as one."

From Elgin the doctor became my *compagnon de voyage*. After a delightful cup of coffee, we checked for Madison, Wis., the home of Mr. Welch, President of the Fish Commission. Arriving at Madison, we found our friend, Mr. Welch, busily engaged in the trial of an important suit before the Supreme Court, and from the ease with which he chopped logic, slung evidence, and cited authority to Beneh and Bar in the advocacy of his case, we felt compelled to esteem him no less an athlete in the arena of legal Titans than he is a confessed expert in the arts and love of pisciculture. Too engaged in his suit to be of us, he ordered his carriage to the Park Hotel for our use. Kind soul! Who but a grand fisherman, in the hurly-burly of a lawsuit, would have thought of that! The carriage did a splendid business that morning. Its occupants visited every main avenue, cross street, and almost every cranny of the capital of the Badgers, enjoying the whole immensely. Madison, girt by Lakes Mendota and Monona, with Waukesha, Kewonksa and Wingra as bright connecting links, can boast a plat on which to found a city, in contrast with which no town or city the country over can justly claim a site superior. It is more than beautiful. With the beautiful it unites the picturesque and the grand. Mr. W., being relieved from court, now joined us, and ordering a speck and span establishment from the livery, he straightened the ribbons for the State Hatchery, some four miles away. Wisconsin's Commissioner can drive too!

Wisconsin has achieved an excellent start in her fish works. She already has two large and well appointed hatcheries, a commodious and handsomely constructed superintendent's house, with barn and outhouses, several large ponds and fish preserves, and others still in process of erection. In one thing particularly is she ahead of nearly all the fish States. She is wise and rich enough to hold the fee simple of the land upon which the springs are situated and the improvements made. She has forty acres, all fenced, all being improved, and all paid for. No burly landlord comes to her Commission with itching palm for title or rent. Her State Fishery is on as independent a basis as are her other State institutions. That we enjoyed our acquaintance with Mr. Welch does not half express it. The following is our unanimous *verdict*: "A gentleman of the most approved brand. A live fish man—intelligent, outspoken, with 'nary' a concealment where duty and conviction are the spurs to action; as 'sassy' to his foes as he is genial and affable to his friends."

From Madison we ticketed for St. Paul, where reside two of Minnesota's Fish Commissioners. *En route*, about one hour's ride from Madison, our train, seemingly awakening all the echoes of Pluto's realm, came thundering down upon Devil's Lake. Why in the world it should go by the name of Devil's Lake I can't understand. There is nothing I could discern in the slightest degree Satanic about it. On the contrary, it is grand and sublime almost beyond conception. Devil's Lake, indeed! Better named Olympus. Jupiter

reaching water the deer wades in slowly, stops to drink and looks around for the most inviting chance of escape. Of course this is not the case when the dogs are close behind. The beautiful bright eye of this animal does not seem to be of much service in detecting enemies, at least its enemies among mankind. If the watcher be perfectly motionless he will not be discovered by the fleeing game. Let him but move though—almost a wink will betray him. I have known of deer jumping almost over watchers without seeming to be aware of their presence. I was once watching, with several others, at the edge of a river. We were all seated on one log, with nothing between us and the river except a fire, which watchers may always be allowed in winter. We had not been seated very long before we heard the hounds coming over the mountain, and presently an old doe jumped into the water opposite us. I supposed she would detect us at once, for there was nothing whatever to prevent her—nothing between us but the water. She never turned an inch from her course, but came directly toward us as though she intended walking over fire and all. When she had come to within a few steps of us I involuntarily let my hand fall to its place on the gun barrel, and that instant she was off like a flash; not fast enough, however, for the bullet.

Deer frequently seek safety by swimming down stream for a long distance. They will often sink themselves along the bank, where there is overhanging brush, with nothing but the nose above water. Such tactics put the hounds to a strong test. Some hounds seem to follow the water trail with as much ease as they would a land trail. I remember one in particular, said to have followed a deer in this manner for a mile! swimming over the same course the deer had gone an hour before. A strange phenomenon is this: A deer when killed in winter will float like a cork, whereas in summer it would sink. Old hunters maintain that the deer, in choosing his course of flight, will bear up stream in summer, down stream in winter. My observation has led me to believe this to be a mistake. Who would seek real sport must follow the hounds and hear.

SYCAMORE.

For Forest and Stream and Roll and Gen.

WAS IT A WATERSPOUT?

WE were sinking a shaft on the Old Gnard lode, Tom and I. The claim lay on the south slope of Silver Slope. Our windlass was set just at the head of Belmont canyon, and about one hundred feet above the level of its highest wash. The view from the mouth of our shaft embraced the Belmont Mountain on the west and southwest, the canyon due south, and to the east and south an almost endless vista of short canyons, broken peaks and rocky hills, stretching out past Coso toward the Panamint Mountains. About three miles from its head, in the Flat, the canyon forked, one prong going almost due west, the other obliquing southeast. The fork was caused by a range of red hills running nearly due north and south, and headed by a rugged peak abutting on the canyon, forcing its division into the forks before mentioned, and opposing an impassable barrier to its direct progress. In fact, any one could see at a glance that that hill was bluffing the canyon. One hot summer afternoon I was lazily gadding out rock at the bottom of the hole, then about seventeen feet deep. A rope hung down the shaft with a hitch on the windlass, so a fellow could shun up in case of Indians making it too hot for the windlass man to haul him out of the hole. I heard a curious muttering, muffled, rumbling sound, and Tom, poking his head around the windlass, yelled, "Earthquake!" and I just boomed up that rope like a lizard climbing a hot rock. I remember thinking that the walls of the shaft might come together and kiuder bury a feller, if I didn't hurry. But it wasn't an earthquake. Where we were standing, and in every direction but south, the sun was shining brightly, the air clear, and the sky free from clouds. To the southward, on a prolongation of the line of the canyon, and apparently ten or fifteen miles distant, was a dense bank of cloud reaching from the hills to heavens, and seemingly a mile in width. Out of this cloud came the noises I heard—noises as of mountains falling. The centre of the cloud was black as night, the outer edges like showers of rain in veils of mist. The cloud was in rapid motion toward us, and we heard with increasing distinctness the roaring of the wind which drove it. Where we were there was a strange and unquiet sense of stillness, a deadness, so to speak, in the air; the horrible noises of the cloud and wind seemed strangely out of place as they hurried to us through the intervening strata of dead air. We were afraid, and wanted to run, but where? The cloud was moving with such speed that there was no time for flight. Hardly a minute had elapsed since I left the shaft, and the cloud, then so distant, swept up and enveloped the red hill in the forks of the canyon. There were no longer noises in waves; we stood walled in by sound—sound had seized on space, was shutting out air, and paling the sunlight. We were helpless, too nerveless even to think, except in a dazed, confused way; we were under an influence before which our strength was as nothing—in the shadow of a death for which not even preparation was possible. Men can prepare for death in many forms, and brace themselves to meet it without visible shrinking; but what will, can meet the first shock of earthquake without feeling the presence of omnipotent power, and quailing with a sense of mortal weakness? With us the often-felt fear of the earthquake came back a thousand times intensified. Fortunately our suspense would, in any event, be of brief duration. On the red hill the cloud halted for a moment, then swept into the west fork of the canyon, and following its course, disappeared around the Belmont mountain. The feeling of relief when we saw it go was intense, and we felt not a bit ashamed of our fear when we looked again at the red hill. Although very steep on all sides, and an almost perpendicular wall on its canyon front (before the coming of the storm cloud its top was comparatively smooth and afforded sufficient soil for the support of several goodly tamarack and quite a grove of pinyon pine), after the passage of the cloud, not a tree was left on the hill, two or three were lying and hanging, stripped of limbs and foliage, half way down the rocky eastern slope—Tom said, as he turned our field glass to take in the top of the hill, "like the bodies of drowned men left stranded by a tide." Poor hill! It was washed, gullied, swept, gashed, and torn, its once bold front so changed and sorry looking that not even its oldest friend would have recognized the mountain owning the country, tree-crested, and looking down on the canyon of the morning.

EL CAZADOR.

—Nearly all the taxes in Adair County, Kentucky, were this year paid in scalps of foxes, the State allowing a bounty of one dollar per scalp.

used, and awaits a shot. If he choose to let the doe run by it is all right, for he will not have long to wait before the buck will come on her track, as true as the hound. It is just as well, however, to try a shot at the doe, for unless the buck be very close behind her he won't stop at the report of the gun.

A wounded buck, during the rutting season, is a dangerous customer. I once saw a tired old seven-prong fellow turn upon his pursuer (who was mounted) and chase him for quite a distance, lunging at the horse every bound.

The continual running during the rutting season soon takes the fat off, and by the middle of December they are generally rather poor. Deer generally stay in the thickest part of the woods; that is, where the undergrowth is most dense and affords them a constant hiding-place, for they are extremely shy. For this reason the still-hunter rarely commences his winter shooting until after the frost has killed the leaves, and they fall off, leaving the woods more open, and affording a better chance for discovering the game, as well as for shooting. If any one thinks there is sport or excitement about this method of deer hunting, I wish him joy of it. I can see but little sport in tramping through the mountains, over sticks and stoues, from morning until night. And yet a man who understands still-hunting will kill a great many deer during the winter. When there is snow on the ground is the best time to still-hunt. The deer are not so apt to travel far, and can be easily tracked. Lick-watching is the least exciting of all the ways in which the deer is hunted. Dry licks (where the deer go to lick the ground for salt) are of two kinds—natural and artificial. The former is some piece of ground where the deer have pawed down to a clay surface. The latter is made by digging a hole in the ground about a foot in depth, and then filling it with alternate layers of dirt and salt, packed in tight. The deer soon finds the place, and will use it. The fact is, a deer will use any place where there is salt, as cattle lots, etc. I went one day with a gentleman to salt some cattle he had on a mountain farm. He told me that the deer which ranged in the woods adjacent knew as well when he called his cattle for salt as the cattle themselves did. The cattle were called, and we went out to the next field. Returning in a short while, I saw an old doe quietly licking the salt in among the cattle. Dry licks are used most at night, a short time after dark.

The usual drinking-places of deer are not properly licks, but we have water licks. Wherever deer can find sulphur water they use it in preference to any other. All the most famous licks I have ever known or heard of belonged to this class. The deer not only drink the water, but will stand for a long time with their mouths thrust into it, sucking it up and then letting it run out again. The watcher must have a blind. Its distance from the lick depends on circumstances, though it should always be close to the lick if it is to be watched after dark. The best time to watch a water lick is a few hours before sundown during the hot days of July and August. Just after a shower of rain is a good time for either a wet or dry lick. Deer are extremely cautious about coming into a lick. They generally circle around, winding for danger. I remember an old buck which circled around a lick I was watching for several hours. I could hear a stick crack now and then, but couldn't make out the game. At last an old negro guide, who was in the blind with me, exclaimed in an undertone, "Good God! yonder's an old buck big as a mule." Upon looking up I saw a sleek old buck standing high up on an adjacent ridge. He was tossing his head up and down, snuffing the air. I knew he had scented us, and in an instant he was off, leaving us nothing but the recollection of his shrill snort. When alarmed the deer snorts in a peculiar way, making a noise similar to that made by little boys placing their hands together and whistling through their thumbs. Deer quit using licks upon very little cause, as if a limb of some tree close by be bent down or broken, or a few grains of powder be scattered close by. Once spoiled, it is a long time before a lick will be used again.

For genuine sport, hunting deer with hounds is the best way of all. By October the weather is cool enough for the hounds and hunter alike, but the season may begin earlier. The starter should be on the hunting ground at an early hour, especially in dry weather; if the dogs are let go at daylight so much the better. Once in the proper place he lets go his dogs. They know well what they are to do, and are soon circling for a trail.

"If some staunch hound, with his authentic voice,  
Awoy the recent trail, the jostling tribe  
Attend his call, then with one mutual cry  
The welcome news confirm, and echoing hills  
Repeat the pleasing tale."

Some hounds can wind the game, while others stick to the track, but in running and trailing the best dog to start deer that I have ever seen was a bob-tailed terrier. He seemed to wind them farther off than a hound could. Young dogs invariably depend on the old ones in an emergency. Indeed I have seen a whole pack stand around watching an old deer dog, and waiting for him to cry off.

An old deer hound rarely takes the back track. It surely is not altogether instinct, for only old dogs can be depended upon to take the right end of a cold track, and the more they have hunted the better they seem to know. A good hound can run a very old trail. I have seen a trail at least a day old carried along at a pretty good pace. The starter, if he be experienced, can generally tell what kind of a deer is up. If it be a small deer, or a doe and fawn, the running will be done in circles for some time. If a large or fat deer, the course will be straight for water; especially if it be some distance from the starting ground. A large deer seldom does any up-hill running, and if he be pursued closely he is sure to stick to down grades. Of a wet day deer will keep in the woods a long time, for the water from the brush keeps them cool. The stand in the woods is generally situated upon some leading ridge, for deer always follow the ridges, seldom running across them. A good shot gun (and it is a rare one that will shoot buckshot well) is the best weapon for a stand in the brush. The watcher needs only to stand perfectly still; no matter if the deer does see him, it will not change its course unless it is very close to him. If the dogs are not very close it is an easy matter to stop the deer by a bleat, or any word spoken quickly, but the shot must follow the bleat, for the deer will not tarry long. Unless shot in a vital spot a deer will travel a long ways with a bullet or load of buckshot in him. I have seen them shot through and through the body with a whole load of buckshot, bleeding at every step, and yet they would travel for miles. If shot in the body it must be close behind the shoulder to be fatal. If the hunter sees the deer step his tail "hard down" and run with redoubled speed, he may be sure he has struck it somewhere. If it leave the ridge and make for a hollow it must be badly wounded. The river and lake afford the best places for watching.

Just as deer have certain ground they run over when chased, so have they certain points at which they take to water. Upon

might thunder from its lofty beach summits and its rock-cleft ridges, inspiring all the lesser deities to a superadded awe. The placid little lake, shimmering at your feet, of all the objects within the visual range, is the only one that awakes a feeling of security and repose. The over-arching, rock-crowned hills, beneath which this exquisitely beautiful sheet of water is so nearly engulfed, appear as if they might, upon the slightest provocation, rain down upon you a most relentless shower of stones. Since seeing Devil's Lake I confess to a clearer conception of the poet's vivid verse—

"Alps on Alps—crags on crags—  
Where leaps the live thunder," etc.;

for it seemed to me, anywhere about Devil's Lake, thunder would have a spring-board to start from, and hence a most excellent chance to do some very superior leaping!

Saturday morning found us in St. Paul, enjoying the acquaintance of R. O. Sweeney and William Golcher, Minnesota's most intelligent and wide-awake Fish Commissioners. Fish Minnesota is yet young in deeds, but strong in faith; her fish farm, in extent and in value, is hardly excelled by any State of the Union. To our newly found friends we are indebted for the most enjoyable of all our well enjoyed days. Upon their invitation, and seated by their side in an easy barouche, with just "room for four and no more," we made the trip from St. Paul to Minneapolis, and a jolly trip, too, it was. The ride takes in a very beautiful view of the Mississippi River and Valley, the State University and grounds, and the mineral springs and caves of suburban Minneapolis. In full view from almost any point of the city, can be seen the mill and factory-belabored Falls of St. Anthony, grand and beautiful still, though industrial art and trade have done their level best to contract the tide and lessen the roar of the waters. Returning by another route, you take in the Falls of Minnehaha—falls which, once seen, will not quickly fade from the memory. Further along on the road you come upon old Fort Snelling, one of the boldest and most unique sites in all Jonathan's dominions. Indeed, I know of no drive of equal extent (only twenty-four miles out and back) where are seen so many objects of natural and historical interest, The Falls of St. Anthony, or the Falls of Minnehaha, or old Fort Snelling, any one of them is richly worth a special visit. Now, having gained the northern arc of our "swing around the circle," we fell back in good order by Mississippi packet line steamer to Winona, thence by rail to Chicago. There, reluctantly shaking the Doctor good-bye, I was compelled to do the rest of my vacation alone.

From Chicago I ticketed via Clinton to Anamosa, Iowa, to redeem my long and often made promise with Mr. F. B. Shaw, Commissioner and Superintendent of the Iowa fisheries. It was ever so good a thing to be beneath his hospitable roof, a welcome recipient of the rare bounty and tender kindness and thoughtfulness of his excellent lady and two daughters. Iowa ranks among the foremost of the fish States, and for this proof rank she is indebted almost exclusively to the arduous and persevering efforts of her Commissioner and Superintendent. This I know, for I have watched the inception and the growth of her artificial fisheries with almost a filial interest, having been for many years a resident of the State. The Superintendent's never-say-die kind of pluck—his great resources in contrivance of ways and means, as well as efficiency of execution—his rare tact and judgment in rallying to his use those peculiar aids and influences so essential to give State fish culture a good send off, all were needed to achieve the grand results that must be credited to the Hawkeye State. I visited with Mr. Shaw the State Hatchery, located some three or four miles from Anamosa, and was surprised to find so large a hatchery and one so complete in all its appointments and apparatus. All the space is utilized, and the water, although not a very large supply, yet, under his arrangement of troughs, boxes and screens, seems ample for the attainment of all the results sought. I very much question if any State can show as fine samples of lake trout, salmon and other varieties as can the State of Iowa. The whole upper story of the fishery is occupied by Mr. G. F. Slocum and lady, the overseers of the fishery, and on the occasion of our visit, all the rooms evinced the order, the neatness and the varied accomplishments of the *gulae* wife and perfect housekeeper. From Anamosa, I drifted to Council Bluffs, and Omaha—thence to Lincoln, gathering up as I journeyed what I could of Nebraska and her water resources. An effort was made last winter to induce the Legislature to make an appropriation and to establish a fish commission. But I was told by parties zealous in the fish enterprise that the effort came too late. They say another year you may score Nebraska with the fish States—so mote it be. From Lincoln I passed through Kansas, thence to Kansas City, Mo. Kansas enlisted with the fish States last winter, and has an energetic working commission. Missouri last winter passed an act creating a State Fish Commission, but the Governor has not yet publicly announced the members who are to constitute the Board.

And now, right here, comes in the *comico-serioso* part of my vacation. While the guest of my brother, Wm. W. Jerome, of Kansas City, I, with other transients, became mob-bound. Having a ticket that read plainly enough St. Louis & Chicago, yet for three days I was the prisoner of as scurvy and contemptible a bailiff—a boy mob—as ever held a person in du-rance vile. Despairing of reaching home via St. Louis, I turned to a northern outlet via Omaha, Council Bluffs, Cedar Rapids and Clinton, the longest way being for the nonce the safest if not the shortest! I was an eye-witness of "the strike," it was called, in Kansas City, and a more ridicu-

lous farce, take it all in all, it were hard to conceive of. Intimidation stalked forth at noon-day, was self-created king and ruled the beautiful city of fair women and reputed brave men as with a rod of iron. Bravo and cheek stopped the trains, closed elevators and packing houses, turned back street-cars, shut up brick-yards, drove off men pounding stone for the repair of streets, and put its begrimed fingers on all the pulses of industry, of trade and of commerce; and, when the authorities dared to peep from their holes, so frightened were they, they seemed to have pulled the holes in after them. They saw all this was the work of a lot of rag-and-tag boys, swaggering about with laths and cornstalks—boys, too, none too large nor none too good for the across-the-knee sort of treatment by another class of *strikers*, their mothers. But the farce, like every yelping and whining canine, had its day, and the citizens awoke to wonder and disgust that they, for a single hour even, had tolerated so high-handed and so disgusting a farce. Thus began and so ended the "big strike," which I saw, and to part of which I was a victim. For courtesies extended to myself and to Dr. Pratt allow me to express my thanks to the Great Northwestern Railroad. I declare it to be, from personal knowledge, both a *gamey* and a *game* road, ramifying all the country north and west of Chicago, having a road bed of over 2,000 miles. On it are coaches of the latest and easiest pattern, tastefully furnished—with a time-table you can "lie to"—and equipped with officers and employees genial, courteous and attentive to every want and comfort. "Long may she wave," with the happy experience of none other than "ten strikes."  
GEO. H. JEROME.

NEW HAMPSHIRE.—The State hatching house is to be built at Livermore Falls. It is to be a plain wooden structure, one story high, 40x20, and the site is near a trout pond, which is fed by living springs.

Nashua, N. H., Aug. 25.—Our Fish and Game Club is flourishing. It numbers fifty wide-awake sportsmen, to which number it is limited. We have placed five thousand salmon fry (and locked) in ponds in this vicinity this season, and are daily expecting a lot of black bass from the State Commissioners to stock others with. The Commissioners of Massachusetts having stocked the head waters of the Nashua River (which flows through this place, and where it also empties into the Merrimac) with salmon shad and black bass, the dam across the river at this place is to be reconstructed with a fishway attached. In another spring or so we hope to see salmon and shad, as of yore, swimming past our very doors. Thirty years ago shad were plenty with us, and salmon were frequently taken; our river seemed to be one of their favorite haunts.  
A. W. G.

## Natural History.

### THE GREAT CRESTED FLYCATCHER. *Myiarchus crinitus*—CALAMIS.

EDITOR FOREST AND STREAM:

I TAKE this opportunity of writing concerning so rare and little known a bird—that is, to us in the New England States. In Mr. Samuel's work entitled, "Birds of New England," I find a very short account of this species of flycatcher, merely the description of the bird, its nest and eggs. Wilson speaks of it as only a bird of Pennsylvania and the Southern States. Having had a very good chance of observing the habits of this bird pretty closely for a month or so, I should like to make them known to the readers of the FOREST AND STREAM interested in natural history.

The first knowledge I had that these birds were in the vicinity was their loud screaming, which was kept up mostly in the morning. In the afternoon it was not so frequent. Going out one day, I observed them flying from tree to tree near the house, and seemingly very restless. There were three of them, probably two males and a female. After they had mated, I did not hear them so much, and supposed they had left for some other place. Soon, however, I found I was mistaken, for one day, walking through the orchard, I saw them flying about a tree with a hollow limb. I think they must have been looking for some suitable place while I missed them. The hole they had selected was about fifteen feet from the ground, and about a foot and a half deep. The nest, now in my possession, is large and rather loosely put together, composed of dry grass and large feathers, and lined with fragments of wasps' nests and cows' hair. I obtained with the nest two eggs. While the nest was being built, the birds were very quiet, and once when I started the female from it, she flew silently to the woods without uttering a cry. When the eggs were laid, they manifested much alarm, alighting on the tree and screaming loudly. I took this nest and eggs, supposing, of course, the birds would leave the place altogether. The next morning, however, I heard them screaming far back in the woods, but did not trouble them. A week or so after I happened to be walking along the road, and saw one of these birds under a pine tree, picking up the pine needles. I watched her, and soon she flew over into an old orchard and lit just above a hole in a tree. I waited until she had gone into her nest and left her mouthful. On climbing up and looking into the hole, I saw the foundation of a nest constructed from straw and needles of the pine. Two days afterward I again returned, and found the nest more completed with the former materials; a bunch of cow's hair and a large piece of wasp's nest lying in the middle. I am inclined to think that their object is to get together a sufficient quantity of materials to raise their nest from the dampness of decayed wood, always composing the bottom of a natural hollow. I did not go to this nest for a week, fearing that the birds might desert. When I looked in again, I found the nest completely finished, the lining consisting of a large and a small snake skin, which completely hid everything else. I am unable to account for this in any other way (for it is a marked peculiarity) except by thinking that it is either because the bird prefers the glossy smoothness for her eggs and young, or that it may serve as a guardian while she is absent to frighten away marauders. The next time I visited the nest it contained two eggs, of a dull cream color, thickly scratched with purple lines of various tints, as if done with a pen. I tried the experiment of leaving pieces of wasp's nest around on the tree, thinking that she might take them; but they were always untouched. Evidently they thought their own materials the safest and best. Wilson remarks that this bird is little known on account of its solitary habits. But the birds I had watched and noticed lived very near the houses, and were not at all shy. There is one fact that I will close with, namely, the posi-

tion of the last nest. It was placed half way up a hollow running nearly the whole length of the tree; the nest had no natural opening on. It is a wonder to me how they managed it, and how they stand so securely as it did. I hope this will be of benefit to your readers desirous to ascertain something concerning this bird, I will close.  
G. G. II, Jr.

[We are glad to receive the above, and thank our youthful contributor. The great crested fly-catcher *Myiarchus crinitus* was once considered rare, but is now a common species during spring and summer in the Eastern States.—Ed.]



THE SEWELLEL OR SHOWTL.

THIS strange little creature, which is known to the scientific world as the *Aplodontia leporina*, is one of the most curious specimens of the rodent family. Its position in Natural History is not yet defined as distinctly as one would wish, owing to its isolation and the fact that it seems to be a connecting link between the beavers and the spermophiles of ground squirrels. Its scientific name is derived from *aplos*, simple, and *odons* a tooth, owing to its having rootless molars. Sir John Richardson has proved it to be a new genus of the sub-family Castorina, though it is strongly allied with the squirrel family in many of its habits. Being the only member of its genus and species yet discovered, it possesses some interest for naturalists, as it is with, I believe, one exception, the only example of this paucity of variety in the animal kingdom. Its range is very limited, being found only in that region of Northwestern America lying between the Blue Mountains in Washington Territory and the Pacific Ocean, while its southern wandering is checked by the northern boundaries of California. Even in that comparatively small area it occupies only isolated spots, generally on some sandy prairie, where roots are plentiful and water is convenient. Being an inveterate miner, it is constantly engaged in digging itself a new home, felling young trees, or rooting up edible shrubs. The country around a showtl village is generally one mass of dead vegetation, for the residents will leave nothing green standing if it is of any use to them, or furnishes exercise for their claws. This little animal, when full grown, averages about fourteen inches in length and six in height, and both sexes look exactly alike, except that the female is a little smaller. It has scarcely any tail, the cauda being less than an inch in length. The muzzle is large and round; the head full; the ears are short, quite round, and not unlike those of the *genus homo*, and are covered on both sides with fine soft hair. The eyes, which are very small and of a dark brown color, are situated midway between the nose and ears. The incisor teeth, like those of all rodents, are exceedingly sharp; the legs are short and stout; the feet broad and strong; and the nails, which are long, curved and thick, are powerful mauling implements. The flesh is quite savory, and is highly esteemed by both Indians and the pugacious badgers. The latter are its greatest foes, and two of them will destroy a colony of showtl in about as short a time as a couple of terriers would a nest of rats. The fur, which is thick and tolerably fine, is of a reddish brown hue outside, but the inner approaches a bluish gray at the base. It was formerly used for the manufacture of clothing by the Indians, but since the introduction of cotton goods among them it has been rejected. The red men have a tradition that it was the first animal endowed with life, and the source whence sprung their race, and on this account they pretend to entertain respect for it, but that never exceeds mere expediency. As an anomaly in natural history the animal is attractive, but its utility in nature is a subject for conjecture.  
J. M. MURPHY.

AMERICAN GROUSE.—In the August number of *Scribner's Monthly* there occurs an article by Mr. Charles E. Whitehead on the Grouse of America. He makes a variety of assertions which manifest a profound ignorance of the nature and habits of the birds he describes. I shall only, however, notice what he says of ruffed grouse.

"In the breeding season the cocks select some hollow tree and, strutting up and down, beat it with their wings. If the bird succeeds in finding a log perfectly hollow and well placed, his tattoo of welcome can be heard a mile. It has the same accelerated pace, and is about the same duration as the call of the raccoon, and is heard only in the day, as the raccoon is only heard at night."

Now, passing over the fact that Mr. Whitehead evidently never heard the shrill, wild cry of the raccoon, his assertions concerning the habits of the ruffed grouse are most extraordinary. He must surely have obtained his ideas from some rustic youth who, no doubt, also directed Mr. W. to look for woodcock on the dead trees of the neighboring forest.

The drumming of the ruffed grouse is not confined to the breeding season, as Mr. W. would lead us to suppose. Indeed, every sportsman knows that from September on through the golden autumnal days, the woods are often alive with drummers, and not until the cold and storms of winter approach do they desert from their favorite pastime. That it is a "love call" is all moonshine.

The statement of our author as to the hollow log is too ab-

to treat seriously. Imagine a grouse examining with his eyes each log in his accustomed haunts, until he finds that is "perfectly hollow," which he may beat with his feet. Bah! The fact is, a grouse will drum wherever he happens to be. I have repeatedly crawled within ten yards of grouse as they were drumming. I have found them on old pines or stump, or poles not more than six inches in diameter, and on the bare side of a knoll. As to how the peculiar sound is made, the exact method was described some years since in the *ROD AND GUN*, by a writer whose name I forget. The bird does not strike the log with his wings. He stands erect, as all good grouse should, and, drawing back his neck, strikes out, beats the air, at first slowly, but rapidly increasing the blows until the eye cannot follow the swift vibrations. Every time a grouse takes wing he makes a similar booming sound. Our author also asserts that the grouse is only during the day. He (Mr. W.) evidently keeps up all hours. I have heard a grouse drum in the night, to wit: on 9 P. M. one night in September. A. MURDOCK. *Waterbury, Ohio.*

While Mr. Murdock is correct in the main in his criticism, do not indorse the statement that the drumming of the field grouse is not a love call; for if not wholly so, it certainly is in part, being intimately connected with the sexual instinct and function. The drumming heard late in the season is almost if not always produced by a "bachelor bird"—a male who has not paired during the season; or it may be that performer is a young bird. We once killed a female grouse in the act of drumming.—Ed.]

TWO QUESTIONS.—Does the female squirrel ever leave the nest in which she wishes to bring forth her young after she becomes pregnant? In such case how does the old lady get drinking water, or does she go without? I have seen several accounts of a singular bird which had been found in great places, and propose to give you a short account of one I picked up by a negro upon my place last fall in the hog woods which were thick. It seemed to be in perfect health, I fancy was overcome by heat, and came down into the woods from which it could not well fly out. I have often in the Brazos River in Texas seen young swan which although fully grown were so overcome by fat and heat as to be in vast numbers in the cottom, unable until after a rest to get on. They then, until I saw fit to stop the havoc, were led by the negroes with sticks, and you may believe me when I say, we had fine eating. Pardon me, let me return to my subject. Size, about that of the crow; color, that which is commonly known as "ashes of roses;" eyes, red, like those of the rock pigeon; bill like that of a young squal (nearly grown); feet, very short; legs, dark green and six inches long; wings pretty; feet with four toes, upon each side of the toes what I call ruffles. It was a cross bird and fought savdly. I placed in the box where I kept it a day or two a shallow salad bowl of water, and at night he sought the bowl and roosted in it. Now tell me what it was.

BIRD SHOT.

Squirrels produce their young in the spring, and the female during pregnancy is hibernating. Your bird was a coot, (*Fulca americana*), a well-known bird belonging to the family of the *Rallidae*.—Ed.]

—Mr. P. T. Barnum recently published a card in a St. Louis journal offering \$10,000 for a baby, or a full grown, plant born in America. He claims that elephants do not breed while in captivity, and that all announcements regarding infantile American elephants result from a vivid disposition to mislead the public.

Woodland, Farm and Garden.

GLADIOLUS PLANTS.—We have again been favored by Mr. P. Hanson, of South Brooklyn, one of our most enthusiastic amateurs, with flowers of the following bulbous plants: *Gladiolus sumnerii*, a very rare species. The flowers are bright red, being marked and spotted with white. This singular variety bears its flowers on one side of the stem only, and I propose a valuable sort to hybridize with. *Gladiolus purpureo auratus*, a very curious species, with yellow flowers streaked with purple; more of a botanical species, however. *Gladiolus speciosus* (*Syn. lanceifolium*), *rubrum*, *roseum*, *punctatus*, and album, with a number of seedlings from them, sent by him, the fruit of many years careful hybridization, many of them much larger in the flower, broader in the petals, brighter in color than the types. We understand Mr. Hanson intends to classify these and lay them before the Horticultural Society next season. He also sent flowers *Gladiolus vitchelii*, a beautiful lemon colored variety, and *Gladiolus macrantherus* orange scarlet with black spots; the curious *Gladiolus californicus*, an Iris-looking plant, and a splendid spike *Anemone radialis*, a perfectly hardy sort from Japan with pink colored flowers, tipped with purple. This variety is the more singular, as its lower petals spread, allowing the stamens and pistils to come between them as in *A. formosissima*. Mr. Hanson has had this plant in his possession ten years, and it has flowered now for the first time.

NEW CONDITION OF THE VINEGAR PLANT.—At a meeting of the Scientific Committee of the Royal Horticultural Society, London, Mr. Worthington J. Smith, the eminent rosacopist, stated that in some recent experiments on the effect of light he had occasion to prepare the following mixture as a restraining agent (in place of pure acetic acid) for the development of negatives: Sulphuric acid, 3 oz.; granulated zinc, 4 oz.; gelatine, 24 oz.; and distilled water, 36 oz., whole being boiled in a closed vessel for three and a half hours. For the purpose of the experiments seventy-five times bulk of distilled water had to be added at the time of use. Mr. Smith stated that the original mixture permanently retained its transparency, but on the additional amount of distilled water being added, the invariable result was that the

mixture quickly became turbid, and more or less filled with minute feathery bodies. These feathery bodies appeared within twenty-four hours and grew rapidly, at length tapering, by long and extremely fine threads, every part of the solution. The fungus bore no sort of fruit while in the dilute mixture, but on being transferred to syrup it floated on the top of the sugary solution and immediately formed a film, which was the true Vinegar Plant. On the film being removed from the syrup and allowed to dry, it formed *Penicillium crustaceum*. Mr. Smith exhibited the plants in question in the solutions, showing the different growth.—*Gardeners Chronicle, London.*

AILANTHUS.—(T. B. Legare, Camden, S. C.)—The smell of the staminate variety of the Ailanthus when in flower, is most sickening, especially on a moist, close evening, and may poison some peculiarly constituted persons, just as the exhalations from the Poison Ivy (*Rhus toxicodendron*) will poison some persons, while others can handle it with impunity. Personally we have never known of any instance of Ailanthus poisoning, but as the tree looks better when headed in, we would advise doing so every two or three years to keep the staminate variety from flowering. The pistillate variety is most beautiful during summer and fall when in fruit. We would be glad to hear of any well authenticated instance of Ailanthus poisoning.—Ed.

A question as to the native country of the Jerusalem artichoke (*Helianthus tuberosus*) has lately arisen, the accuracy of its previous reference to Brazil and Peru by authors having been doubted by Professor Gray. The subject was referred by him to Professor J. Hammond Trumbull, of Hartford, who brought to bear his well-known philological and historical knowledge in the solution of the inquiry. The result has been an identification with the *H. doronicoides* of the Mississippi Valley, and the conclusion that the *H. tuberosus* is simply one of the varieties of form which the other wild species frequently assume.

Professor Gray is also inclined to think that the common sunflower (*H. annuus*) is a derivative by cultivation from the *H. leucolaris* of Douglas, itself only a larger form of the *H. petiolaris* of Nuttall, a native of the Western plains, to and beyond the Rocky Mountains.

THE WHITE ASH IN NEW ENGLAND.—In a note to the Massachusetts "Ploughman," Prof. Sargent says, "An intelligent correspondent, much interested in the subject of tree planting, writes us from the central portion of the State as follows: 'I am fully convinced that those who plant and care for the ash are sure of their reward. I am informed by experts that the ash is more in demand and commands a higher price than any other wood that is indigenous; that the fibre of the ash grown in the New England States is tougher and has more substance than ash grown elsewhere, and that the demand is constantly increasing.' During the Centennial Exhibition, our woods were closely examined by foreigners, and now foreign orders are rapidly coming in, and every vessel leaving Boston for a foreign port is taking out large quantities of ash and walnut." The attention of New England land owners should certainly be directed to the profits which the careful and general cultivation of this tree will give, and to the fact that at no distant day the money value of white ash will be greatly enhanced, the ever increasing demand for it having already rendered this tree comparatively rare in the Eastern States."

THE ARTILLERY PLANT FOR WINDOW GARDENS.—A lady friend of ours has a large specimen of this curious plant, which she has grown since last fall in her kitchen window, and it has given her more satisfaction than all her other window inmates. It keeps constantly green and growing, and as sunlight increases, its mantle of miniature muskets thickened, till now it represents a model umbrageous tree, with boughs so sneeuelt and heavy that a rough shake or breath would seem to shatter them. Associated with Oxalises, Malernias, Petunias, Nereimbergias and others, it made January look like May. A great addition to this window in winter was the festooned drapery of the Madeira vine.—*Tues. Melan in Gardeners Monthly, Phila.*

FIELD POISONS.—I have read with pleasure the different remedies for "ivy poisoning" my article of June 28 in your paper has brought out. I have tried most of them, such as sugar of lead, sweet oil, copperas, butter, milk and cream tartar, Pond's extract, soda salt and water, and I don't know how many other different things, but I must say I never had anything act as the "black spotted alder wash." Some six years ago I was told to try salt brine. I went to a butcher and had a bottle filled with it and took it home—that is to say, to the place where I was stopping. I went in the bar-room, had a good stiff nightcap of elder brandy (good, you bet—I am a judge of the article), lit a Reina, and went up-stairs to bed, undressed and applied the brine. If some one had set fire to me, I could not have felt worse. I never suffered so much in my life; my dear man, it was fearful. I had the whole house up-stairs and half the village come down to the hotel to see what was up. I never had such a toast in my life, and never want to another like it. If I could have found the man that told me to use it, I would have filled him full of bird shot, mustard seed, at that. After reading "Jacobstaff's" article, I am convinced his son was poisoned by sumach, or worse than sumach, wildparsnip. I have seen cases of parsnip poisoning just like his son's case. Some people cannot walk through a field where they are burning sumach without the smoke blinding them. Thin-skinned people always suffer the most from these field poisons, and I think light complexions or blouses are more liable to it than dark ones. I see that Fred Graham has tried my remedy and found it a great relief, and doubtless before the summer is over you will hear of others who will find it charming. J. B. A.

—Allow me to call your attention to one more of the good things for vegetable poisons: Tincture of lobelia, one ounce, and fluid extract of belladonna, two ounces; mix and apply to parts affected. I have seen it used very many times, and often with good results. C. A. B. *Waterbury, Conn.*

A GAME PIE.—The greatest pie on record was made at Lowther Castle, Westmoreland, in 1762, as a present to King George, and weighed three hundred and eighty pounds. It contained two turkeys, four wild fowl, two geese, four ducks, one wild goose, six wild ducks, three teal, two starlings, twelve partridges, fifteen woodcock, two guinea fowls, three snipe, sixteen plover, three water hens, six widgeon, one curlew, forty-six yellow-hammers, fifteen sparrows, two chaffinches, two larks, three thrushes, one fieldfare, six pigeons, four blackbirds, twenty robins, one leg of veal, half a ham, three bushels of flour, and thirty-six pounds of butter. History does not say whether or not this pie was contemporaneous with the one made famous in Madam Anser's work: "When the pie was opened, the birds began to sing," etc.

A LAND OF WONDERS.—Roraima is a great table mountain on the borders of British Guiana, whose steep and inaccessible sides rise from the height of 5,000 feet above the level of the sea 20,000 feet sheer into the sapphire tropical sky. This wonderful place is, in other respects, a marvel of the world. The highest waterfall known tumbles from its summit at one leap of 2,000 feet, and then rushes impetuously 3,000 feet more on a slope of forty-five degrees down to the bottom of the valley, broad enough to be seen thirty miles away. Only two explorers have yet even reached the base of the table, which, it is estimated, is from eight to twelve miles long.

A VALUABLE HINT.—We read in a scientific journal: "There is a method which I have adopted in my own house to cool the temperature of any room during hot weather, and that is to hang a sheet or blanket down outside windows upon which the sun may be shining. This sheet is wet, and the evaporation of the water produces a deliciously cool apartment. The sheet is kept damp by having a vessel filled with water above the top of it outside, and a piece of flannel arranged to form a siphon, and touching several portions of the sheet. The water gradually empties out of the vessel, and may be replenished if necessary. The window is, of course, open."

It is strange that so simple and inexpensive a method has not found favor here, more especially in sick rooms; a cylindrical-shaped tin vessel, with very fine holes, fixed over the window, would easily supply the water.

BEGONIA WELTONIENSIS.—I wish to add my evidence to yours as to the beauty and usefulness of *Begonia Weltoniensis* for planting out in summer. I first saw it so treated some years ago in the "Bennett" plot in Greencroft and have used it very freely since. If the soil is made tolerably rich with plenty of leaf mould or well decayed and sweetened muck, it will grow and bloom magnificently until frost. The contrast between the soft pink flowers and elegant light green foliage is most pleasing, and the more exposed it is the brighter the colors become. I consider it a most useful addition to our summer bedding plants. P. J.

—Indian famines are usually in consequence of a failure of the water supply. Artificial irrigation was in former times extensively used under the native princes, but most of the old reservoirs and canals are now in ruins—a fatal neglect which sooner or later must be repaired.

—There is on free exhibition at the store of Peter Henderson & Co., No. 35 Cortlandt street, this city, a collection of gladioli, consisting of 1,500 specimens and embracing at least 500 varieties.

—Col. King's wheat crop at Lyndale, Minn., has been threshed and gives a yield of thirty-three and a third bushels per acre of plump No. 1 wheat.

—W. P.—Yes. Now is a good time to plant strawberries, though you must not expect much of a crop next season. Had you layered them in pots, as described by Peter Henderson in "Gardening for Pleasure" the young runners would now have been fit to transplant without receiving the slightest check, would have made good crowns this fall and given a full crop next season. About two feet between the rows and eighteen inches between the plants is about a proper distance apart, as if your ground is well manured and thoroughly prepared to a depth of at least nine inches, you have a much better chance of having fine fruit than if planted closer. Do not neglect to cover your beds with a coating of from two to three inches of straw or leaves on the approach of severe weather, drawing it back from off the crowns as the growth starts in the spring. It keeps the roots warm, the fruit clean, prevents the growth of weeds, and acts as a mulch in dry weather. Sorts vary much in different soils, but you will find *Triumph de gand*, *Charles Downing*, *Seth Boyden*, *Champion* and *Wilson* all good bearers and varieties that will do well in almost any location. The new variety, *President Lincoln*, you speak of, was shown in magnificent order at the June meeting of the Horticultural Society. It is very large, of good flavor and bids fair to take a high place among the many varieties now grown.—Ed.

P. J.—*Exochorda grandiflora* next week.

STEWART'S TAOKLE.—This is a device little known. Many of the oldest dealers in angling supplies have no knowledge of it. It consists simply of three or four books arranged on a single snell, one above the other, on alternate sides; and so far as we can judge, is an excellent device for "threading" a worm. Cholmondeley Pennell's device is a modification, consisting of but two books. The description of the first is found in "Francis Francis' Fishyuge," and the latter in Pennell's "Worm Fishing for Salmon, Trout and Grayling." Many are misled, as we were by the spelling of the name as Stuart, when it should be Stewart.

## The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age. 2. Food and medicine given. 3. Appearance of the eye; of the coat; of the tongue and lips. 4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc. 5. Breathing, the number of respirations per minute, and whether labored or not. 6. Condition of the bowels and secretions of the kidneys, color, etc. 7. Appetite; regular, variable, etc. 8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg. 9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

### CANINE THERAPEUTICS AND PATHOLOGY—Sixth Paper.

#### ANATOMY OF THE DOG COMPARED WITH MAN—THIRD SECTION.

The *Thymus* of the dog is, proportionately, much larger than in man, whereas the *glandula thyroidea* is much less, and is divided into two distinct parts, or there are two separate glands. The reason of this difference is unknown, as is likewise the use of the gland. It is generally noticed that these two glands do thus always supply the place of the other; that is, in such animals as have a large thymus, the *glandula thyroidea* is smaller, and *vice versa*; hence we are naturally led to ascribe the same use to both, viz.: The separation of thin lymph for diluting the chyle in the thoracic duct before it is poured into the blood. Then, if we consider the difference of formation of the thorax in both dog and man, we easily account for the variety in bulk of these two glands. Respiration in the latter being chiefly performed by the widening of the chest, the lungs at every inspiration must press upon the thymus, and consequently diminish it; but the diaphragm yielding more to the dog's inspiration, this gland is not so much compressed, and hence will be larger, and consequently the thyroidea will be proportionately less. Again, from the posture of the animal, we see that it is much more convenient to have most of the lymph supplied by the thymus, since the neck being frequently in a descending posture, the secretion of the thyroid gland would have a very disadvantageous course to reach the thoracic duct; whereas in man the thymus is really below the lacteal canal when it makes its curvature before opening into the sub-clavian; consequently it is necessary that the larger share of the diluting fluid be furnished by the thyroid, which is situated much higher, so that the lymph has the advantage of a perpendicular descent. The thoracic duct of the dog has no curvature before entering the sub-clavian vein, the horizontal position of the animal allowing a sufficiently favorable course to the chyle, so as not to demand that turn to force its passage into the blood. It may likewise be observed, that such animals as walk horizontally have the valves of this duct fewer in number than others. The horse has but a single pair, while, on the contrary, the *simiæ* resemble the genus *homo* in having several. Thus the lymph is not only forwarded in its passage, but the weight of the column is diminished.

The lungs are divided into more lobes, and deeper, for the same reason as the liver. The left side of the thorax bears a greater proportion to the right than in man, the one being nearly as three to two, and the other as four to three. In quadrupeds as well as in *bi-mana*, the lungs are closely applied to the containing parts, although this has been denied by some.

It is a general rule that all quadrupeds which gather their food from the ground are provided with longer necks than man; but as a long neck not only gives the advantage of too long a lever to the weight of the head, but also, when the animal is gathering his food, places the brain in danger of oppression from the too free determination of blood, which in its return through the veins, has the disadvantage of remounting contrary to its own gravity, it was therefore necessary that a part of the length of the neck should be supplied by an increase in length of jaws. Thus we see horses and cattle, though having no occasion to open their mouths very wide, are yet provided with very long jaws. Bull-dogs, indeed, and such animals as have occasion for very strong jaws, must of necessity have them short; for the longer they are, the greater the resistance to be overcome. Another exception to the general rule is such animals as are furnished with paws or hands to carry the food to the mouth, as cats, monkeys, etc.

The teeth show the dog to be of the carnivora, as none are adapted to the grinding of food, but only for tearing and dividing it. He has six remarkably sharp incisors, and two long canines posterior, all of which ruminating animals want. These are evidently calculated for laying very firm hold of substances for the purpose of rending them, and the vast strength of the muscles inserted into the lower jaw assists materially in this action, while the pre-molars have sharp edges, calculated for cutting flesh and reducing the hardest bones. Even the molars are not formed with rough, broad surfaces as in man, but are considerably sharper, and press over one another when the mouth is closed, that they may take the firmer hold of what comes between them.

The tongue, in consequence of the length of the jaws, is elongate; and as feeding is accomplished with the head in a depending posture, the bolus would always be in danger of falling from the mouth were it not for several prominences or papillæ with which the organ is studded, most numerous at

its base. These are curved backward in such a manner as to allow anything to pass easily down to the jaws, but prevent its return. By these papillæ, also, the surface of the tongue is increased, and a stronger impression made on the sensation of taste. In some animals, who feed on living forms, these "taster-hooks" are still more conspicuous, as in several large fishes, where they are almost as large as the teeth in the fore-part of the mouth, and nearly as firm and strong.

When we open the mouth we see the amygdalæ very prominent in the posterior part of it, so that it would appear at first view that they were inconveniently placed; as being continually exposed to injuries from the hard substances the animal continually swallows. But upon closer scrutiny we find this provided for by two membranous capsules, into which the amygdalæ, when pressed, can escape, removing themselves from such injuries. The *velum pendulum* is considerably longer than in man, to prevent the food passing into the nose, which would happen most frequently in the dog because of its situation while feeding. There is no *uvula*, but the *epiglottis*, when pressed down, entirely covers the whole rima, and naturally continues so. There is, therefore, a ligament, or rather muscle, given off from *os-hyoïdes* the end and root of the tongue, that is inserted into that part of the epiglottis where it is articulated with the cricoid cartilage, which serves to raise it from the rima, though not so strongly but that it may with slight force be again replaced. It may be asked, Why is the uvula wanting here and not in man? It seems that quadrupeds who swallow their food in a horizontal position have no occasion for such, though essential to man in his erect posture.

In the upper part of the pharynx, behind the cricoid cartilage, a gland of considerable size is found, which serves not only for the separation of a mucous fluid to lubricate the bolus as it passes this way, but also supplies the place of a valve, preventing the food regurgitating into the mouth, which it would be apt to do by reason of the depending situation of the head. The oesophagus is pretty much the same in both dog and man. It is alleged by some that the gullet of a quadruped is composed of a double row of circular fibres decussating one another. This is, however, peculiar to ruminants alone, who have need of such formation. The action of these may be easily observed in a cow chewing her cud.

The nose is longer, and its external passage much narrower than in the biped, and the internal structure is much better adapted for an acute sense of smell, having a larger convoluted surface on which the *membrana scheideriana* is spread; this is observed in most quadrupeds who have the *ossa spongiosa* large and divided into a great number of thin lamellæ. The sensibility seems to be increased in proportion to the surface. The elephant, which has a head large in proportion to the body, has the greatest part of it taken up by the cavity of the nose and frontal sinuses, the latter of which extend over the whole head, leaving but a small cavity for the brain. A very fine sense of smell is not so absolutely necessary for man, who has judgment and experience to direct him in the choice of his food, whereas the other animals, who have only their senses, must of necessity have them acute, some having one in greater perfection than others, according to their different way of life. We not only conclude *a priori* from the large expanded *membrana scheideriana*, that their sense of smell is very acute, but we believe that horses and cattle principally distinguish between noxious and wholesome herbs through it.

The external ear in each genera of quadrupeds is differently formed, but always calculated to meet the wants of the animal as demanded by its manner of life. In shape it usually resembles the oblique section of a cone, from near the apex to the base. Hares and such other animals as are daily exposed to danger from beasts of prey, have large ears directed backward; rapacious animals, on the other hand, have these organs placed directly forward, as in the lion, cat, etc. The sleuth-hound and other animals that are designed to hear most distinctly the sounds coming from below, have these appendages hanging downward; or their ears are flexible, for the reason the head is less flexible than in man, and is not readily moved so as to catch the wave sounds. Man, again, who must equally hear sounds coming from all quarters, especially such as are sent from about his own height, has his external ear placed vertically, though slightly turned forward. In short, wherever we see any peculiarity in this organ that has not arisen as deformity, we shall, with very little reflection, discover this form to be better adapted to the animal than any other. The dog also has the power of directing the cone of the ear to the sonorous body without moving the head. There are some differences to be observed in the structure of the internal ear; but there is so little known of the use of the particular parts in the human subject, that it is hardly possible to assign cogent reasons for variations in other beings. All quadrupeds have at the internal canthus of the eye a strong firm membrane with a cartilaginous edge, which may be made to cover some parts of their eye. This is greater or less in different species, as their eyes are more or less exposed to dangers in searching after food. This *membrana nictans*, as it is called, is not very large in the dog; cows and horses have it so large as to cover one-half of the eye like a curtain, at the same time so transparent as to allow the rays of light to pass through in abundance. Fishes have a cuticle always over their eyes, as they are ever in danger in the "inconstant element."<sup>3\*</sup>

The nictating membrane, or third eyelid, with its accessory muscles and other structures, is especially well developed in birds, and is of

All quadrupeds have a seventh muscle belonging known as the *suspensarius*. It surrounds almost the optic nerve, and is fixed in the sclerotic coat as that are. Its use is to sustain the weight of the globe of the eye, and prevent the optic nerve from being too much stretched without compelling the four straight muscles to be in constant contraction; at the same time this muscle may be made to assist any of the other four, by causing one particular part of it to act at a time.

The pupil also, which varies with different animals, is not only accommodated to the habits of its owner, as well as different species of objects that are viewed. Man has his pupil, for reasons obvious: An ox has it oval with the diameter transversely that he may take a larger view of his food; cats, again, have theirs likewise oval, but the diameter is perpendicular, that they may either catch bright light altogether, or admit only so much as they desire. The width of the pupil also varies in different animals, as in the case of the internal organs of vision are more or less thus cats and owls, who seek their prey in the night or in places—and consequently must have their eyes so formed that a few rays of light may make a lively impression on the retina—have their pupils in the day-time contracted into a narrow space, as a great number of rays would oppress the optic organs; while in the night, or when the light is faint, the iris is enlarged and the rays fully admitted. In the same manner when the retina is inflamed, numerous rays of light would occasion painful sensations; therefore the pupil is contracted. On the contrary, when the beginning of amaurosis it is generally dilated, as the eyes become insensible, the posterior of the choroid coat known as the *tapetum*, is of different hues in different species. Cattle feeding mostly on grass have this membrane of a green color, that it may upon the retina all the rays of light which come from any of that color while other rays are absorbed; thus the animal sees its food better than it does other objects. Cats and dogs have their tapetum of a whitish color, and for the same reason have the iris very dilatible and their organs of vision very acute, and we find that all animals see more or less distinctly in the dark, according as this membrane approaches nearer to a dark or white color. Dogs who have it of a grayish color can distinguish objects better in the night than man, whose tapetum is a dark brown; and who, it is believed, sees worst in the night of any being, as designed to rest from all labor in the night. The difference then of the color of the tapetum, as in the case of fabric of any other in different animals, always depends upon some particular advantage accruing to its peculiar manner of life from this singularity.

As in man, the brain is divided into cerebrum and cerebellum, and these two parts bear nearly the same proportion one another. It is proportionately smaller, which would be necessary, as a bulky brain would be inconvenient, and considerably to the weight of the head, which, having a lever to act with, would require a much greater expenditure of force to support it than is now the case; for the heads of the greatest part of quadrupeds are not near so heavy as the head of the man, from the *sinus frontales* being prolonged considerable distance to enlarge the olfactory organs.

The pits in the anterior part of skull are much more spacious than in the human, which may be occasioned by the depending posture of the head while feeding, the weight of the brain, through gravitation, pressing upon the bones, and they are yet soft. The *fulva cerebri* is not nearly so large in quadrupeds as in man, as they have little occasion to use either side, and the two hemispheres of the brain are great measure hindered from jostling one another in violent motions, by the brain insinuating itself into the above mentioned pits.

The second process of the *dura mater*, or *tentorium bello super-expansum*, is considerably thicker and stronger in quadrupeds, especially in such as are very swift of foot, as hares and rabbits, and that most when they are old. The membrane is generally ossified, or we find its place supplied by bone, that it may the more effectually keep off the incumbent brain from the cerebellum in their rapid motions. The olfactory nerves are large, justly deserving the designation of *processus mammillares*. They are hollow, and consist of a medullary and chitinous substance, and at first appear to be the anterior ventricles of the brain produced, but they are small and without any discernible cavity. The reason of this is evident, if we consider the position and situation of the canine head; for the lymph continually gravitating upon the inferior portion of the ventricles, would seem to prolong and produce them. From this olfactory nerve given off, and are sent directly through the *os ethmoidale* to the nose. From this the ancients, to whom the very first of practical anatomy, studied from the human subject, and whose observations on animals were not very superficially conducted, thinking these nerves hollow to the nose, believed them to be the eminent of the brain, through which, also, the mind escaped, and a sleep, to revel in the scenes of other lands.

The *tubercula quadrigemina* are larger than in man, they are of different colors, the upper pair, or *vates*, of the color of the cortical, and the lower, or *traces*, of the duller substance of the brain. The reason of these differences, and other of the like nature to be met with in comparing dog and man, we shall not attempt to determine. Were we to enquire a science we might look to it for an explanation, but unfortunately its principles and deductions are but the vagaries of the diseased organ which it pretends to describe.

BRETON HOUNDS.—The Brittany hound, like the wolf, is a big, bold, broken-haired animal, with a strain of blood. The dog and wolf, being congeners, breed readily together, and the law affecting mules does not apply to the hybrid race, as the offspring of the first cross reproduce the parents with the same facility. A dog-wolf is usually brought by hand, and he, suckled in infancy by a hound dam, in perfect concord with any hounds that may be included in his company. The first cross is usually far from making a running mate, or all but mute, and so self-willed in the den and fierce in the kennel that they are seldom used, and kept to breed from alone. The second cross, however, grand offspring of the wolf, become rare wolf-hounds, fierce, fine-nosed, desperate in the chase, never tiring longest day.

much functional importance to them, as it can be rapidly detached from the whole eyeball. It is found in some reptiles and amphibians, and some fishes, and in sharks. It is fairly well developed in the divisions of the mammalian series, viz., in the Monotremata, Marsupial, and in some few of the higher mammals, as in the wallaby, the quadrumanus, and most other mammals, it exists, modified by anatomists, as a mere rudiment called the *acul-*

FOXES, COCKER SPANIELS,  
ETC., ETC.

[FROM OUR SPECIAL CORRESPONDENT.]

## FOREST AND STREAM:

recent letter to the *Chicago Field*, "Pious Jeems" pours the vials of his wrath upon "Hawkeye" for shooting a and denounces, with eloquent indignation, all who count the death of foxes by any other means than by fair hunting and running with hounds. Bred and reared like the Laird Lochivar in the south, where the venatic instincts of our sh ancestry are still alive, and where to shoot a fox is to be more ungentlemanly and little less criminal than to a man, I was inclined to add my individual Amen! to myvar's vigorous anathemas; but, *tempora mutantur*, now, somewhat to my own surprise, I find myself not only, under certain circumstances, to condone vulpicide, but ally to advocate the slaying of foxes as I would that of other vermin destructive of feathered game.

The civil war put a stop to fox hunting in the South, and as a matter of course foxes increased in numbers and feathered game diminished in quantity. Three years since, when field work of the *Turf, Field and Farm* I received a letter from my friend Harrison, of Brandon—than whom there is not a better or more observant sportsman anywhere—deploring the scarcity of partridges (quail), once so abundant on the broad fertile low grounds of the James and all the Southern States, and attributing it to the increase of foxes consequent on the suppression of the numerous packs of hounds which the ante-bellum days were to be found in almost every part of the dear Old Dominion.

In all countries save England and our Southern States Reynard is held to be the chief of sinners, and is remorselessly hunted wherever and whenever the opportunity offers, and for excellent reason that being the most sagacious he is also most destructive of all the predatory vermin. In Great Britain fox hunting is more than a national sport—it is a national passion; and, as a consequence, England can boast of the best horses and horsemen in the civilized world. In England the landed proprietor, be he prince or peasant, who would not a fox would be denounced and execrated by name in the blueprints, while he who protects the foxes is revered as a public benefactor. On the continent of Europe fox hunting, practiced in England, is almost unknown, and the favorite mode of destroying Reynard is with a shot gun, as he plays a double before a pack of slow but persistent bassets or vischunds. The late war proved that there is no accomplishment in which our young men north of Mason and Dixon's line are so deficient as in horsemanship, and as the best school which to acquire the accomplishment is the hunting field, it is greatly to be desired that subscription packs for hunting fox should be established in every state in which the climate and other conditions may permit.

The attempt is now being made in New York by Mr. Belmont Purdy and other young men of true grit, to get up a pack on Long Island, and there is no reason why it should not succeed, for before and after the Revolution a subscription pack, the records of which are still extant (in the New York Historical Society, I believe), afforded great sport. Subscription packs of hounds have been maintained at Montreal and Toronto, in Canada, for several years. There can, therefore, be no climatic reasons urged against their establishment in every State in the Union. If Messrs. Bennett and Burgess and other players at Polo would divert their subscriptions from that dangerous game to the maintenance of a pack or a fox-hunting establishment, the rising generation will not be as ridiculous as is the present in the eyes of Europeans for their utter ignorance of the equestrian art, and, as in England, horsemanship will become an indispensable accomplishment to our youth of both sexes.

Pardon me, Mr. Editor, when I get upon fox hunting I don't know when to stop, and, like an old hound, I become so mouthy; what I meant to say was that—Old Pious to the contrary notwithstanding—there are cases in which a man may shoot a fox without being put to death without credit of clergy, as he undoubtedly should be if the murder is committed in a hunting country.

I was gratified to read in your issue of the 26th of July a notice of Mr. F. H. Hoc's cocker spaniels, a breed of dogs destined at no distant day to become more highly appreciated here than in England, their native country. I have for years written with both speech and pen an earnest advocate of the cocker.

His beauty and companionable qualities no one will deny; but I know from experience in the field that for general shooting in many parts of the country, and those too most bounding in game, the springer or cocker is the most valuable of all dogs, the pointer and setter not excepted. I remember—it was many years ago—shooting in the glades of Maryland, not far from Oakland, over a team of six or seven cockers belonging to Mr. Cunningham, a Scotch gentleman. One day we killed a deer, two turkeys, three woodcock, and a lot of ruffed grouse over these dogs, which while under perfect control were the most lively hunters I ever saw; they ranged more than thirty yards in advance of the game. There are, as you know, several varieties of the cocker in England, but, unfortunately, all of them very rare in this country, and I would not know where to find them without applying to Sherwood, of Missouri; Bestor, of Connecticut; Messrs. Belmont, Purdy and Hoc, of New York.

When I was a boy—I need not state how many years ago—my late Mr. MacTavish, British Consul, had a kennel of mag-

nificent liver-and-white cockers at Doroughan Manor, the present residence of the Governor of Maryland. I should like to know if that strain of cockers has been preserved—the last of the breed which I have seen was the pet of my grandmother, Mrs. Chancellor Bland, his name was Guess? and he was death on cats. F. G. S.

**RUSSIAN SETTERS.**—I have read with much interest the article by "J. S.," "A Grouse Hunt in Sweden," in your issue of 7th inst., and would congratulate you upon the acquisition of so graphic and edifying a contributor. I hope he may be influenced to extend a repetition of his sporting experiences in your behalf, and to the gratification of your numerous readers, of whom I am one. His testimony in favor of the Russian setter is timely, the subject having been lately introduced in your paper; and being new to our sporting community, of marked interest. It seems to me the qualities of this dog render him well adapted for our use in the New England States as best suited to our shooting, followed as it chiefly is in woods and swamps. Our game birds affect these retreats, which are thick with brush and brier, and difficult to penetrate by man or beast.

How many a bird lies under the brush *perdu* and secure from the search of the high-ranging dog, who, though typifying the poetry of grace and motion while hunting in the open (*védelict* on the Western prairies), is not equal to the cunning of the oft-hunted December quail so secreted. I hope J. S.'s readable paper and strong testimony to the good qualities of the Russian setter may be the means of directing the attention of our enterprising sportsmen to their introduction here, and importation of the pure breed from wherever it is to be found. SENEX.

**DOGS AS DRAUGHT POWER.**—One of the most noticeable features of the capital of the German Empire is the use of dogs in aiding local traffic. Bakers' and grocers' wagons, milk carts, fruit and mineral water stalls, furniture cars, and the lighter vehicles of all descriptions may be seen drawn by teams of dogs harnessed like horses, often three abreast. Or, again, the motive power may consist of a dog and woman, or dog and boy, harnessed side by side. Among the licensed conveyances of this imperial city, 2,186 dog carts are registered, and the loads to which these animals are frequently subjected, would cause Mr. Bergh and other humanitarians to dance with rage. Dogs are emphatically draught animals in Holland, but they are cared for, well-fed and groomed, and seldom if ever taxed beyond their strength; but in Berlin the animal is almost always a filthy, sore-eyed, maimed, mangy animal, an exact quadrupedal prototype of his master or mistress, without even the affection of the animal of the cat's-meat man, who did Timothy, Old Mixon so beautifully. Had Tim invested in a Berlin dog he would not have been forced to suspend business for lack of effects.

**DOG LAW.**—The following is a digest of the laws passed by the Legislature of Maine last winter relative to canines. "Every owner or keeper of a dog shall annually cause it to be registered, described, and licensed for one year, in the office of the city or town clerk wherein he resides, by paying therefor, to said clerk, the sum of twenty cents; and shall cause it to wear around its neck a collar distinctly marked with the owner's name and registered number, and shall pay into the treasury of the city or town for such license one dollar for a male and two dollars for a female dog.

"Whoever keeps a dog contrary to the provisions of this act shall forfeit ten dollars, to be recovered on complaint, to the use of the city or town wherein the dog is kept, and any person may, and every police officer and constable shall, kill or cause to be destroyed, all dogs going at large, and not licensed and collared according to the provisions of this act; and such officers, when not otherwise paid for their services, shall receive from the city or town treasury fifty cents for each dog so destroyed.

"Whoever wrongfully removes the collar from, or steals a dog licensed and collared as aforesaid, shall be punished by a fine not exceeding twenty dollars; and whoever wrongfully kills, maims, entices, or carries away such a dog, shall be liable to the owner for its value."

**CANNINE INSANITY.**—Louisville, Kentucky, had a Newfoundland who was supposed to be insane through grief—a fact not at all improbable. Mr. Clare Boustead, the owner of the animal, moved to Philadelphia, leaving the poor dog behind, homeless and friendless. As soon as the animal realized his situation, he began the most piteous lamentations, and would lie for hours at the door of the deserted house, crying and groaning with genuine grief. Sometimes he would paw and bark at the door, and then rush frantically around the house. After the first week of his abandonment, he became very stupid, and would lie about wherever he could find a place of rest, apparently unconscious, meantime refusing the kind words and food which he was offered by the neighbors, or accepting of the latter but sufficient to prolong life. All this time he showed no ill-nature, but seemed so totally overcome with grief as to be insensible to either kindness or cruelty. Finally it was believed by all that saw him that he had become insane, and a policeman was persuaded to remove and kill him.

**A BOY'S LETTER.**—The following characteristic letter will perhaps recall to more than one of our readers those summer days long ago when they romped and frolicked with their first dog friend. It is only necessary to explain that the "he" is a noble Newfoundland, who occupies a very large place in the heart of the writer:

DEAR PAPA: It is Wednesday, and he is so affectionate. I throw sticks into the brook and he brings them. I didn't mean to make that blot. Your little boy, ALBIE.

**DISTEMPER.**—About ten year ago I had a setter puppy about eight months old, which I sent into the country to a breaker. This man was the village blacksmith, a practiced farrier, and I supposed he had some knowledge of canine pathology in an old-fashioned way. Immediately on his receiving the puppy, he extracted two teeth, remarking as he did so, "I just got him in time; if I hadn't pulled them out, he'd have got the distemper."

The puppy remained in his possession for about six months thereafter, when he was stolen. Whether he ever got the disease of course I have no means of knowing.

I thought no more of the above until I chanced to read the following remarks of Mayhew: "During the latter period of dentition—that is, when the second set of incisors are well up, and the permanent tusks are about half grown, the temporary ones being still retained—is the time when pups are most disposed to display this disorder. I cannot state the precise age, because mouths are not regular in their appearances, even as to mouths, but the aspect of the teeth will sufficiently mark the period when an individual may be expected to be attacked."

Perhaps the above may throw some light as to the cause of the disease, viz.: the teeth. E. L.

Such an idea is perfectly nonsensical, and is as sensible as the theory that throwing a knotted string over one's left shoulder will remove warts, or cutting one's toe-nails with a file will prevent measles. The statement in Mayhew is about as near right in this as in most of his statements; his work being an unreliable one in every particular.—Ed.

**FINE PUPPIES.**—A rare opportunity is now offered those of our readers who desire to purchase finely bred dogs. In another column will be found an advertisement of pointer puppies for sale, sired by the celebrated Snapshot; and setters by the great red Irish dogs, Jarvis, Elcho and Mr. Macdonald's Rover. The breeder of these dogs is Mr. Wm. M. Tilston.

**"DUKE OF ORANGE."**—We are called upon to chronicle the death on Aug. 3 of this magnificent setter, owned by T. A. Fowler, of Orange, N. J. If there is a "heaven for good dogs," Duke will have a seat, with none above him.

**DOG DAYS.**—This is what the weather is doing for the editors:

Dogs must have been valuable property in the days of the "Golden Fleas."—*Rockland Courier*. Even the dogs complain of the hard times. It is the tin panic that affects them.—*Turner's Falls Reporter*. Highly intellectual dog: Type-setter.—*Ec.*

—Mr. Von Culin, of Delaware City, Del., publishes a neat little manual of instructions for breaking dogs, with the mode of using the force collar. Price 25 cents. May be had of the author.

—The Municipal authorities of New York City have received for dog licenses \$33,353.

—Fisher and Bickerton inform us that their red Irish setter Belle has eleven blood red puppies, not a white hair on them.

—The first International Bench Show will be held at London, Ont., Sept. 26, 27, and 28. Entries to close Sept. 10.

**NAME CLAIMED.**—I claim the name of Lady Sensation for my pointer whelp out of Lady Francis, by Sensation. West Troy, N. Y., Aug. 17. JOHN H. FITCHET.

—I claim the name of Bessie for my liver-and-white ticked pointer bitch, out of Dilly's Queen by Dilly's Champion Ranger. T. C. BANKS.

**ABOUT BORAX.**—BORAX was known to the ancients, but its chemical discovery was first ascertained by Geoffrey in 1732. Since then it has gradually increased in use and importance as a remedial agent, and for various other purposes, until it has come to be reckoned an indispensable article in hygienic and domestic economy. Of late years it is increasingly used for toilet purposes, and in the laundry and household—so generally, indeed, that every well regulated family regards borax as one of the necessities. The article has been greatly cheapened, and its preparation perfected, by the discovery of Messrs. Smith Brothers, of Nevada and New York, of an inexhaustible bed of crude borax, and their improved process of manufacturing and refining it for use in the pure state. This superior article is furnished at a low figure by grocers and druggists throughout the country. A most useful and convenient article is thus placed within the reach and means of the whole people, as it can be readily obtained without being subjected, as heretofore, to paying the price of a luxury therefor.—[See Ad.

## SPLIT BAMBOO RODS.

To Our Customers and the Public: In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

—[Adv. CONROY, BISSETT & MALLESON, Manufacturers, 65 Fulton Street, N. Y.

**A POUGHKEEPSIE ROOSTER.**—An unfortunate game cock, by a sad and unforeseen accident, lost his left leg. His owner, a boy of inventive genius and surgical talent, whittled out a wooden leg and attached it to the amputated member; yet the ignorant bird spent the balance of the day and part of the night in attempting to rid himself of the improve ment. At last overcome by fatigue, he placed his head under his wing and retired to rest; but in the morning he had forgotten all his troubles, and trotted off with the greatest ease, much to his own satisfaction and the unbounded delight of the small boy.

Yachting and Boating.

HIGH WATER FOR THE WEEK.

Table with columns: Date, Boston, New York, Charleston. Rows for Aug. 24, 25, 26, 27, 28, 29, 30.

THE DETROIT REGATTA.

[FROM OUR OWN CORRESPONDENT.]

DETROIT, Mich., Aug. 17, 1877.

EDITOR OF FOREST AND STREAM:

The series of regattas which commenced in this city on Tuesday, was inaugurated by the races under the auspices of the Detroit River Navy, which was the opening of what proved to be the most brilliant aquatic event that has ever transpired in America.

But when the day his rainy mantle keeps, And wraps about him till with eve he sleeps, it is simply horrible. The grand stand, which had been erected to accommodate about 4,000 people, was constructed for fair weather, not such a deluge as that which poured down upon the devoted heads of the occupants on Tuesday and Wednesday.

The races for the first day were announced as follows: Swimming match, 200 yards down stream. This was won by F. W. Campbell in 2:17.

At five o'clock the junior double-scul race, one mile up stream and return, was called. There were four entries, Gogues, of Battle Creek; Sho-wae-cae-mettes, of Monroe; Wolvenhooks, of Greenbush, N. Y.; Floral City, of Monroe, having positions in the order named. The Floral City withdrew, leaving the first three to contest the race.

The Sho-wae-cae-mettes led the first quarter, pulling a stroke of thirty-eight to the minute, with the Wolvenhooks second and the Gogues third. At the half mile the Wolvenhooks took the lead and kept it the remainder of the way home, pulling an easy stroke of thirty-two to the minute; Sho-wae-cae-mettes second and Gogues a long distance in the rear. The turn was made in eight minutes and forty seconds by the Wolvenhooks; Sho-wae-cae-mettes in nine minutes. Time of race: Wolvenhooks, 15:44; Sho-wae-cae-mettes, 16:13.

The following are the crews: Wolvenhooks—stroke, F. W. Tompkins; bow, W. T. Miles. Sho-wae-cae-mettes—stroke, Joseph Nadeau; bow, Moses Nadeau.

The next race called was for junior pair-oared, one mile up stream and return, which was won by the Detroit scullers in 14:55; Emeralds, of Saginaw, second in 15:12. The following are the crews: Detroit Scullers—stroke, J. H. Clogg; bow, W. C. J. Campbell.

Emeralds—stroke, P. McElgunn; bow, P. J. Manning. By far the prettiest race of the day was the ten-oared barge race, which closed the day's sport. In this race there were eight entries, the Wah-wah-tah-sees, of Ecorse; Chattanooga, of Detroit; Grand Rivers, of Lansing; Teutonias, of Detroit; Detroit, of Detroit; Centennials, of Detroit; Wyandottes, of Wyandotte, and Restless, of Detroit, all of which rowed over the course.

The start was a grand spectacle, and cheer after cheer rent the air as the eight barges passed the grand stand side by side, and continued nearly so for almost a quarter of a mile. This race was three-fourths mile up stream and return, and was won by the Wyandottes in 8:56, with Chattanooga second in 9:05 and Centennials third in 9:12.

On account of the lateness of the hour the junior single was postponed until the next day. The regatta proper was opened on Wednesday with the four-oared shell race, mile and a half.

First Heat—Entries—Detroit Club, Detroit; Eureka Club, Newark; Emerald Club, Saginaw Bay; Sho-wae-cae-mette Club, Monroe; Excelsior Club, Detroit.

The struggle between the Emeralds and Eureka was close, the former winning in 7m. 58s., eighteen seconds faster than was ever before made in the association. The Eureka followed in 7m. 58s.

Second Heat—Entries—Union Spring Club, New York; Zephyr Club, Detroit; Watkins Club, Watkins Glen; Wolvenhooks Club, Greenbush, N. Y.

The Union Springs stopped rowing at the half mile and claimed a foul, which was not allowed, against the Zephyr. Won by the Watkins in 7m. 46 3/4s.; Zephyr second in 7m. 50 3/4s.

The next race was a mile and a half, for double sculls. Entries—Quaker City, Philadelphia; Mutual, Albany; Ulysses, Troy, N. Y.; Pilot, Grand Haven.

From the start the race was virtually between the Quaker City and Mutual crews. Won by the former in the splendid time of 9m. 38s.

Following came the last race of the day, the final heat for four oars. This, after a close contest, resulted in a victory for the Emeralds in 7m. 50s.; Eureka, 7m. 56s.; Zephyrs, 7m. 56 1/2s.; Watkins and Union Springs not timed.

The first event on Thursday was the junior single scull race of one mile and turn. Won by Sandway, of the Riverdale, Rochester, N. Y., in 15m. 47s.

The second race for pair-oared shells, one mile and a half straightaway, was won by the Emeralds, of Saginaw, in 9m. 4s. The Detroit scullers second in 9m. 7 1/2s.

The third race was for single sculls, one mile and a half straightaway. The Yales and Vespers, of Yonkers, having withdrawn, there were only four entries: Lee, of the Tritons; Yates, Grand Haven; Tompkins, Wolvenhook; O'Donnell, New Orleans; Yales withdrew soon after start. The result was a victory for Lee in 9m. 11s.; O'Donnell, 9m. 14s.; Tompkins, 9m. 20s.

In the four-oared race, three miles with turn, there were seven entries. The Zephyrs broke an oar and retired. The Eureka, who were leading by three lengths, found that their turning buoy had been removed, rowed a distance to the next buoy, and so fell behind ten lengths, which gap before the finish was reduced to one length. The finish was: Sho-wae-cae-mettes, of Monroe, 18m. 50s.; Emeralds, of Saginaw, 18m. 54s.; Wolvenhooks, 18m. 57s.; Eureka, of Newark, 19m. 3s.

The junior six-oared race between the Excelsiors and Zephyrs, of Detroit, and the Undines, of Toledo, was won by the Zephyrs in 18m. 34s.; Undines, 18m. 40 1/2s.

At a meeting of the National Association, held at the Detroit Boat Club house in the evening, the following gentlemen were elected members of the Executive Committee: George W. Parker, Quaker City Boat Club, Philadelphia; T. W. Kennedy, Passaic Boat Club, Newark; H. W. Garfield, Mutual Club, Albany.

The regatta of the Northwestern Association was opened on Friday with the junior double sculls. This was won by the Floral City crew, of Monroe, Mich., in 16m. 31s.; their competitors, the Sho-wae-cae-mettes, of the same city, following in 16m. 32s.

The senior single scull race was thrown open to all, and the following were the entries: P. E. Yates, Grand Haven; W. F. Sandway, Rochester; James O'Donnell, New Orleans. Yates won in 14m. 37s., followed by Sandway in 15m. 10s. O'Donnell came in a length ahead of the latter, but, having turned his stake from starboard to port, lost the award.

The race for senior four-oared shells, three miles with a turn, was rowed by the Emeralds, and the Sho-wae-cae-mettes. Won by the latter by three open lengths in 18m. 37 1/2s., or 24s. better than their time of Thursday. The Emeralds crossed the line in 18m. 47s.

The junior six-oared shell race was won by the old champions, the Zephyrs, in 18m. 34s.; the Undines following in 18m. 40 1/2s., and the Excelsiors in 19m. 6s.

This was the concluding event of the day. The first event of the closing day was a swimming match between W. F. Sandway, of Rochester, N. Y., and H. Newberry, which was won by Sandway by 10 feet.

The junior single scull race, one mile and return, was won by M. Nadeau, of Monroe, in 17m. 58s.; his two opponents meeting with mishaps.

The double scull race, open to all, same distance, was entered by W. S. Mosely and C. Piepenbrink, of the Albany Mutuals, and Miles and Craig, of the Wolvenhooks. Won by the latter in 14m. 2 3/4s.

The six-oared race, for the Northwestern amateur championship, was the event of the day. The entries were: Excelsiors and Zephyrs, of Detroit. Won by Excelsiors; time not announced.

The closing event was the junior four-oared race, same distance. Entries—The Amateurs and Floral City, of Monroe; Zephyrs and Excelsiors, of Detroit, and Undines, of Toledo. The Floral City won in 19m. 48s.; Zephyrs second; Undines third, and Amateurs fourth. The Excelsiors broke down their boat, and were towed in.

MAINE—Portland, Aug. 17.—Race for second class yachts; challenge cup; distance 18 miles. Won by the Georgie in 2h. 51m. 25s. sailing time, and 2h. 7m. 7s. standard time.

RHODE ISLAND—Newport, Aug. 15.—Six yachts of the Newport Yacht Club entered for the Lovell prize. Won by the Victoria, owned by J. R. Roosevelt, of New York.

Newport, R. I., Aug. 18.—The yacht race of 16 miles was won by the Fidget in 2h. 31m; Victoria second in 2h. 31m. 40s.; Annie M. third in 2h. 32m. 20s.

MASSACHUSETTS—Beverly Yacht Club.—The second regatta this season took place off Nahant. The course was from Nahant Point, leaving Red Buoy No. 2, off Winthrop Head on port hand, to the judges' yacht, a distance of seven miles.

The first prizes and the champion pennant were taken by the Water Lily and the Virginia, and the second prizes by the Ida and Frolic. Summary:

Table with columns: Boats, Owners, Length, Cor. Time. Rows: Water Lily, Ida, Mystery, Pere, Avis.

Table with columns: Boats, Owners, Length, Cor. Time. Rows: Virginia, Frolic, Bessie, Nora, Rose, Avis, Blue Bell.

QUINCY YACHT CLUB—Quincy Point, Aug. 15.—Second regatta for the championship; course for first two classes, seven miles; for third class, six miles. The Polly won, for the second time, in first class, and is consequently entitled to the first prize. Another regatta is necessary to settle the championship for the other classes. Summary:

Table with columns: Boats, Actual Time, Cor. Time, Boat, Actual Time, Cor. Time. Rows: Secret, Folly.

Table with columns: Boats, Actual Time, Cor. Time, Boat, Actual Time, Cor. Time. Rows: Enigma, Wildfire, Water Lily.

Table with columns: Boats, Actual Time, Cor. Time, Boat, Actual Time, Cor. Time. Rows: Trip, Red Lion, Dandelion, Rocket.

New York—New Rochelle, Aug. 18.—The fourth annual regatta of the New Rochelle Yacht Club was an event of much interest in aquatic circles. The course was from a stakeboat anchored off David's Island to and around a buoy anchored off Throgg's Neck, five miles from the starting

point, thence to and around stakeboat and returning to starting point. The first, second, third, and fourth prizes were required to go over this course twice; the most of them once. Following is a summary:

First Class—Entries—W. F. Davids, Polly, Dare II, Greenpoint, Susie S. The Susie S. won in 5h. 13m. 18s. Dare Devil coming in second; time, 5h. 20m. 49s.

Second Class—Entries—C. F. Ammon, Coquette, Mary, Thistle, Pluck and Luck. The Pluck and Luck won in 23m. 25s.

Third Class—Entries—Frou Frou, G. Kapp, George Sanders, Willis, Emma, Ripple, Inspector, Josie, Annie, Soph, Traut, Margotta, Joke. Won by the Frou Frou.

Fourth Class—Entries—Ella, Anita, M. E. Baker, Da Louisa, Anna, Gracie, Gertrude, High-pi, Jessie, Jerome, Mary Anne, Fidget, Cora D., Fanny M.

Fifth Class—Entries—Bed Bug, Little Pluck, Mary Lulu, Susie, Centennial, Flora. Won by the Mary B.

Whitestone, Long Island, N. Y., Aug. 16.—Swiss stakes race; cat-rigged boats; distance, about 20 miles. Won by the Ellic uotline allowance. Summary:

Table with columns: Boat, Owner, Start, Time. Rows: Barthenia, Jessie, Maria Louisa, Ingouac, Ellic, Fay.

—An unpaid for yacht is now politely termed a floating debt.

MAINE—Sebago Lake, Aug. 15.—The professional single scull race, short three miles, was won by Frenchy Johns (colored), of Boston, who took first prize, \$125; time, 18m. 25s. The other competitors were Driscoll, of Lowell, second prize, in 19m. 13s.; Lynch, of Salem, third prize, in 1h. 15s.; Ross, of St. John; Saumers, of Salem; and O'Donnell, of Portland. Johnson and Ahern forfeited double scull race.

CONNECTICUT—Hartford, Aug. 17.—Double scull race, ten miles with a turn—Lucille, A. G. Tracy and P. Reese, Lucie, F. Hyde and T. Heild. Won by the Lucie in 13m. 40s.

MASSACHUSETTS—Boston, Aug. 18.—In the Lakeman Boat regatta the race was won by the Jane, J. H. Henry, Mulhearn, A. F. Warner, W. Hennessy. The W. M. Colman second; the Rice third; Susan fourth.

NEW YORK—Palisade Boat Club, Yonkers, Aug. 17.—Annual regatta; prizes gold and silver medals. Summary:

Double scull working boats; open to residents of Yonkers not members of the club; distance two miles; three entries. Won by D. Fro and C. Rider in 18m. 60s. One-Mile Race; eight-oared barges, Resolute and Palisade, Resolute won by three lengths in 10m. 33s. One-mile Race for pair-oared yachts; won by crew composed of S. Leo, C. S. Shaw, and E. Logan, Jr. time 6m. 16s. Two-mile Race; four-oared shells. M. F. Rowe, Uncle Bernard and H. T. Keyser. The M. F. Rowe won by three feet in 11m. 45s.

THE NEW ROWING ASSOCIATION.—The meeting of representatives of the local rowing clubs at the Fifth Avenue Hotel last Thursday evening, resulted in the organization of the Metropolitan Rowing Association of Amateur Oarsmen. There were present delegates from nearly every club in New York and vicinity; the Mystic, Nereid, Triton, Dauntless, Argonauta, Nassau, Hesper, Bayonne, Vesper, Neptune, Columbia College, Knickerbocker, Athletic, Viking of Newark, Nautilus, and Viking of Elizabeth, being represented by two or more members each. The constitution of the N. A. A. was taken as the basis of the regulation of the new New York. The association proposes to hold an annual regatta in the vicinity of this city.

This movement, as we stated last week, is the result of general dissatisfaction among the principal clubs about New York at the selection of a point so far West as Detroit for the regatta of the National Rowing Association, and the consequent absence of any great aquatic event on Eastern waters. The dissatisfaction owes its impulse we presume to those considerations of time, distance and expense inseparable from the meeting of any so called national body. The same influences were at work here that not long since caused the disruption of the Collegiate Rowing Association. The fact is no great portion of the community is yet prepared—and we doubt it ever will be—to go long distances to participate in or witness such events. America is still in her busy money-getting and any sport involving a general outlay of time and money has much to contend against. And again, it is one thing for a community to send its representatives to a distant competition, and quite a different thing to witness that competition itself. The different sections of our country with its breadth of territory will never be satisfied with reading telegraphic dispatches of such a contest. They must be present and witness it themselves. It is in deference to this feeling that, while deprecating any spirit of sectionalism, and regretting any tendency to the free competition of the oarsmen of the whole country, we heartily endorse the organization of the newly-formed body, and anticipate for it a most happy success.

NONPAREIL REGATTA.—The annual regatta of the Nonpareil (Printer's) Rowing Club took place Aug. 20th on the Harlem River. The event passed off pleasantly despite several mishaps.

Yonkers.—The Vespers have reorganized as a Rowing and Yachting Association, with Wm. S. Carr, President; Wm. H. Copcutt, Vice President; W. S. Ballou, Secretary; Jas. T. Howland, Treasurer.

BOAT RACING AT CENTRAL PARK.—Miniature yachting is becoming a feature of the Saturday's sport for the young ones at Central Park. The youthful yachtsmen manifest fully as much enthusiasm over their mimic contests as do their older brothers of the guild. The regatta on the lake next Saturday promises to be an unusually fine one.

NEW JERSEY—Long Branch, Aug. 15.—Third annual regatta of the Long Branch Rowing Association; open to all clubs. Summary:

Double scull race; eight mile; prize, set of colors and medals. Entries: Mann and Smith of the Argonauts and Leven and Wash of the Nautilus. Won by the latter in 5m. 40s. Single sculls; same distance—Entries: E. Mills, of the Athletics; W. T. Taylor, of the Argonauts; W. Pakes, of the Nassaus, and W. W. Trent and D. W. Longstreety, of the Long Branch Ass. Mills won in 10m. 28s. Content, second; Taylor, third; Dougherty, fourth. Prize, a golden medal. Four-oared race.—Entries: Argonauts, Athletics. Won by the latter in 6m. 55s. Prize, set of colors and medal for each man.

National Pastimes.

CRICKET.

Table with 2 columns: Player Name and Runs. Includes entries for St. George's of New York vs Belmont of Philadelphia.

Table with 2 columns: Player Name and Runs. Includes entries for Belmont First Inning.

Table with 2 columns: Player Name and Runs. Includes entries for Canada - Stayner, Ont., Aug. 14.

Table with 2 columns: Player Name and Runs. Includes entries for Kingston, Aug. 15.

Table with 2 columns: Player Name and Runs. Includes entries for New Jersey - Long Branch.

Table with 2 columns: Player Name and Runs. Includes entries for Caledonians.

Table with 2 columns: Player Name and Runs. Includes entries for Harlem Athletic Club.

Table with 2 columns: Player Name and Runs. Includes entries for Amateur Athletics - Ravenswood, I. I., Aug. 20.

Table with 2 columns: Player Name and Runs. Includes entries for A Mexican Athlete.

W. H. T., Syracuse.—Which do you consider the best \$50 breech-loading shot gun in use? Ans. We do not make distinctions between makers.

J. H. N., Bridgeport, Ct.—The pedigree business is in the hands of L. H. Smith, of Stratford, Chairman Com. on Pub. N. A. K. C. and by him delegated to Arnold Burgess, of Hillsdale, Mich., who is compiling the Club book.

STUART'S TACKLE.—We have at last found out about Stuart's tackle. It consists of three hooks, one above the other, on a single snell. For sale by Bradford & Anthony, of Boston.

D. P. S., Glen's Falls, N. Y.—Your description of your dog's ailment is altogether too meagre to judge from. Please observe the note at the head of our Kennel column, and govern yourself accordingly.

D. Z., Bath, N. Y.—Is there any work that gives a description of the flora of Texas? Ans. The Mexican Boundary Commission Report, and the Pacific Railroad Survey are most complete.

C. M. P., Mechanics Falls.—I have a setter pup six months old that has got crooked front legs. Please answer through your paper what to do for him and what was the cause of crooked legs? Ans. You can do nothing. There are several causes for such deformities too numerous to mention.

N. E. S., Natchitoches, La.—In the FOREST AND STREAM of July 26 appears an advertisement of Camp's Automatic Cartridge Loader. Is it what it is claimed to be and worth the price? Ans. We have seen the article, consider it very good for that purpose, and think it is worth the price (\$8).

J. W. S., Sunbury, Pa.—How can small game be put up in sealed cans so that it will not spoil during warm weather? 2. Can blackbirds be caught in a net, and how? Ans. Yes, in the same manner as other meats. 2. Yes, with the usual clap nets.

J. J. S., Philadelphia.—Would you please give me a remedy for getting rid of fleas and lice on dogs? Ans. Use Caswell, Hazard & Co's Juniper Tar Soap to wash with, and apply powdered leaves of the pyrethrum roseum, which may be had of Lazell, Marsh & Gardner, No. 70 Gold Street, this city.

LEADER, Baltimore.—1. What reputation has Beckwith, of London, as a gunmaker? 2. Where can I procure the best style of wading shoes with hobs? Ans. 1. Don't know him. 2. Frank Thomson, of 301 B'way, N. Y. can supply you.

R. E. R., Ferrisburgh, Vt.—Please give the close time for black bass in the State of New York, especially as regards Lake Champlain? Ans. Sec. 23 reads, "No person shall kill or expose for sale, or have in possession after the same has been killed, any black bass, Oswego bass or maskegong between the 1st of January and 20th of May."

L. D. S., Germantown, Pa.—We do not know the gun referred to, Write to the parties. The route to Moosehead Lake is via Eastern R. R. from Boston, to Dexter or Guilford, thence stage. Fare round trip, \$15. Or, you may go via Steam from Boston to Portland. You will find trout fishing, and in the neighborhood, deer, bears, ducks, grouse, etc.

WILD PIGEON, City.—Can you inform me the best time for shooting wild pigeons, and where they can be found in greatest quantity within 50 miles of New York City? Ans. Wild pigeons are very uncertain in their movements, and may be found here to-day and there to-morrow. Fall shooting of pigeons is best in September and October. We know of no place within the distance named that is notoriously abundant as regards this game.

J. S., Pittsburgh, Pa.—1. Where can I obtain a copy of the "Pocket Geologist and Book of Minerals." 2. Does the "Sportsman's Gazetteer" tell the localities where fur-bearing animals are found, etc. Ans. 1. From F. H. Smith, 64 Lexington street, Baltimore, Md. 2. Yes, price \$3.00 for sale at this office.

1. What will it cost to have the first eight volumes of FOREST AND STREAM bound? 2. I intend to visit Canada next month; will I have to pay duty on my shot-gun? 3. What fish hatcheries can I visit on my way to Kingston? Ans. 1. \$1.50 per volume. 2. No, not by obtaining a certificate from the U. S. Customs where you cross to the effect that you intend to return it to the States within a reasonable time. 3. At Pokagon, or Detroit, Michigan.

W. E. D., Lower Brule Agency, Dakota.—My pointer bitch was lined by a greyhound. The litter of course will be deplorable mongrels. If she is subsequently lined by a pointer will the first or present lining have any effect upon future progeny? By some it is maintained that it will, by others that it will not; which? Ans. If this is the first time she has been lined all her future progeny are likely to be marked. If not the chances are lessened.

C. C. C., Connerville, Ind.—I have an English gun stamped "Trin Cock, Paris and London." Is the firm one of note? Can you recommend their make? Is Nichols & Lefever guns American or London make? Can you recommend their make? Do you prefer a pointer or setter for quail? Ans. We know nothing of any such firm. American. See advertising columns for best makers; either is good.

MICHIGAN, N. Y.—Where can I obtain good sport in northern and western Mich.? Ans. "Take Grand Rapids and Indiana R. R. at Fort Wayne Indiana, Kalamazoo, or Grand Rapids, Mich. All along the route good shooting and fishing may be found. In the Manistee for Grayling, at Petoskey, the present terminus of the road, good trolling for Mackinaw trout may be had, and at Kalkaska good trout fishing is found. Ruffed grouse are abundant throughout the forest, and also spruce partridge, hare, and now and then sharp-tailed grouse. Myriads of wild fowl are found later in the season on the inland lakes.

G. C. W., Brookville, Ks.—In your paper of July 26, you say to prevent a bitch coming in heat give five grains powdered exsiccated alum in water night and morning. Will you please tell me in your next how many doses to give—whether five grains a day or twice a day, and if it is to be given at commencement of the bitch coming in heat, or when the proper time is to give it? Ans. Give five grains at each dose dissolved in water. Give at first indication of the estrum and continue three days. If it does not answer by that time, there is no use of continuing it. It is a very uncertain remedy at best.

H. H. S., Tampa, Fla.—I have a Parker gun nine and a half pounds' thirty-two inch barrels, twelve bore at the muzzle, but larger everywhere else—that is, it widens from the muzzle toward the breech. Now) buck shot that chambers in the muzzle lies so loose y in the shell (brass) that I am compelled to put a wad between each layer of shot and there fore can't use the quantity I would wish, and the shooting is anything but good and the shot wedge in the shell if put in loosely. The gun shoots all kinds of small shot to perfection. Will you kindly enlighten me as to how I shall load? Ans. Load just as you have been doing; it is the only proper way. If you cannot get in shot enough get longer shells.

G. M. S., Westboro, Mass.—Please inform me of the duck-shooting at Cretwick Sound, N. C., and inform me of the name of some responsible hotel keeper and guide to whom I can refer to; also, whether I can obtain boats and decoys there, or whether I shall take them with me. Ans.

Duck shooting is good in season. Everything needed can be found at the club house of the Cretwick Shooting and Fishing Club, where good board may be obtained, etc. Hallock's "Sportsman's Gazetteer" gives full information. Price \$3. For sale at this office.

E. A. S., Philadelphia.—I have a Skye terrier puppy thirteen weeks old which is in a very dangerous condition. He is very small, weighs but thirteen ounces and has got the distemper very bad. What can I do for him. He walks with great difficulty and his breathing is labored. Ans. A rational treatment of so-called distemper cannot be given in these columns as it would occupy too much space. You may give, however, 1/2 grain of muriate of ammonia and 1/2 grain of leptandrin every two hours, using small doses of quinine when pulse is high. The book you want is Hallock's "Sportsman's Gazetteer," which will teach you how to treat the dog and give all other information you desire regarding breeds, etc.

S. D. H., Allentown, Pa.—I have a setter bitch two and a half years old which is in a very dangerous condition. He is very small, weighs but thirteen ounces and has got the distemper very bad. What can I do for him. He walks with great difficulty and his breathing is labored. Ans. A rational treatment of so-called distemper cannot be given in these columns as it would occupy too much space. You may give, however, 1/2 grain of muriate of ammonia and 1/2 grain of leptandrin every two hours, using small doses of quinine when pulse is high. The book you want is Hallock's "Sportsman's Gazetteer," which will teach you how to treat the dog and give all other information you desire regarding breeds, etc.

F. G. S.—Can any of the men of science contributing to your valuable paper give me any information in regard to the mussels of the Ohio River and its tributaries? How many varieties are there and are they all edible, and if so at what season of the year? Ans. We presume that the bivalves referred to belong to the genus Unio of which very many species have been described; a majority of them are probably merely varieties. For information concerning the genus consult Binney's "Fresh Water Mollusks," the publications of the Philadelphia Academy of Sciences and of the American Philosophical Society in which Dr. Isaac Lea has described many species. See also Gould's Invertebrates of Mass. The Naturalist's Agency, Salem, Mass., can supply the above works.

CONSTANT RAIDER, Rouse's Point.—Please inform me as to the bird I have killed, etc. 2. Also let me know what will make my dog eat? He has no appetite. He is quite thin, and his coat looks bad. 3. Let me know also where I can procure game laws of this State and what they cost. 4. Please let me know what to do for my dog. It got bit on the lip and I let it go too long till now it is a running sore and it begins to swell. What will make a dog fine in his coat? Ans. 1. Your description is entirely too meagre to decide from. The description as given applies to nearly all the waders at some stage of their existence. Describe bill and feet and all the markings. 2. Cannot tell what is the matter with your dog from your description. You can get a copy of the game laws at this office; price fifteen cents. 3. Touch it lightly with lunar caustic, then apply the following: Mercurial chalk, ten grains; powdered sub. carbonate of lead, three grains; powdered willow charcoal, five grains; simple cerate one half ounce, made into an ointment. 4. Kiburtz, six drachms; powdered white Castile soap, two drachms; Septandrin and powdered cubeb, each one drachm. Mix. Dose, 4 grains three times a day. You ought to have Hallock's "Gazetteer." It would answer all the questions. Price \$3.00; for sale at this office.

—Undoubtedly one of the best and cheapest stocks of Carpetings, Oil-cloths, Mattings, etc., to be found in the United States is that of Messrs. JOHN H. PRAV, SONS & Co., Washington street, Boston. I. W. Adams is the sportsman of the firm, and will take special pains to please any of our friends calling upon him or with any orders sent him. It is a good, reliable house.—[Ad.]

CANADA.—There is a most interesting widow in that appropriately named town, Hazardville, Conn. This lady has lost five husbands by powder-mill explosions. Is she alarmed? Is she discouraged? Not at all. She is about to be joined to the sixth, and he is a powder-miller also.

CARRIER PIGEON CONTESTS.—Pigeon matches are coming into vogue in this State. The sport is said to possess all the requisites of an exciting pastime, and promises to become popular. We fear, however, that its interest depends too exclusively upon the race course system of betting. Blue frequenters of the turf may now vary the routine of putting their change upon the gray horse by betting on the red-checker cock or the blue-checker hen.

New Publications.

THOMPSON'S GARDENER'S ASSISTANT. New edition revised and extended.

Of the new edition of this work, revised by Dr. Moore, of the Chelsea Botanic Gardens, London, and of which we have just received the first six numbers, we can only speak in the highest praise, and fully recommend it to all who are in any way interested in horticultural pursuits. Its aim is to explain in a simple and concise manner the principles on which the practice of horticulture is founded, and to give an account of the most approved modes of working. With this view, instructions are given for the execution of the principal operations in gardening and minute details respecting the most approved modes of cultivation.

After a complete calendar of operations for each month, such explanations respecting the organs, growth and nutrition of plants as is necessary for the due comprehension of the principles on which successful cultivation depends, follow. The nature and properties of soils; the various kinds of manure; the different tools, instruments and machinery most advantageously employed, etc., are fully explained. The best situation, soils and form, for the fruit and vegetable garden; draining, grading, etc., described. Next come the best ascertained varieties of vegetables, the art of propagation, especially with regard to budding and grafting; the operations of pruning and training fruit trees, too often neglected in this country; to be followed by simple descriptions of the different kinds of garden structures, and the principles of heating the same, with the view of introducing systems combining the most perfect results with the utmost economy; the laying out, and especially the management, of the flower garden, and pleasure grounds, with special cultural hints on the most desirable hardy trees, shrubs, bulbs, annuals and budding plants; to conclude with a section on the management of greenhouse and stove plants, including palms, orchids, ferns and succulents, with lists of the most desirable, written by practical cultivators, and which will be found of the highest value by those interested in the culture of these subjects. It is amply illustrated by colored plates and over 200 figures and designs, and is published by Blackie & Son, London and Glasgow, and 15 Dey street, New York.

Answers to Correspondents.

No Notice Taken of Anonymous Communications.

W. W. C., Milton, Pa.—See answer to J. W. S., in this column.

MASSACHUSETTS, Worcester.—Deer may be killed in Mass. from Oct. 1 to Dec. 1 after 1880.

CORRY, Pa.—I would like to know the size of a 500 yard Creedmoor target. Ans. 6x6 feet.

SCRIBNER, City.—The book you mean is Hallock's "Sportsman's Gazetteer." It fills the bill exactly. Price \$3.00. For sale at this office.

O. B. H., Urbana, O.—What will remove rust or tarnish from the interior of gun barrels? Ans. Kerosene.

L. J., New York.—1. Please tell me what is the price of a Remington breech-loader carbine. 2. Which country first used sliding seats in boats? Ans. 1. \$16. 2. United States.

W. G., Nashua, N. H.—Does the Game and Fish law of New York prohibit the taking of speckled trout after September 17? Ans. Yes, from September 1, to April 1, under a penalty of \$25 for each fish.

S. L. N., Millen, N. J.—Is it considered good penetration to break 50 sheets with a Scott gun, 50 yards, ordinary charge of powder, No. 6 shot. Target, two newspapers folded, 22 thicknesses, each tacked in each corner? Ans. Very fair indeed.

## SUMMER RUSTICATING.



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INCLINATION IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

-AT-

No. 111 (old No. 108) FULTON STREET, NEW YORK.

[POST OFFICE BOX 2832.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

## Advertising Rates.

Inside pages, nonparel type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above and time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, AUGUST 23, 1877.

## To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

## CALENDAR OF EVENTS FOR THE COMING WEEK.

Friday, Aug. 24.—Trotting: Earlville, Ill.; Poughkeepsie, N. Y.; Pittsburg, Pa.; Meadville, Pa.; Hillsdale, Mich. Base ball: Live Oak vs. Lowell, at Lowell, Mass.; Crystal vs. Active, at Brooklyn; Indianapolis vs. Rochester, at Rochester. Creedmoor: Infantry, 5th Brigade, 2d Div.

Saturday, Aug. 25.—Trotting: Hillsdale, Mich. Base ball: Cincinnati vs. Hartford, at Brooklyn; Louisville vs. Boston, at Boston; Chicago vs. St. Louis, at St. Louis; Nameless vs. Witoka, at Brooklyn; Volunteer vs. Star of Greenville, at Poughkeepsie; Active vs. Buckeye, at South Brooklyn; Journey & Burnham vs. Jos. O'Brien, at Brooklyn; Produce Exchange vs. Osceola, at Brooklyn; Lafayette vs. Putnam, at Brooklyn; Orange vs. Wilkesbarre, at Orange, N. J.; Hornell vs. Danville, at Hornellville; Athletic vs. Lochner, at Philadelphia; Indianapolis vs. Rochester, at Rochester. Creedmoor: Fourth competition for Remington prize of \$300 in gold; third competition for *Turf, Field and Farm* Badge; Seventh Regiment Rifle Club competition for "Shields" and Remington Special Military Rifle; New York Athletic Club Swimming Match; Rowing match between Watson and Peacock, Passaic River; Amateur Swimming Tournament, Harlem River.

Monday, Aug. 27.—Trotting: Cambridge, Del. Base ball: Orange vs. Wilkesbarre, at Orange; Indianapolis vs. Syracuse Stars, at Syracuse. Creedmoor: Infantry, 11th Brigade, 4d Div.

Tuesday, Aug. 28.—Trotting: Cambridge, Ill.; Parker City, Pa.; Hartford, Conn.; Oskaloosa, Ia.; Macomb, Ill. Base ball: Cincinnati vs. Hartford, at Brooklyn; Louisville vs. Boston, at Boston; Indianapolis vs. Syracuse Stars, at Syracuse. Creedmoor: Practice of American Team.

Wednesday, Aug. 29.—Trotting as above. Regatta of Nahasset Yacht Club off North Shore. Creedmoor: Seventh Regiment competition for regimental medals.

Thursday, Aug. 30.—Trotting as above, and at Hudson, Mich. Base ball: Cincinnati vs. Boston, at Boston; Louisville vs. Brooklyn, at Brooklyn. Regatta of the Newburgh Rowing Association. Creedmoor: Infantry, 1st Brigade, 1st Div.

LONG-RANGE SHOOTING.—We are in receipt of advance sheets of a new work entitled "Long-Range Shooting," which will be issued next week. It is a complete history of the International rifle matches of 1873 to 1877, and a treatise on the rifle and on rifle practice; also a history of the Elcho Shield, etc. It is a handbook that no riflemen can afford to do without it. The fact that it is edited by the rifle editor of the FOREST AND STREAM AND ROD AND GUN, is sufficient guarantee of its correctness and general merits. Published by the Forest and Stream Publishing Company.

—Hon. J. D. Catton, Chief Justice of Illinois, called on us last week while on his way to Cape May. We can only wish the call had been longer.

IN June, when the trees are all leaved and "Nature smiles serene," you decide that the country will not be honored with your presence this year; but when August comes, and all your neighbors are gone, and the workmen at the little chapel next door—which is undergoing its annual repairs (and when is it not?)—keep up such a racket that your head is like the interior of a saw mill, you begin to anathematize your comfortable home, and eulogize the "green fields," "shady lanes" and "pure air" of country retreats. You close up your pleasant, roomy house with its high ceilings, its soft carpets and easy chairs; its gas, hot and cold water, and the water cooler and never-failing supply of ice; with the smoothly shaven lawn and croquet ground, pleasant yard, well-kept walks and cool afternoon breezes; with the drug-store in the second block and the doctor close by. You scoff at these things, and recklessly pepper the carpets, camphor your winter clothing, swathe the furniture, nail your windows down, send your silver to the Safe Deposit Co., your husband out West, pack a Saratoga, a band-box, a valise, a shawl-strap, a box of books, another of plants, a case of ferns, turn over the house to the care of a couple of "hoodlum" boys, and go to the country.

You get there just about dark, tired and weary after a three-mile ride in a double wagon over a road that is by no means pavement, where you find some more unfortunates still more miserable than yourself, all having a "delightful time"—Ugh! At last you retire for the night, and what a night it proves to be! All the mosquitoes in the State congregate to greet you, and hold high carnival over your arrival. One bites you, then another probes you; then they all bite with a unanimity of purpose perfectly astonishing, and lift up their voices in high notes of joy. Lights appear and disappear at each fresh bite to assist in applying cologne water, camphor, salt, soda, soap, kerosene, carbolic acid and other applications which your friends have recommended, and which have proved futile on each successive application, to allay the sting. Numerous-legged bugs of divers sizes, colors and voices make alarming aerial flights from unexpected places, and come violently in contact with the ceiling and rebound upon yourself, and crawl upon your neck with hooked claws and beaks like a pair of ice-tongs. At last, after you have killed bugs enough to stock a museum, and filled the wash-bowl, or distributed them upon the window-sill, and the mosquitoes are fed and hung up upon the wall—that is, those that are left after hunting them vigorously with a slipper for two hours,—tired Nature asserts itself, and you are fast approaching the land of dreams. You have not been asleep but a moment, seemingly, when you are startled back to earth by a hideous roar, a wierd, cavernous sound that causes visions of the resurrection and judgment, to flit o'er your frantic brain. A muttered word of encouragement, and ardent wishes for the eternal health of that pair of lungs, to which, if wicked, you mentally add, "I'll soap that horn before the day is out," and you again attempt to sink into unconsciousness. But then the cows come up and moo around, and one of them wears a bell which rings incessantly, and puts the junkmen at home to shame; the pigs grunt and squeal for their morning meal, and the hens cackle, turkeys gobble, ducks quack, geese *hoo-wah*; all the horses have to be watered, and they all whinny, and the dogs bark; and, as it becomes unbearable, that horn toots again with a violence that would make it heard upon the Danube, and silence remains thereafter for the space of fifteen minutes.

That quiet means breakfast, and you are just congratulating yourself that you will not be obliged to get up after all, when Paudconionium resumes its sway. The farmer and his men come out to yoke the oxen and harness the horses to go to the fields, and all are gifted with cast-iron lungs and knife grinding voices. The oxen are geed, whoaed, hawed, backed and darned till they attempt to go in seventeen directions at once, and a dreadful "black snake" makes an incipient Fourth of July. At last the "critters" are harnessed and yoked, the boys run hither and thither collecting shovels and scythes, which they stop to ring against stones, or to sharpen, and the farmer who takes a few "select city boarders to give them all the comforts of home"—God forbid!—stands in the barn-door and gives orders to a man in San Francisco, while an idiot at the back of the shed monotonously splits wood and throws it in a pile, which serves to fill the intervals of silence which otherwise might possibly occur. Just as all this shows signs of yielding some one comes tip-toeing to your door with a softness to be heard a mile, who, fondly imagining you have slept through all the infernal racket, knocks fit to wake the dead, and coolly informs you that breakfast is ready, and that it's six o'clock. You opine from this that six o'clock is a late hour, and with an uncharitably sigh you reply, "Very well! I'll be down in a minute," and proceed to dress, your head meantime ready to split with the luxury of "country life in a retired and quiet neighborhood," etc. *Vide* advertisement.

You would have had beefsteak for breakfast, but the perambulating meat man failed to put in an appearance yesterday. You would have had cream in your coffee if the cows had not got out of the lot and eaten leeks. New potatoes are not large enough to eat, and the old ones you are served with have been frozen, or have sprouted, and consequently have a pre-historic flavor. The hens, you heard, hide their nests, so but few eggs are to be had, and those they are obliged to send away to fill a contract, or to pickle for winter use. The hams that were smoked first are all gone, and those that were smoked last are not yet cured. There's po—, the unclean beast, there's always that; but you don't fancy the animal. So you take some bread,

which is made from salt rising and is a cross between beach-sand and sawdust in flavor, and some butter which is frowy—the good butter has to fill contract also; and drink some creamless decoction of rye, flavored with "short" sweetening, and hope for better things. So you stay two weeks, and all the days and nights are but repetitions of the first, with now and then an unexpected departure in the shape of sick head aches, "gastric griefs and peristaltic woes," and the doctor three miles off, which allows the farmer's wife an opportunity to administer hop pillows, poultices, mustard and onion draughts, and nauseous compounds of "roots and yarbs"—the latter of which have a "leetle camp-fire and pain-killer" which transforms you into a miniature Vesuvius. It works like a charm however, for your fright at being poisoned or burned up drives away the pain, and you remain the rest of that scorching August day deep in the big feather bed, drinking stale water from the well (which is supplied from the frog pond just down by the corner of the barn) and sigh for the cool mattress and ice-water of the city. But when two weeks are up you feel that forbearance ceases to be a virtue, and you write the boys to meet you at the Grand Central, for you are longing for home. Do you come? Not much! On the appointed day you telegraph you can't come, for your heart fails when you remember that the Smithses and Simpkinses and Heterogenic-cognomenses are not home, and you telegraph that you are not coming till the month is over and all, and that you are having such a *sweet* time, and turn to read the enlightening "Mysteries of Rodolpho," or of "Casper the Cross-eyed Carpenter of Kalamazoo" and such other literature as the house affords. Meantime, the boys are going to the dickens; for, unfortunately, they can't and don't want to appreciate the beauties of the country.

## OUR GAME.

IT is an absurdity to say that the spread of civilization and culture has destroyed the game, for it is a well known fact that game of all sorts increases in the very same ratio in which cultivation increases, if left unmolested in their seasons of reproduction, nesting, spawning or tending their helpless young—so long as a sufficiency of woodland is left to afford them shelter.

The above sentiments were penned by Henry William Herbert, thirty-five years ago, and their truthfulness and prophetic unctious is more apparent in these later days than when the immortal author of "The Warwick Woodlands" first brought them to the attention of the public in "Graham's Magazine." His reference to game was of course the smaller varieties, the feathered denizens of our fields and forests, comprising the quail (*Ortyx virginiana*), the woodcock (*Philohela minor*) and the ruffed grouse (*Bonasa umbellus*). All of these are non-migratory, depending upon something more than natural food, the woodcock excepted, but as this little fellow's migrations are short and do not interfere with the rearing of its young, and as he also depends more or less for subsistence on the un-garnered grain, we can class him with the others as unaffected in point of plenty by the encroachments of civilization.

The larger game, such as the deer, elk, moose and wild turkey, as well as those quadrupeds not strictly game, but affording great sport with a dash of danger to the gunner; the bear, wolf, wildcat and panther, have long since passed away. But none of these levy extensively on the farmer's industry for their support. Their disappearance from the face of the land is not so much owing to the presence of man, as from a lack of cover wherein to roam unmolested and procure their natural food, and bring forth and nurture their young.

In studying the habits of the quail, woodcock and ruffed grouse, and in comparing their present numbers with those of a decade past we find them more plentiful, and do not hesitate in saying that it is the advance in culture and civilization that has caused the marked increase. Quail are much more liable to be found on clean, well kept farms, than on those weedy, unkempt tracts undeserving of the title. So long as good protective laws are passed and enforced, just so long will "Bob White" flourish and increase in our rural districts. The more farms and farmers there are, and the better they till their land, the more quail will there be, for better cultivation means better grain and more of it; and as our little friend is a good deal of a gourmand, rest assured he will never desert the husbandman so long as he provides for his wants, and protects him during the close season. And so with the ruffed grouse, or partridge as he is called by us in New York State. Although he inhabits our hill and mountain sides where the ground is roughest, and the cover the most thoroughly impenetrable, and is somewhat of an autocrat, yet he sometimes condescends to come down from his mountain fastnesses, and take his fill of the farmer's grain. In fact there are seasons when he depends to a great extent for his daily food upon the stubble fields, and in the early fall when the foliage is still as thick as in midsummer making the pursuit of the grouse in his native haunts a bootless enterprise. To capture him at this season you must find some sloping stubble field bordered on its upper side by a belt of scrub oaks and evergreens; repair there some September morning before sunrise, wait patiently, and two to one, *bonasa* will appear hopping through the snake-fence dividing his domain from the field, and after carefully viewing the landscape o'er for signs of crafty fox or dreaded hawk, and giving a preliminary strut or two, will commence picking up the scattered grain. Then shoot him, sitting as he is: for you are justified in so doing, and I hold that it is neither mean nor unsportsmanlike to take any advantage of the ruffed grouse, providing you shoot him fairly and in season. Some

may take issue with me relative to this, but I can only say that when we get this prince of game birds to lie to a dog, allowing his pursuers to get within forty yards before flushing, then and not till then will I say it is unmanly and unsportsmanlike to shoot him sitting. There are sportsmen living in our best grouse districts, clean, quick shots, who every fall bag quail by scores, who think they do well to kill a half-dozen grouse in a whole season's shooting. I have seen the statement made that the quail, owing to his rapid flight and the small surface presented to the sportsman's shot, was the hardest game bird to kill that flies, but he don't compare with the grouse darting through the underbrush, dodging branches and tree trunks in his erratic flight. Then stalk him as you would a deer, be guided by his resonant drumming as he struts and plumes himself upon some mossy log, and I'll warrant you, barring traps and snares, the stock will not be much reduced, shoot him as you will.

Of course Herbert took into consideration that increase in culture and civilization, meant an increase in sportsmen. The fact that to day the ranks of the great, well armed, yet gentle and peaceful sporting army are rapidly filling up, is not owing to a sudden fancy taking possession of the public mind, prompting the people to buy guns and rush to the field *en masse*, there to indulge in frantic efforts to slaughter game, but to a careful consideration by thinking men of the noble, exhilarating and health-giving properties of field sports, inculcated by the efforts of our prominent field journals. The additions to the guild care from the higher orders in life; and this being the fact, and the mania spreading through our rural districts just in proportion as civilization and culture increases, there is no danger of an extermination of our game. With so many gentlemen sportsmen in the field, with so many cultured and refined landholders and farmers, our game will be protected, their nesting and rearing times held sacred, our legislatures will narrow down the open seasons to that point which a knowledge of the habits of game shows to be the most advisable, preventing the stock from becoming depleted by a too long thinning of their ranks. In times of severe winters—which, by the way, is a more to be dreaded evil than an army of "pot hunters" and snarers,—the granaries will be opened, and their contents distributed with no niggard hand for the benefit of the helpless, starving innocents. So can we say that "the signs of the times" point to a glorious future for sportsmen, and it will not be long, believe me, until game of all varieties will be plenty all over our broad land. H. W. DE L.

#### STRAY NOTES FROM THE EDITOR.

POTOSKEY, Mich., Aug. 14, 1877.

My last waif was from Pittsburg, August 4. The same day I took train for Grand Rapids, Mich., via Fort Wayne, Indiana, where I was obliged to stay over Sunday, because there is no connecting through train on Saturday night. The detention, however, was made very pleasant by the courtesies of our Fort Wayne friends, Messrs. Olds, Miller, Fowler, McKenna, Bond, and others. Mr. Fowler has a fine set of pups out of the celebrated Rufus and Ranger, of which he is justly proud; and there are other dogs in town which boast an aristocratic pedigree. Harry Olds' chief trophy is the head of a seventeen-pound maskalong which he recently captured with an eight-ounce trout rod. His private collection of the fauna common to this section, is very fine. The numerous sportsmen of this thriving town once formed an influential club which seems to have disintegrated from lack of cohesion; nevertheless, although it has no recognized existence, the spirit of the body corporate remains, and the recurrence of the shooting season never fails to bring the sportsmen to the front, and the game to bag in due time. The country between Alliance and Fort Wayne, on the Pittsburg and Fort Wayne Railroad, and between Richmond and Fort Wayne, is dotted with bass lakes and well stocked with quail. There are many woodcock also, but shooting is generally prohibited without permits from the tenants, the lands being for the most part posted, a measure of protection which I am greatly inclined to favor, as it saves the birds while it debars no one from sport who is worthy to bear a letter of introduction to some one of the farmers from a mutual friend. Some, who do not seem to comprehend the fact that this is a growing country, rapidly acquiring a dense population, think it a hardship because they cannot rove at random over territory which was almost a wilderness when their fathers were boys. Property rights are recognized by boundary lines which become more and more respected as they contract. The garden-patch is sacred from intrusion while the hundred-acre lot is not; and any decent man who is welcome to a parlor will hesitate to intrude into the private chamber of his host. There is no more reason why a farm should be free to all comers than that the implements and products thereon should be common property to those who covet them. No stranger thinks of engaging in any transaction of a business or social character, however trivial, without a letter of introduction; and surely the same spirit of deference should actuate the sportsman who wishes to shoot over a man's farm or inclosed territory. Of course, where large tracts are without discernible boundaries, or in forests, one cannot discriminate; nor can the law of trespass be any more easily enforced than it used to be a hundred years ago. When our country becomes as densely populated as Great Britain, we shall not only find every acre posted, but shall have to submit to licenses and gun taxes as well. Let us enjoy what privileges we have while they remain, and be contented to get, for the asking, what we don't deserve when we attempt to take it without asking. If any man objects to our shooting on his land, we can go to the next farm. Permission will scarce-

ly ever be refused when sought for through proper letters of introduction. If sportsmen will use the same effort and precaution to secure letters of introduction that they do to secure reserved seats at a concert, or state-rooms on a steamer, they will fare equally as well in the field or hill cover. As a measure of protection the system of posting is doubtless one of the best; and the selfish plea that the farmers keep their birds to trap for their own private emolument or pleasure, will not go beyond the limit of perhaps one in ten of all who own territory where game birds fly or feed.

On the division of the railroad between Pittsburg and Alliance is a veteran conductor named Theodore Gray, who resides in Alleghany City. He is a natural born sportsman, has been on the road twenty years, and is known to every farmer on the route. He seems, too, to know every place where the birds breed. He took pleasure in pointing out to us choice spots in Ohio where game can be shot next October when the law is off. He says that birds will be abundant, and I incline to the opinion that the measure referred to above and a temporarily extended close season have produced the happy result. Any one going West will find the best accommodation on the Pennsylvania Central and Pittsburg and Fort Wayne Railroads, with sleepers and hotel cars attached, where one can not only "live, move, and have his being," but live and have his being without moving much. There is a most comfortable refectory at the Fort Wayne Depot, which is kept by the gentleman who is manager as well of the magnificent "Manhattan Beach Hotel" at Coney Island in New York Bay.

Leaving Fort Wayne on the 7 A. M. way train for Grand Rapids, a journey that would seem long compared with the time made by the through night express, is made delightfully pleasant by the scenery along the route. The country is interspersed with limpid lakes and green groves of oak, luxuriant fields and fruitful orchards, pretty hamlets and bustling towns; and when the tourist passes into Grand Rapids, the queen city of Michigan, the preparatory stages of the transition have tamed down what would otherwise prove a sensation of surprise into a feeling of satisfaction that his expectations have been fully realized. Although I passed two days and one night in Grand Rapids, doing the town as well as thorough-paced horseflesh enabled me to do, the time was insufficient to take in half its local attractions. On my return from this northern section I may feel moved to descend upon them but not here, as I am on the wing.

From Grand Rapids to Petoskey, the terminus of the Eastern branch of the Grand Rapids and Indiana Railroad, the latter half of the route runs chiefly through the dense pine and hard-wood forests of northern Michigan; but at frequent intervals are little hamlets with their buildings all new, and odoriferous of freshly-cut lumber. Evidences of busy thrift, and incoming settlers who are happy with their choice of locations, are seen in the buzzing saw-mills, the tall corn and clustering potato patches, the improved farm implements and the contented kine. Petoskey, is the terminus of the railroad and a landing for the lake steamers that ply to the North and the South. It has been built within five years, but its growth, though rank, is substantial. There are two or three hotels here which are thriving upon the ever-changing multitudes of tourists and prospectors; there are several stores also. All the modern appliances of summer resorts are to be found here, and possibly a huge lake-side hotel will spread its broad verandas here anon. Over the blue waters of Little Traverse Bay the grand view extends, and as I write I see the surface placid as a mirror. I feel the bracing air in my lungs, and its vivifying effects upon a debilitated system. I feel that it is indeed good to be here. Presently the steamer hies away to Charlevoix, thirty miles southward. I am booked for a passage, and must close these hasty notes, or miss it. In my next I hope to write something more interesting about the country. HALLOCK.

INTERNATIONAL EXHIBITION.—The Permanent International Exhibition now open at Philadelphia, offers facilities such as were never before presented for the examination and comparison of all the various styles and qualities of manufactured goods that are placed on the market. It has surprised all who have visited the exhibition to find so grand and complete a display of American industries, while the grouping of exhibits in classes is admirably adapted to facilitate comparison. An invitation has been extended to the Governors of all the States and Territories of the Union to visit the Exhibition during the last week in August, for purposes of general conference. It promises to be a notable event, and arrangements are being perfected to make the visit highly enjoyable to the participants. The programme includes a preliminary meeting at Independence Hall, on Tuesday, August 28th; a formal reception at the Exhibition by the exhibitors and Management, on Wednesday; a grand industrial parade from the manufactories of the city, reviewed by the Governors, on Thursday; visiting leading manufactories, on Friday; a visit to Cape May over Sunday.

NEW MAP OF NEW YORK.—Messrs. D. A. Edstall & Co., of No. 14 Broadway, have just issued an elegant little "Citizens' and Travelers' Guide Map In, To and From the City of New York and Adjacent Places." It is printed upon bank note paper, is handy for the pocket, and enables the traveler to dispense with a hack or hunting a directory in order to find his way about the city. A glance shows the names and locations of the prominent churches, hotels, places of amusement, and public buildings, also the location of the piers of all ferries, foreign, eastwise, river and sound steamers. The elevated and street railways are so clearly indicated by the lines, arrows and signs referring to the directory of the time, that traveling in or out of the city is made easy even to those unaccustomed to city travel. Price 35 cents.

#### GAME PROTECTION.

PENNSYLVANIA.—At a late meeting of the North Philadelphia Game Protective Association the annual election for officers was held with the following result: President, Henry R. Allen; Vice-President, John Clapp; Treasurer, C. E. Webster; Secretary, J. E. Byram.

MICHIGAN.—The following amendment to the game law was made at the last session of the Legislature:

Sec. 1. That no person or persons shall pursue or hunt or kill any wild elk, wild buck, doe, or fawn, save only in the Upper Peninsula, from the 1st day of August to the 15th of November, and in the Lower Peninsula from the 15th of September to the 15th of December in each year, or kill or destroy by any means whatever, or attempt to take or destroy any wild turkey, at any time during the year except in the months of October, November and December of each year, or kill or destroy by any means whatever any woodcock between the 5th of July and the 1st of January, or any prairie chicken or pinnated grouse, commonly called partridge or pheasant, or any wood duck, teal duck, mallard duck, or gray duck, save only from the first of September in each year to the 1st of January next following.

—John Foutch, the great coon-killer of Madison County, Tenn., now in his sixty-ninth year, says that "from roasting-time to roasting-ear time," he has killed, with the aid of two dogs, 239 coons. His neighbors pay the tax on his dogs.

SPRINGFIELD, Aug. 11, 1877.

EDITOR FOREST AND STREAM:

I have read Dr. John P. Ordway's two letters concerning the Mass. game law, together with Mr. Minto's timely suggestions. I am aware that the law is not perfect, but it is far from being as imperfect as Dr. Ordway claims. I am not one who believes that even with the aid of the Mass. Anglers Association a better law could have been passed last winter. The sportsmen of Massachusetts have to meet the entire hotel and saloon interest of Boston whenever an efficient law is asked for to protect game, and this interest is backed by their money. We were beaten by them in 1876, and were obliged to concede to them the objectionable clause in the bill of this year, or be beaten again; and it was not because we lacked the large advice and accumulated wisdom of the "Angler's Association." The sportsmen knew what we wanted; we took the best we could get, and hide our time.

The law makes possession *prima facie* evidence to convict. Dr. Ordway very kindly makes proclamation to pot-hunters and poachers that this means nothing—in substance, that an evasion and lie will pass muster in a Massachusetts court if stuck to long enough. This won't do. A cannot buy woodcock of B, and then when he is prosecuted say that B told him they were killed in town; but the game being found on his possession the statute, as it now is calls upon him (A) to control and overturn the presumption of guilt put upon him by the illegal possession, and unless he can do so I believe the Courts would convict, as they ought.

It is a notorious fact that the game law is, and always has been, violated in Boston with impunity, and simply because sportsmen in that city do no try to suppress the violation. I am aware that this is a strong statement, but the sportsmen there will concede it. Because it is the "Brunswick" or the "Parker" or "Yonng's" who violate thus the law, most sportsmen lay finger upon lip and cry "hush."

Living as I do, one hundred miles from the "Hub," I am importuned weekly by letters from sportsmen in and about Boston hailing me with the old Macedonian cry, "Come over and help us." In reply I say, "Help yourselves."

We keep this end of the State right, and I will give Dr. Ordway twenty-five dollars apiece for all the woodcock he can find in this county dead out of season.

How much better it would be for Dr. Ordway to test the law by an experimental prosecution, energetically pushed by good counsel, than to sit on his seat and confess judgment without trial, "because I (he) should not personally feel willing to risk the reputation of our society by obtaining warrants under the present law." If his Society exists solely to preserve its reputation, let us know it. The people and the legislature when it granted the charter of said society supposed its purpose was a different one, and if it was not, why then, dear Dr., in good faith have its title changed again.

Mr. Hallock's comments on the law, and your editorial ones in the last issue are easy writing, but just tell Hallock it "is easier to write a book" than to engineer a perfect game law through a legislature. E. H. LATHROP.

SUNBURY, Pa., Aug. 6, 1877.

EDITOR FOREST AND STREAM:

"Verde Montie's" article on "Migratory Quail," in your last number (Aug. 2), should attract the attention of every club and every sportsman in our northern latitudes. I intend to introduce it to the notice of our association at our very next meeting, and shall watch the development of this experiment with the greatest interest.

The value of acquiring a new variety to our list of the ortyx family which is capable of protecting itself from almost annihilation by the severity of our northern winters, is almost beyond computation, while the cost is a mere bagatelle. To the sportsman who essays open-field shooting as more pleasurable than the more arduous close cover, any accession of new varieties and numbers will be hailed with delight and the "Rutland Fur Co." If its introduction proves the success it promises, will have conferred a blessing which should make its "memory ever green." A. F. CLAPP.

—George Gillespie of Wayne County, Pa. in the woods of that town, recently had a severe encounter with a catamount. The brute weighed sixty pounds and measured forty-one inches in length.

OUR WASHINGTON LETTER.

WOODCOCK SHOOTING—COLUMBIA LONG-RANGE RIFLE CLUB—BASS FISHING—SHOOTING AND FISHING AT THE VIRGINIA SPRINGS, ETC.

[FROM OUR SPECIAL CORRESPONDENT]

WASHINGTON, D. C., Aug. 18, 1877.

AMERICAN woodcock (*Philohela minor*), the most delicious of all game birds, is now quite abundant in this vicinity, and many have been killed within the past two or three weeks. It must be remembered, however, that woodcock shooting though a beautiful, at times, a very laborious sport, and the excessively hot weather has prevented many of our sportsmen from its enjoyment. Just now when the weather is close and sultry, the birds are found in the covered swamp, there being many such places within an hour's drive of Washington affording them excellent shelter. I have known of a few instances where six or eight have been killed in an afternoon, but they are not so plentiful as they were in the days of Audubon, when he wrote of the woodcock as follows:

"It is, however, killed in almost incredible numbers from the beginning of July until late in the winter, in different parts of the Union, and our markets are amply supplied with it during its season. You may at times see gunners returning from their sports with a load of woodcocks, composed of several dozens; nay, adepts in the sport have been known to kill upward of a hundred in the course of a day, being assisted by relays of dogs, and perhaps a change of guns."

No doubt they were very plentiful in some sections of the country at the time when he wrote, but the gameness of the bird, and its standing as a delicious morsel only served to make the persecutions against it the more persevering. The result is that they are rapidly decreasing in numbers. Woodcock, it must be remembered, raise but one brood of young annually, and rarely more than four in a brood. I have heard of nests being found with five eggs therein, but this is not a frequent occurrence. The young birds begin to look out for themselves within a few hours after their appearance in the world, though they are not able to fly to any extent before three or four weeks. When about six weeks of age, however, although not fully fledged, they can fly with great rapidity, and it requires as much dexterity to kill them then as it does to drop an old bird. There has been a disagreement among ornithologists, I believe, as to the technical name for this bird, some classing it as *scelopax*, and others as *Philohela minor*, but the discussion is not limited to these learned gentlemen. A short time ago a gentleman from this city while on a visit in one of the neighboring counties of Virginia, went out one afternoon for woodcock, having noticed many places where they might be found. Upon inquiry of his farmer friend he was told the birds were plentiful, and a piece of woods was pointed out which it was said they frequented. Further inquiry developed the fact that his granger friend called our common woodpecker "woodcock." Soon, however, our city sportsman found the genuine bird, and bagged several before sundown. Upon his return he displayed the birds with the remark "Here is a true woodcock," but his country friend, with a look of scorn, denied it, declaring "that bird is a seven whistler, and it is no use to call it anything else."

Woodcock, like the snipe, see best at night, but I believe the former are more nocturnal in their habits. They feed principally at night, and are a more gentle bird than the snipe; besides snipe often take long and elevated flights during the day, while woodcock never fly, except at night, unless forced to do so to elude their enemies, and even then fly but a short distance. As before stated, they are found at this season in closely covered swamps, but in this locality it does not inhabit such places exclusively. At some seasons it is no uncommon occurrence to find the bird in corn fields and other cultivated tracts in the vicinity of swampy ground, and it often betakes itself to the woods to rustle among the dry leaves and feed upon the insects and worms found under them. A few remain here during the winter unless the season is unusually severe. Most of them, however, are off for the South as soon as the ground begins to freeze, but return in early spring to breed. Their nest is carefully concealed in a secluded place in low, thick, swampy woods or brakes, on the ground at the foot of a bush or sometimes on a fallen log or decayed stump. It is formed of a few dry leaves or a little grass, just enough to keep the eggs from the cold or moist ground, and in this latitude the eggs generally are laid in March. The female bird is considerably larger than the male, but they fly with such rapidity that it requires great dexterity to kill them. It is well known that they feed principally on earth worms and insects; and it is said that a single bird will swallow more in the course of a night than will equal its own weight, its digestive powers, however, are great accordingly.

Mr. Charles H. Laird is the fortunate winner of the Burnside badge presented to the Columbia Long-Range Rifle Club by Col. J. O. P. Burnside, the President of the Organization. There were four contestants for the prize, participated in by Messrs Chas. H. Laird, James E. Bell, P. J. Lauritzen, Prof. Wm. Harkness and Col. Burnside. The badge is a beautiful piece of workmanship and attracts much attention. It is of gold, with enamelled face representing the target. On the reverse is the inscription

"1877  
BURNSIDE BADGE  
won by  
CHARLES H. LAIRD.  
Score, 180 177 184—541.  
Distance, 1050 yards."

The length of the badge is 1 1/2 inches and width 3/4 of an inch. It is surmounted by the monogram of the Club, C. L. R. C., in

gold tastefully interwoven, to which letters the pin is attached. Col. Burnside, the President of the Club, takes a lively interest in the welfare thereof, and the badge was gotten up by him to be contested for, the terms being that one of the contestants must win it three times before it became his personal property. Each contestant had two sighting and forty-five scoring shots over the extraordinary distance of 1,050 yards, and at the first contest Mr. Laird was the winner; at the second Mr. Lauritzen was successful; at the third Mr. Laird again won, and at the fourth he took the prize. The Club meets for practice at the range near Benning's Station on the Baltimore and Potomac R. R. every Friday afternoon, and there are frequently many interested spectators. The organization is now affiliated with the National Rifle Association, having recently received the affiliation papers, and it is in a very flourishing condition.

There is a peculiarity about the black bass fishing in the Potomac near Washington noticed by many intelligent anglers during the past few years, and that is, that but few large fish are taken from the waters near the city. Three or four years ago it was a common thing to catch bass above and in the neighborhood of the Little Falls weighing from two to three pounds. Now small ones are frequently taken, but it is not often that a fish weighing over a pound and a half is caught. Many who have noticed this express the opinion that the large fish ascend the stream to spawn and there remain, as fine ones are frequently taken in the headwaters of the Potomac, Shenandoah and branches of those rivers.

Letters from the Virginia Springs show that but few people are at those popular watering-places this season, but the visitors to the Springs in the neighborhood of the Shenandoah River and its branches are enjoying excellent bass fishing, while at other places the trout streams in the mountains afford rare sport. There is no lack of variety as far as fishing is concerned; all can take a hand, from the small boy of the hotel who successfully dangles the lively worm in a neighboring brook to the experienced angler who casts his fly for trout, or tempts the bass with a fat minnow. The mountains are full of wild turkeys and deer, and an occasional bear is met with. The young turkeys now are in good order and often afford good sport.

NOTICE TO SPORTSMEN.—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining, to imitate the genuine article) without letting our customers know just what they are getting.

P. O. Box, 1,284.—LADEN. ARBEY & IMBRIE, 48 Maiden Lane.

The Rifle.

CREEDMOOR, Aug. 18.—The Parker gun match at Creedmoor on Saturday last, gave the long-range men an opportunity for 1,000 yds. practice, the conditions requiring 30 shots at 1,000 yds. Out of a possible 150 the scores ran:

C B Blydenburgh.....	133	H Fisher.....	129
F Hyde.....	122	F. E. Millen.....	115
T Lamb, Jr.....	127	R Rathbone.....	114
L L Allen.....	126	CH Madson.....	113
W Gunn.....	123	W M Farrow.....	107
J P Waters.....	123	R H Keene.....	102
T S Dakin.....	121	J A Hotry.....	94
F A Dugro.....	120		

Tuesday, Aug. 21.—The first regular practice of the American team and reserve at Creedmoor, on Saturday last, was certainly encouraging, despite an accident to Gen. Dukin's piece, which prevented him from taking his usual high place. The scores stood:

F Hyde.....	800 yds.	900 yds.	1,000 yds.	Total.
Isaac L Allen.....	74	71	69	214
C B Blydenburgh.....	68	73	68	209
L L Allen.....	53	72	71	206
F Weller.....	74	70	62	206
W H Jackson.....	72	65	65	202
L L Hepburn.....	72	69	61	202
L C Bruce.....	69	66	65	200
H S Jewell.....	73	64	62	199
T Lamb, Jr.....	70	65	63	198

The Crescent City Rifle Club team from New Orleans were also down, and for the first time fired over the Creedmoor ranges. These scores are certainly very fair, and fairer than all is Selph's 75 at 800 yards; a very good initial effort indeed. The scores stood:

Dudley Selph.....	800 yds.	900 yds.	1,000 yds.	Total.
Wm Arns.....	75	61	65	201
R C Byrne.....	68	68	65	199
John M Rowand.....	64	68	53	185
P T March.....	67	66	50	183
John Glynn, Jr.....	62	61	47	170
John Glynn, Jr.....	68	47	56	171

THE IRISH AMERICAN RIFLE CLUB have decided to meet the Greenwich, Conn., Irish American Rifle Club in answer to the challenge published in our columns, and on Saturday last the following team was chosen: J. I. C. Clark, J. E. Irwin, N. D. Ward, Corporal Cavanaugh, H. L. Hlover, Ed. Duffy, P. Farrelly, M. M. Malby. Reserves—W. H. Murphy, J. F. McHugh, Sergeant Burns.

The visit to the Connecticut Irishmen will take place Wednesday, Aug. 29—the shooting to be at 200 yds. only.

—For trains to Creedmoor Rifle Range, see time-table in advertising columns. We trust this will answer the numerous inquiries as to how to get to Creedmoor.

THE CRAEK CITY SHOTS.—It is a curious fact, observes the *Graphic*, that the crack shots chosen to make up the American rifle team are natives of our larger cities. The Leatherstockings and Deer-slayers of the forest, of marvelous skill in drawing a bead, have disappeared. They are eclipsed by the man of the town, who doubles himself upon the ground like a patient suddenly stiffened in the writhings of cholera, and makes a central shot at 1,000 yards. But the

man of the town has the most practice. He is stimulated by the prospect of a world-wide fame and high stakes. He has a greater variety of targets and practice. There are targets and practices at the butts on the plain, and occasionally, in troubled times, targets and practice on rioters in the metropolitan streets. For the country marksman the wild turkey, deer and bear have nearly disappeared. Nor do rioters fill their places. An occasional tramp, it is true, invites a shot, but does not come often enough to make the practice regular. For such reasons does the country marksman lag behind his compeer of the town.

THE NEW HAVEN RANGE.—Several informal meetings on the question of a reorganization for rifle shooting effort in New Haven have been held. On the evening of the 14th a final meeting was held at the office of Col. Smith, and a full organization effected. The name of the association was finally fixed upon as the "New Haven Rifle Association." Its objects are to provide and maintain a suitable range for military and long-range target practice, and to encourage and promote the interests of this art. The annual fee was fixed at \$3, to be payable in advance. The fee for life membership was fixed at \$10. The regular monthly meetings of the Board of Directors on the first Friday evening of each month. No liquors or intoxicating drinks can be sold or offered as prizes on the grounds at any shoot of the association. The association starts off with some sixty members—having absorbed all the rifle associations in the city. The property of the old New Haven Rifle Association will soon be made over to it formally. The price has already been agreed upon, and new ranges have been constructed in advance. The grounds are east of the Hartford railroad track in the rear of the Schutzen Park. Ranges from 200 yards up to 1,000 yards have been provided, but not furnished yet. They will be furnished with targets and other appurtenances at once, and will have three 200-yards, three 300-yards, one 800, one 900, and one 1,000-yards target. Officers were chosen as follows: President, Col. S. R. Smith; Vice-President, Capt. Frank Tiesing; Recording Secretary, Col. S. J. Fox; Treasurer, Lieutenant Andrew Alten; Directors, Capt. Doerschuck, Captain J. E. Stetson, J. M. Marlin and Major W. H. Layne, Jr. O. M. Winchester, James M. Marlin, E. M. Reed and Eli Whitney were chosen honorary members. The range will be formally opened next week.

New Haven.—On August 8 a match with military rifles was fought on the New Haven range between teams of the Government Foot-Guards and the New Haven Light-Guards, resulting in a victory for the latter, the scores standing:

New Haven Light-Guards.			
L J Kennedy, Captain of team.....	300 yards.	500 yards.	T 71
Private J T Jeroy.....	3 4 4 5—19	0 4 3 4—11	30
Corp R M Walker.....	3 3 4 3—16	2 5 5 4—21	47
Private J P Lewis.....	4 4 4 4—20	3 4 4 4—19	39
Private E Posen.....	3 4 4 3—18	3 4 3 4—18	25
Private G Nichols.....	5 4 4 4—22	4 3 2 2—8	22
Private F C Bronson.....	3 4 4 3—18	0 3 5 4—24	32
Total.....	132	102	234
Government Foot-Guards.			
A Allen, Captain of team.....	300 yards.	500 yards.	T 71
Corp A Johnson.....	3 3 3 3—12	4 0 4 5—18	53
Corp J Braddock.....	3 3 3 3—12	3 3 0 3—13	25
Sergt Demming.....	4 0 3 5—17	3 3 7 4—10	27
Private Andrew.....	4 4 4 4—18	4 2 3 0—11	29
Private Andrew.....	4 5 4 4—21	3 2 0 2—7	28
Private Shepard.....	2 4 4 2—16	3 4 3 2—15	31
Sergt E Morse.....	4 2 3 2—16	3 5 5 3—15	32
Total.....	115	90	205

Willowbrook Range, Conn.—The regular semi monthly shoot of the Connecticut Rifle Association, at Willowbrook Range, Berlin, on Saturday, the 11 inst., was a very pleasant and satisfactory one. The long-range champion badge (ten shots each at 800, 900 and 1,000 yards) was won by George T. Judd, of Middletown, this being the second full score at 800, 900 and 1,000 yards he has ever shot. The following were the leading scores in the long-range match:

G T Judd, Middletown.....	800 yds.	900 yds.	1,000 yds.	Total.
P Wessel, New Br.....	47	46	38	131
Orange Judd, Middletown.....	44	46	38	128
P Parker, New Br.....	38	45	43	126
W H Binns, H'd.....	43	33	42	122
W H Binns, H'd.....	40	41	41	122

The mid-range champion badge was won by F. T. Studley of Hartford on a perfect score of ten straight bull's-eyes. The All-Corners trophy, open to any rifle of 40 cal. or under, and any trigger pull, was won by J. L. Woodbridge of Manchester. All the badges must be won three times to become the property of the winner. The mid-range champion badge has been won twice by H. P. King of New Britain. It is proposed to arrange a "ladies' day" on the range.

MASSACHUSETTS—Walnut Hill.—At the third match for the Sharps' mid-range rifle on the 14th inst., but few competitors appeared. The distances were 200, 300 and 500 yards; position standing at each distance; five rounds. Mr. N. W. Arnold had led in the contest on a previous day, and Mr. J. B. Osborn also led in a previous competition. Mr. L. W. Farrar led on this occasion, making 60 out of a possible 75. The following were the leading scores:

L W Farrar.....	200 yards.	300 yards.	500 yards.	T 71
S E Ring.....	4 4 4 5—22	3 3 4 5—19	2 4 5 4—19	60
J H Osborn.....	4 4 4 4—20	4 4 4 4—18	4 4 2 5—19	57
J H Osborn.....	4 3 5 3—19	4 4 3 5—21	4 2 3 2—16	56

MARYLAND—Baltimore.—The first prize shooting for a Whitney 45-calibre rifle took place at the Patuxent Rifle Range, Baltimore and Ohio Railroad near Baltimore, on Sat., the 13th. The conditions were seven shots each man, 200 yards, open to all comers, any rifle, Creedmoor rules, the member having the highest score in the aggregate of three trials to become the winner. The scores were as follows:

F H Hask.....	5 3 4 4 3 4 5—23
W B Conson.....	3 4 3 3 4 4—23
J B Armstrong.....	2 4 4 2 4 3—23
W J Davidson.....	4 3 2 4 5 3—24
Ewd Melchior.....	0 4 4 4 3 4—23
G H Smith.....	4 2 3 3 4 3—22
J J Turner, Jr.....	4 4 3 3 3 3—22
E W Davidson.....	0 4 3 3 3 4—19
A V Canfield, Jr.....	4 2 4 0 4 3—17
W R Cunningham.....	2 3 2 2 2 3—19
P F Vickers.....	0 0 3 3 2 4—14
G H Kernan.....	2 3 0 0 3 2—13
L Detrich.....	3 0 3 0 3 4—13

CREEDMOOR, New Orleans.—The last day's shooting of the New Orleans experts of the Crescent City Club was done in

The fourth competition for the Lillenthal Cup on the 12th inst., and as usual top scores were shown as follows:

Table with 2 columns: Name and Score. Includes R G Eyrieh, Capt Dudley Selph, Col John Glynn, Jr., E T Manning, Major Wm Arms, John K Renaud.

Light changing wind, shifting from 8 to 3 o'clock, and very troublesome.

After the long-range competition, the following scores were made for the clubs; diamond mid-range badge, 15 shots at 500 yards; carton target; possible score, 90 points; no sighting shots.

Table with 2 columns: Name and Score. Includes R G Eyrieh, Jas Buckley, Wm Arms.

The crack shots of the Crescent City Rifle Club, of New Orleans, who have been chosen as the team to represent the club and the State in the coming inter-State long-range match at Creedmoor, arrived in this city via the Pennsylvania Railroad at 4 o'clock Saturday afternoon.

CALIFORNIA RIFLE TEAM.—The sixteen members of the California team for Creedmoor met at San Bruno on the 12th inst. for the regular weekly practice, and succeeded in getting in very good scores, though the day was unfavorable for good shooting.

Table with 2 columns: Name and Score. Includes T E Carson, Geo H Strong, Charles Nash, Lieut Robertson, E Unger, C F Peterson, Joe W Mahor, E H Ladd.

AMERICAN ARMS FOR TURKEY.—The Bridgeport (Conn.) Metallic Cartridge Works have lately shipped for the Turkish Government thirty-two car-loads of cartridges.

—The Rahway Rifle Club offer a badge to be shot for on their range at Rahway, N. J. Conditions: Distance 200 yards, position off-hand; rifle any within the rules.

—The Mohawk Valley Rifle Association of Utica has been picking its flints, and is taking on new life. A range on the Mohawk Flats, of over 1,000 yards, has been selected.

THE CREEDMOOR FALL MEETING.—The following is the programme of matches for Fifth Annual Fall Prize Meeting National Rifle Association, Monday, September 10, 1877, and the following days, at 9 A. M., each day:

Competition I.—"Judd" Match.—Offered annually, under resolution of Board of Directors, N. R. A., to commemorate the services rendered by Hon. David W. Judd in securing the passage of the law by which the Association was enabled to secure its range.

Conditions.—Weapon, any military rifle. Distance, 200 yards. Position, standing. Rounds, seven. Entrance fee, \$1. Open to all comers.

Prizes.—1st, a trophy, value \$50; 2d, a trophy, value \$30; 3d, life membership N. R. A., transferable under the rules of the N. R. A., value \$25; 4th, cash \$15; 5th, cash \$10; 6th, 7th, 8th and 9th prizes each, cash \$5; 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th and 20th prizes each, cash \$5.

Competition II.—"Short Range" Match. Conditions.—Open to all comers. Weapon, any rifle. Distance, 200 yards. Seven rounds. Position, standing. Entrance fee, \$1.

Prizes.—1st, a prize, value \$100; 2d, a prize, value \$50; 3d, a life membership N. R. A., transferable under the rules of the N. R. A., value \$25; 4th, 5th, 6th and 7th prizes each, cash \$10; 8th, 9th, 10th and 11th prizes each, cash \$5; 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th and 20th prizes each, cash \$5.

Competition III.—The "Champion" Match. Conditions.—Open to all comers. Weapon, any rifle or rifles. Distances, 200, 600 and 1,000 yards. Rounds, ten at each distance. Position, standing at 200 yards; any at 600 and 1,000 yards. Entrance fee, \$2.

Prizes.—1st, Grand Medal of the N. R. A. in gold, value \$100; 2d, Grand Medal of the N. R. A. in silver, value \$50; 3d, Grand Medal, N. R. A. in bronze, value \$25; 4th, cash \$25; 5th, cash \$20; 6th, cash \$15; 7th, cash \$10; 8th, cash \$5; 9th, cash \$5; 10th, cash \$5.

Competition IV.—"Cavalry" Match. Conditions.—Open to teams of seven from any troop or other organization armed with carbines, of the National Guard S. N. Y., each being certified by their commander to be a regular member in good standing of the troop he represents, and to have been such on June 1st, 1877.

Prizes.—1st, to the regiment whose team makes the highest aggregate score, a water cooler, value \$100; 2d, to the troop whose team makes the second highest aggregate score, a tent, presented by J. F. McHugh, 1,286 Broadway, New York, value \$45; 3d, to the troop whose team makes the third highest aggregate score, a trophy, value \$25.

Competition V.—"Gating" Match. Conditions.—Open to teams of twelve men from any regiment or Battalion of the National Guard, State of New York. All competitors must be regularly enlisted members, in good standing, of the regiment or battalion which they represent, and must be certified to have been such on June 1st, 1877.

Prizes.—1st, to the regiment whose team makes the highest score, a Gating gun, presented by the Gating Gun Company, valued at \$2,000; 2d, to the regiment whose team makes the second highest aggregate score, a trophy, value \$100; 3d, to the regiment whose team makes the third highest aggregate score, a trophy, value \$50.

Competition VI.—"New York State National Guard" Match. Conditions.—Open to teams of twelve from each regiment or battalion of infantry of the National Guard of the State of New York, each man being certified by his regimental commander to be a regularly enlisted member in good standing of the regiment or battalion he represents, and to have been such on June 1st, 1877.

Prizes.—1st, to the regiment or battalion whose team makes the highest aggregate score, the N. Y. State prize, a trophy, presented by the Commander-in-Chief, on behalf of the State of New York, value \$500; 2d, to the regiment or battalion whose team makes the second highest aggregate score, a trophy, value \$100; 3d, to the regiment or battalion whose team makes the third highest aggregate score, a trophy, value \$75; 4th, to the regiment or battalion whose team makes the fourth highest aggregate score, a prize, value \$50.

Competition VII.—"Army and Navy Journal" Match. Conditions.—Open to teams of twelve from all regularly organized military organizations in the United States, including the Regular Army, Navy and Marine Corps. All competitors to be regularly enlisted members, in good standing of the Regiment, Battalion, Corps, or Troop they represent, and to have been such on June 1st, 1877, and to appear in the uniform (full dress or fatigue) of the organization which they represent.

Prizes.—1st, to the organization whose team makes the highest aggregate score, a Silver Trophy, manufactured by the Gorham Company, and presented by Col. William C. Church, on behalf of the Army and Navy Journal, valued at \$750. This prize is to be won three times before becoming the property of the winner. It will be held for a year by the officer commanding the winning corps.

Competition VIII.—"First Division National Guard" Match. Conditions.—Open to teams of twelve from each Regiment or Battalion of Infantry in the First Division of the National Guard, S. N. Y. All competitors to appear in the uniform of their corps (full dress or fatigue), and to be certified by their Regimental Commander to be regularly enlisted members, in good standing, of the Regiment and Battalion they represent, and to have been such on June 1st, 1877.

Prizes.—1st, To the Regiment or Battalion whose team makes the highest aggregate score, the N. Y. State Division Prize; value, \$100. 2d. To the Regiment or Battalion whose team makes the second highest aggregate score, a Trophy; value, \$75. 3d. To the Regiment or Battalion whose team makes the third highest aggregate score, a Trophy; value, \$50.

Competition IX.—"Second Division National Guard" Match. Conditions.—Open to teams of twelve from each Regiment or Battalion of Infantry in the Second Division of the National Guard, S. N. Y. All competitors to appear in the uniform of their corps (full dress or fatigue), and to be certified by their Regimental Commander to be regularly enlisted members, in good standing, of the Regiment or Battalion they represent, and to have been such on June 1st, 1877.

Prizes.—1st, To the Regiment or Battalion whose team makes the highest aggregate score, the N. Y. State Division Prize; value, \$100. 2d. To the Regiment or Battalion whose team makes the second highest aggregate score, a Trophy; value, \$75. 3d. To the Regiment or Battalion whose team makes the third highest aggregate score, a Trophy; value, \$50.

Competition X.—"Short Range Team" Match. Conditions.—Open to teams of five from any regularly organized Rifle Club or Association, or Military Organization (Troop, Battery, or Company) in the United States. Distances, 200 and 300 yards; rounds, seven, and two sighting shots at each distance. Weapon, any Rifle or Carbine within the rules. Position, standing. Entrance fee, \$1 each man. More than one team may be entered from the same organization, but same individual will not be allowed to appear in two teams.

Prizes.—To the team making the highest aggregate score, a Trophy; value, \$50. 2d. To the team making the second highest aggregate score, a Trophy; value, \$25. 3d. To the team making the third highest aggregate score, a Trophy; value, \$15.

Competition XI.—"Inter-State Military" Match. Conditions.—Open to one team from each State and Territory in the United States, consisting of twelve men, chosen in such a manner as shall be prescribed by the Military Authorities of each State or Territory, from any one or more of the regularly organized Regiments, Battalions, Companies of uniformed Militia. Each team must be provided with a certificate from the Adjutant-General of the State they represent, certifying that each of their number is a regularly enlisted member of their uniformed Militia, in good standing, and was such on the 1st day of June, 1877. They shall appear in the uniform of their corps. Distances, 200

and 500 yards. Position, at 200 yards, standing; and at 500 yards, any. Weapon, the authorized Military Rifle in use by the National Guard of the State or Territory which the team represents. In cases where the State has adopted no particular model (which must be certified to by the Adjutant-General), the team will be allowed to use the rifle in use by the Regular Army of the United States, or by the uniformed Militia of any other State. Rounds, ten at each distance. Entrance fee, \$2 each man.

Prize.—A large bronzed "Soldier of Marathon," presented by the Commander-in-Chief on behalf of the State of New York, to be shot for annually at Creedmoor, and to be held during the year by the Adjutant-General of the State whose Team may win it; value, \$250.

Competition XII.—"Inter-State Long Range" Match. Conditions.—Open to teams of four from all Rifle Associations or Clubs in any State or Territory in the United States that may have affiliated with the National Rifle Association previous to the match. Distances, 800, 900 and 1,000 yards; 15 shots at each distance, without sighting shots. Weapon, any Rifle within the Rules. Entrance fee, \$5 each team.

Prize.—A trophy to be held for the year by the successful team, which shall be deposited in some central place in the State whose team may win it. Each member of the winning team to receive a gold badge, presented by the N. R. A.

Competition XIII.—"Wimbledon Cup." Value, \$500. Presented by the National Rifle Association of Great Britain to the N. R. A. of America, to be competed for on conditions to be decided upon by the National Association of America.

Open to all citizens and residents of the United States. Distance, 1,000 yards. Thirty shots; no sighting shots. Weapon, any Rifle within the Rules. Position, any without artificial rest. Entrance fee, \$1.

To be held by the winner till the next Fall Meeting of the N. R. A., when it will be shot for on the same conditions. Won in 1875 by Henry Fulton; in 1876 by Isaac L. Allen.

Competition XIV.—"Long Range" Match. Conditions.—Open to all comers. Distances, 900, 1,000, 1,100 and 1,200 yards. Position, any. Rounds, ten, with two sighting shots at each distance. Weapon, any Rifle. Entrance fee, \$—.

Steward's Aggregate Prizes.—The following prizes, offered annually by Mr. J. H. Steward, of No. 406 Strand, W. C., London, England, the appointed official to this association and to the National Rifle Association and National Artillery Association of Great Britain, will be awarded as follows: To the marksman making the highest aggregate score in Competitions V., VI. and VIII., or V., VI. and IX., a Steward's New Camp Binocular Field Glass, as used officially at Wimbledon, value, \$45. To the marksman making the highest aggregate score in Competitions II., III. and XIV., a Lord Dury Telescope, value, \$10.

The following match has been adopted by the National Rifle Association, and will be shot about 1st of October, 1877: exact date to be announced on Bulletin board during this fall meeting:

"Military Championship Match of the United States of America." To be established (1877), divided into two stages.

Conditions.—First Stage.—Open to all members of the army, navy or Marine Corps of the United States, or of the National Guard of any State. Each competitor to appear in the uniform (full dress or fatigue) worn by the organization of which he is a member. Distance, 200, 500, and 600 yards. Rounds, seven at each distance, and two sighting shots. Weapon, the authorized military arm of the organization to which the competitor belongs. Positions, at 200 yards, standing; at 500 and 600 yards, any with head toward the target. Entrance fee, \$2.

Prizes.—1st prize, cash \$50. 59 prizes, each cash \$5, \$205.

Conditions.—Second Stage.—Open to the highest sixty in the first stage. The winner of the first prize in this stage is entitled to the "Championship of the United States of America" for one year. Distances, 800, 900 and 1,000 yards. Rounds, seven at each distance, and two sighting shots. Weapon, special Military rifles, which will be issued on the range to each of the sixty competitors, the winner of the first prize in the first stage to have first choice of the rifle; the winner of the second prize, the second choice, and so on. Two days will be allowed for competitors to practice. The rifles will be received for when issued, and must be returned to the Superintendent of the Range at the conclusion of each day's practice. Position, any. Entrance fee, \$1.

Prizes.—1st prize.—The "United States Military Championship Grand Gold Medal," presented by the National Rifle Association, value \$100, and cash \$100—total, \$200; 2d prize, cash \$50; 3d prize, cash \$25. Three prizes, total, \$275.

"International Long Range" Match for the championship of the World—open to riflemen of all countries. Thursday, Sept. 13th, 1877, first day: Friday, Sept. 14th, 1877, second day. Commencing each day at 11 A. M.

Conditions.—Teams.—Each team shall consist of eight men. Members of the various teams participating must be native-born citizens and residents of the various countries they respectively represent, except in the case of teams representing a provincial territory of a government, in which case a residence in the province will be sufficient, provided the member is a native-born subject of the parent country.

Rifles.—Any, not exceeding ten pounds weight. Minimum pull of trigger, 3 pounds.

Distances.—800, 900 and 1,000 yards. Number of Shots.—Thirty at each range, by each competitor. No sighting shots. Match to last two days. Competitors to fire fifteen shots at each distance upon each day, commencing at 800 yards.

Position.—Any, without artificial rest. Entrance Fee.—None.

Previous Practice.—Competing teams shall be allowed the use of the range for one week previous to the match, but on the days of this match no person will be allowed to shoot on the range at any of the distances prescribed herein, except as a competitor.

Captains of the competing teams shall elect two referees, and the referees so chosen shall appoint an umpire, whose decision, in all cases, shall be final.

Prize.—An American Centennial Trophy. Such trophy to be shot for in each subsequent year, upon the same terms, in the country of the team holding it, at such time and place as said team, or a majority thereof, shall prescribe. Each member of the winning team to receive a medal representing the trophy.

Sights, targets, marking and scoring in the foregoing match to be according to the printed regulations of the National Rifle Association of America.

—According to Voltaire, perfection is attained by slow degrees; she requires the hand of time. This is peculiarly the case in inventions and discoveries. For instance, B. T. Habbit has been forty years in applying and perfecting his chemical science. Therefore we have his new Toilet Soap, an article for the toilet and bath room that cannot be overpraised, for it unites every excellence. As a test, it is found to be the most admirable thing in the world for the delicate skin of babies.—Ed.

—The national pastime of Russia is hunting wolves, a species extremely fierce and rapacious in their nature. It is said that since the serfs have been emancipated they are unwilling to act as drivers in wolf hunts on account of the dangers attending the sport. Statistics show that in 1875, 161 persons were killed in that country by wolves, and the loss in domestic animals from the same source is estimated at \$12,500,000 per annum.—Ex.

—A red fox has been turned loose on Oak Island, and New York sportsmen propose to have a fox hunt there in the fall.

Game Bag and Gun.

GAME IN SEASON FOR AUGUST.

Table listing game species in season for August, including Red-backed sandpiper, Green marbled godwit, and others.

"Bay birds" generally, including various species of plover, sandpiper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets, etc.

The frequent alteration of game laws makes such confusion that sportsmen are kept quite in the dark as to when shooting on various kinds of game is permitted.

Table with columns for States, Pinnated Grouse, Ruffed Grouse, Quail, and Woodcock, listing seasonal periods.

A law was passed in Nebraska last February, prohibiting the shooting of any kinds of wild bird except waterfowl, snipe, waders and woodcock.

SMALL BORE VS. LARGE BORE GUNS.—As this subject is one of material interest to your readers, I may be pardoned if I lay before American gentlemen the experience of an English sportsman who has paid—con amore—a great deal of attention during a sporting experience of twenty-five years to this and kindred gunnery matters.

I may premise that the practical superiority in the field of the small over the large bores has long been an axiom with me. Years ago I advocated their use in the columns of the English Field, and not without some satisfaction have I of late noticed that their use has become far more general in England than formerly.

The first gun I ever used was a 16-bore, made by D. Egg, who was a noted maker in his day. It was light, but shot well; and many a long shot have I made at widgeon and curlew, both birds wary and difficult of approach.

Some years after I shot for four consecutive seasons with two brothers, who habitually used 18-bore ML's, and better shooting or more frequent killing at long ranges, I have seldom seen. One of these, weighing about 6 1/2 lbs., was made by Tatham, of London, and the other, weighing about 6 1/2 lbs., by J. D. Douglall.

Very truly yours, FOREST AND STREAM.

Since writing the above I have received the Field of July 14 and 21, from which it would appear that in the fortnight's shooting at the Gun Club and Hurlingham, London, Eng., Mr. J. B. Davall killed, with a 16-gauge, S. Grant, 40 out of 49 birds, and Lord Westbury killed, with a 20-gauge, Reilly, 60 out of 81 birds.

A SUBSTITUTE FOR CHOKER BORING.—Enfield, N. C., July 20.—I notice in FOREST AND STREAM and KOLAR AND GUN that "N." writes experiments with harder shot, under the correct impression that many pellets are rendered useless by friction in passing through the bore, his experiments showing the shot cut nearly half away.

As well as I remember the idea was obtained from "Hints to Sportsmen," by Dr. E. J. Lewis, of Philadelphia, years ago, when a Westly Richards fourteen-gauge muzzle-loader was considered the best and handsomest gun in the world.

It is easy to make a few thousands of these during the dull times of the summer months. To make them for a twelve-bore, take a loading stick which just enters a thirteen-bore, get No. 13 thin card-board wads and a few quills of ordinary cap paper, and cut the paper into strips 1 1/2 x 4 1/2 inches.

MASSACHUSETTS, Plymouth, Aug. 16.—The present month has been very favorable for bay-bird shooting, and more birds have been bagged than for many years past.

Salem, Mass., Aug. 20.—I am told by reliable persons that some good birds were shot at Eagle Hill, Ipswich, last week by a party from Peabody.

NEW YORK.—Hornellsville, Aug. 19.—We have been having some fair woodcock shooting since my last report, they have all been shot in the corn-fields and we use cockers to flush them.

PENNSYLVANIA.—Junata.—A white deer has been seen in this neighborhood, and efforts are to be made for its capture alive.

MICHIGAN.—Detroit, Aug. 18.—Wm. Holland and Geo. Avery were out gunning and made a bag of 31 woodcock. On the 14th inst. Jas. McAdam made the fine bag of 41 woodcock.

IOWA.—Advices from Iowa state that chicken shooting will be excellent along the line of the Burlington Cedar Rapids and Northern Railway this fall.

OHIO.—Cincinnati, Aug. 14.—The prospects of game in Ohio are very good. A friend, writing from Wapakonita, Auglast Co., says, "Quail shooting will be better than it has been for years."

stroyed three traps set for quail, and had a set-to with the owners of them. The trains are now running on the new Cincinnati Southern Railroad, and letters from farmers along the road state that quail shooting will be splendid this fall.

MINNESOTA.—Minneapolis.—Robert McMullen, of the State National Bank, is the first sportsman to report with a fine bag of prairie chickens, the result of a few hours' shooting.

NEVADA.—Quail are very plenty in El Dorado Canyon.

CALIFORNIA.—South Barbara, Aug. 14.—Deer are reported in great numbers on the San Julian.

PIGEON MATCHES.

—Capt. Bogardus shoots at Newark, Ohio, Aug. 29, and at Crawford, Ind., Aug. 30 and 31.

RHODE ISLAND.—Newport, Aug. 17.—Challenge match between the Philadelphia and Narragansett gun clubs; teams of five men, 25 birds each, 28 yards rise, 80 yards boundary, Hurlingham rules governing. Summary:

Summary of Rhode Island match: Martin Stanburn, E. W. Davis, Perry Belmont, Travis Van Buren, S. H. Robbins.

Summary of Philadelphia match: John A. Brown, George S. Gerhard, E. B. Grubb, Rudolph Ellis, John King.

Newport, Aug. 21.—Narragansett Gun Club grounds. Match for the \$500 subscription cup: ten birds each, twenty-eight yards rise, Hurlingham rules.

THE SCORE.

Score for Newport match: C. B. Moore, H. W. Haleck, Perry Belmont, Travis Van Buren, S. H. Robbins, Lawrence Curtis.

On shooting off ties, Belmont took cup and Haleck second money.

CONNECTICUT, Willowbrook.—It is proposed to add a new feature to the attractions here by providing for trap glass-ball shooting and so to bring out the shot-gun experts.

MATCH FOR THE CHAMPIONSHIP BADGE.—LONG ISLAND.—Parkville, Aug. 16.—The first match for the badge for the glass-ball shooting championship of America resulted in the appended score. The entries were at \$10 each, the winner of the badge to receive \$10, the second \$20, the third \$12, and the fourth \$8.

Score for Connecticut match: Bogardus, Duston, Gilderleeve, Thompson, Talbot.

The poor scores were due to the traps used, the Bogardus traps not being noted for furnishing easy shooting. We understand that Captain Bogardus will put up the medal again during the coming month.

NEW JERSEY.—Paterson, Aug. 21.—A series of handicap matches were shot on the Olympic Grounds. The first event of the day was a match of fifty glass balls each, between Ira A. Paine and Mr. C. Reinhardt, of Paterson.

KENTUCKY.—Covington.—The gun club of Covington held their annual shoot on their grounds on Thursday, August 16. The shooting opened with the club badge competition; 10 birds each, 21 yards rise, 80 yards boundary.

Score for Kentucky match: C. Havren, J. Gutzey, G. L. Birch, E. Booth, A. Peck.

IOWA.—Des Moines.—On the 8th of August the Sportsmen's Club held their second semi-annual pigeon match for the champion badge. T. D. Booth was the first victor in the friendly strife, winning the badge six months ago.

Score for Iowa match: F. D. Booth, S. L. McKisson, Harry Sullivan, J. W. Thornton, C. N. Gilmore, F. A. Perceval, F. Vincent, A. Bryan.

This was followed by a match (sweepstake) for \$75, double-gun, breech-loader, Wesson, maker, five birds.

Score for Iowa sweepstake: Vincent, Thornton, Lowe, Ainsworth, Snythe, Bird, Sheldon.

The tie between Lowe and Bird was settled by arbitration. The day closed with a sweepstake for three prizes, with the following score:

Score for Iowa three prizes: Lowe, Vincent, Hills, Bird, King.

S. Lowe first prize, W. A. Reilly second, and Fred. Blitt third.

Sea and River Fishing.

FISH IN SEASON IN AUGUST.

FRESH WATER.	SALT WATER.
Trout, <i>Salmo fontinalis</i> .	Sea Bass, <i>Sciaenops ocellatus</i> .
Salmon, <i>Salmo salar</i> .	Sheepshead, <i>Archosargus probatocephalus</i> .
Salmon Trout, <i>Salmo confinis</i> .	Striped Bass, <i>Roccus limnatus</i> .
Land-locked Salmon, <i>Salmo gleri</i> .	White Perch, <i>Morone americana</i> .
Grayling, <i>Thymallus tricolor</i> .	Weakfish, <i>Cynoscion regalis</i> .
Black Bass, <i>Micropetrus salmoides</i> .	Bluefish, <i>Pomatomus saltatrix</i> .
<i>M. nigricans</i> .	Spanish Mackerel, <i>Cybutum maculatum</i> .
Mascelonge, <i>Esox nobilior</i> .	Cero, <i>Cybutum regale</i> .
Pike or Pickerel, <i>Esox lucius</i> .	Honito, <i>Sarda pelamys</i> .
Yellow Perch, <i>Perca flavescens</i> .	Kingfish, <i>Hetericurus nebulosus</i> .

FISH IN MARKET.—Fish of all kinds are very abundant. Spanish mackerel are being caught in large quantities off Long Island. By the last steamer from England, Mr. Blackford received a fine lot of English soles and turbot. Our quotations for the week are as follows:

Striped bass, 13 to 20 cents per pound; smells, 20 cents; bluefish, 8 to 10 cents; salmon, frozen 25 cents; mackerel, 10 to 35 cents; weakfish, 10 cents; white perch, 15 cents; Spanish mackerel, 15 cents; green turtle, 12 cents; halibut, 15 cents; haddock, 6 cents; king-fish, 25 cents; codfish, 8 cents; blackfish, 15 cents; herrings, 6 cents; flounders, 8 cents; porgies, 10 cents; sea bass, 18 cents; eels, 13 cents; lobsters, 8 cents; soft clams, 30 to 60 cents per 100; Long Island trout, 50 cents; Canada do., 25 cents; sheepshead, 20 cents; whitefish, 15 cents; hard shell crabs, \$3 per 100; soft crabs, \$1 per dozen; frog's legs 35 cents per pound.

FISHING UP THE JORDAN.

CHICAGO, Aug. 8, 1877.

EDITOR FOREST AND STREAM:

Hot for Michigan, the home of the little fishes—where the speckled trout and grayling abound; where the cool springs and dense forest temper the rays of a July sun—whose nights are so cool that sleep is so refreshing, there the tired, wearied brain gladly seeks the rest desired in the city. Thus we soliloquized as we trod the deck of the fine Goodrich steamer at the close of a smoking-hot day in mid July accompanied by the wife and youngsters. We were going north on our fishing trip. Proceeding up the G. R. and I. R. R. we found several parties on the same errand. We noticed with pleasure the fine fishing tackle many of them had. Here and there we noticed an Orvis rod and reel in the rack overhead; but something pleased us better than this—it was that so many ladies accompanied their husbands, and took so much care of the fine rods that we suspected they intended to cast a fly in these famous waters. Towards evening parties began to drop out. Some went to Traverse City, others at Kalkaska to fish in the Boardman; again another party was dropped at Boyne Falls. The train left us in the midst of a dense forest. One house did duty for a country store, post office, and station; and general information could be obtained here of the whole country around it. Soon we were at home at the supper table in a comfortable farm house. Our Michigan appetite appeased we began to arrange for fishing. We are not strangers here; fishing four seasons has given us some acquaintance with these hardy settlers; and we can obtain the best information of noted trout streams and creeks; but this year we want to go up the Jordan; so meeting a friend in Petoskey by appointment, we went to Charlevoix, then by steamer to the mouth of the Jordan. Taking along our own boat we found, truly, "Jordan a hard road to travel," but the fishing is splendid, and well repays the many wearying hours of pulling to get up against a sharp current. After getting up about nine miles one can fish all they want. Parties up there caught from thirty to fifty each rod per day, while away up the river it is common to take more than one hundred a day, but the best fishing place is up above Webster's, where fish can be caught by the greenest hand that ever wielded a rod. Besides this beautiful Jordan there are many other creeks and streams that abound in fishes. We caught a nice mess of speckled beauties in a creek not knee deep, yet a rushing, boiling little stream, all riffles and trout holes, the water intensely cold, and trout measuring twelve inches long, with plenty of fight in them. The best place to get to these streams is to take the G. R. & I. R. R. to Boyne Falls, thence by steamer to Charlevoix; get a guide who furnishes a boat, etc., then for a long pull up stream to the fishing grounds. To those who do not mind a little rough riding and wading, write to Perry Andreas, of the Manceona House, Antrim County; he can procure you a team that will take you to head of the Jordan. Mr. Andreas is a fisherman, and is always willing to help others by his advice. By writing him early in the season he can procure you a boat if needed, so that you drift down with the current and fish as you go down. Further, I would say go early in the season. Any one going in August will find the trout pretty well educated. June is the best time for trout, though there are times when they will rise to a fly quite eagerly. I found the white miller, coachman and fly very taking flies, but a small piece of salt pork or the ventral fin of a trout will take more fish than any fly in your book. In conclusion, "Any one who has ever fished in this region will want to come again."

NORMAN.

MAINE—Parnachene Lake.—I feel it a duty I owe to the large and genial fraternity of gentlemen who "dare trust in Providence and go a-angling," to recommend the many advantages of Spoff's Flint's camp. The fishing is excellent in June, but I am told that in September it is superb. The Rangeley and Richardson Lakes are well known, and their claims have been thoroughly advertised. A writer on the subject of these lakes, in a recent number of *Scribner's Magazine*, says, in effect, that west of the Rangeley lakes, in an almost unvisited solitude, is Lake Parnachene, to which the adventurous sportsman might penetrate by rowing sixty miles up the Magalloway River. The writer promises such a one grand sport, but intimates that three weeks would be necessary to make the trip, and implies that the place is somewhat inaccessible. The writer is partly right and partly wrong. He does not exaggerate the resources of the place. The wilderness is grand,

the unbroken solitudes are impressive, the scenery that one looks upon as he treads his way up the crooked Magalloway—that winds and turns like a second Meander—is picturesque and varied beyond expression, full of strange lights and shades, delightful surprises, weird glimpses of sunlight weaving its meshes of gold, with the cavernous solitudes of the woods that stretch off in dark and mysterious perspective; and, above all, there is a sense of novelty that is an inspiration. You see the great primeval forests, you feel that these solitudes have never been invaded or spoiled by civilization. As might be expected, the fishing is extraordinary. One lake that we camped upon had never been visited by anglers before last summer, and was a solitary place—the haunt of a royal race of trout. In the clear depths of that lake the trout had never been disturbed save by the plunges of some predatory hawk, and for generations had been permitted to die of old age. It is believed that they are in no respect surpassed by those of Rangeley. They are caught three or four pounds in weight, and not infrequently are those found which kick the beam at five to seven. They may be taken by the artificial fly, and indeed no other lure should be used. The locality is not inaccessible, nor is the journey arduous else than delightful in the extreme.

The waters of the Rangeley region flow into Umbagog Lake, and thence westerly into the Androscoggin River. Just below Lake Umbagog, and almost in sight of it, the Androscoggin receives the waters of another tributary from the north, known as the Magalloway River. About sixty miles up the Magalloway is Parnachene Lake, and within a short distance of the lake is the log camp of T. S. Flint, the very centre of the best fishing and hunting of the entire region. The camp in question is a well-constructed log-house, and is provided with good beds, an efficient cook, and with all needed comforts. Sportsmen will do well to make this camp their headquarters from which to start out on camping expeditions. Flint is an expert guide, and one that loves nothing so much as good sport. In one eddy, on the Magalloway, not a quarter of a mile from Flint's Camp, a gentleman told me he counted no less than two hundred trout, varying in weight from two to six pounds. T. S. Flint, called "Spoff" for short, has invested considerable money and labor to make his camp comfortable, and is ready to welcome and entertain all who come. He has also cut carries to different localities. His appointment by different parties as supervisor of the forests and the lumbering interests of the region affords him special privileges and prerogatives. The best way of reaching the wilderness is to take the Boston, Concord and Montreal R. R., and go to Lancaster, N. H.; thence you may proceed without delay to Groveton Junction on the Grand Trunk R. R., thence to North Stratford on the Connecticut River. Here you will find a stage ready to take you twelve miles up the Connecticut River to Colebrook, N. H. This will end the first day's journey from Boston. The next morning early take the stage for Errol Dam on the Androscoggin, where you arrive in time for the steamer that runs up the Androscoggin and Magalloway to Brown's Farm, where you take a conveyance eight miles up the Magalloway to Azis-eo Falls; at this place you will find a nice camp, just finished, where you spend the night. From here to Spoff Flint's camp on Parnachene Lake, is about forty-five miles. Taking a guide and boat, you may, by hard work, reach Spoff's in a day, though it is better to take two. Spoff Flint's address is, F. L. Flint, Wentworth's Location, N. H. Letters thus addressed will be forwarded to him promptly.

E. C. S.

Mount Desert, Aug. 20.—Sharks are being caught off Baker's Island. The sport is exciting and furnishes amusement for quite a number of yachtsmen.

MOVEMENTS OF THE FISHING FLEET.—For the past week the number of fishing arrivals at this port has been 18 from the Banks, 34 from Georges, 28 from Shore mackereling trips and one from the Bay St. Lawrence. Total, 81. Receipts, 1,035,000 lbs. codfish and 420,000 lbs. halibut from the Banks, 510,000 lbs. codfish and 14,000 lbs. halibut from Georges, 400 bbls. Shore mackerel, 210 bbls. Bay do.—*Cape Ann Advertiser*, Aug. 17.

Mass.—Boston, Aug. 15.—Tuesday was a most exciting day on the Merrimac. The river was full of horse mackerel, which had come in from the sea to feed upon the menhaden. They were breaking water in every direction. A half dozen boats had each made fast to one of these velocipedes, and such a sight never was witnessed before by the residents. The fish would drive the boats through the water at a much faster rate than any steamer could tow them; and in one case the boat in which Mr. Joel Hodgdon was, ran into the Brown dock, and as quick as lightning ran out again. The sport was witnessed by hundreds of people, and afforded great amusement.

Martha's Vineyard.—Capt. Morgan's yacht the Storm King is now on a fishing cruise with a party of fourteen Baptist clergymen.

CONNECTICUT—Northfield.—The Northfield Knife Company's reservoir, stocked with black bass in 1868, now furnishes some very good fishing. Three bass caught last week aggregated 11 lbs. 2 oz.

Hartford, Aug. 16.—Bass are caught in fair numbers in the river above the toll-bridge. The *Courant* heads a Rangeley Lakes letter "Speckled Whales."

East Hampton, Aug. 16.—Pike, perch and bass are caught in the lake with such success as to afford amusement for fifteen or twenty boats daily.

New Milford.—Isaac Smith recently captured in Lake Waramaug a black bass weighing seven pounds, the largest ever taken in those waters.

Eldred, N. Y., Aug. 20.—We are here 2,300 feet above the sea level, in the centre of a fine game country. The streams are full of trout. Partridges will be very abundant next month. There were no fires here in the woods last spring to destroy them. From the house we frequently see deer in the ry fields, and as they are most abundant there is promise of excellent shooting in September. Eldred is six miles from Shohola on the Erie R. R. Bradley gives sportsmen good accommodation.

A. W. C.

Sodus Bay, N. Y., Aug. 20.—Pickerel fishermen are taking advantage of the absence of the small fish which usually furnish food for this voracious feeder, and are consequently making some splendid catches. A party of four with two boats, in less than two days' fishing last week, caught more than one hundred fish.

Hornellsville, N. Y., Aug. 19.—The party that left here a few days since for Potter County, Pa., have returned, bringing 600 trout as the result of their camp out.

JOHN.

—Capt. P. C. Wilbur, E. R. Wilbur and W. H. Shaw, of Sayville, L. I., caught 43 bluefish in 2 1/2 hours, on Saturday, Aug. 18th, in Great South Bay, near Point of Flats.

Big Turtle.—A loggerhead turtle, weighing 300 pounds, the largest one ever known to have been caught so far north, was taken in the Fire Island Inlet last week.

NEW JERSEY—Kinney's Ashley House, Barnegat Inlet, Aug. 16.—We are taking bluefish by the boat load. They run from five to twelve pounds. For the past three days acres of them have been off and on the Bar. Sheepshead are biting better.

B.

Aug. 19—8 P. M.—Five yachts just landed with from 800 to 1,200 pounds of bluefish each, which run from 9 to 15 pounds. The best fishing for two years; not less than 6,000 pounds taken to-day.

PENNSYLVANIA—Clearfield, Aug. 17.—Black bass fishing excellent.

New Castle, Pa., Aug. 18.—Joe Johnston captured forty-nine bass in the Mahoning one day last week. The aggregate weight was fifty-two pounds.

Bristol, Pa., Aug. 20.—Black bass are caught in the canal above the bridge. They are of good size and bite freely.

—Angling in the upper waters of the Chesapeake has been unusually poor this summer owing to the frequent rains. In the Delaware, white perch are more numerous than usual, and some large catches have been made with bowlines.

IOWA—Des Moines.—On the 9th of August a party of Polk County Anglers started on a piscatorial mission to Spirit Lake, in Northern Iowa, to prey upon the innocent settlers along the line like "ye anglers of old." They propose to remain some three weeks, unless the enraged populace of that country rise in their might and drive them out for depopulating the lake. Game fish in this part of the country are scarce, the only ones coming particularly under that head being pickerel, wall eyed pike and salmon, and they are scarce. True, we have some cat fish and suckers, but there is no sport in waiting all day to catch a little half pound cat.

WISCONSIN—Ashland, Aug. 11.—Mayor Heath, of Chicago, has been on a grand trouting expedition on the Sioux and Sand rivers. Capt. W. W. Rich and Guy Campbell caught 127 fine trout in one day's fishing at Fish Creek last week.

MICHIGAN—Cheboygan, Aug. 10.—A young lady—Miss Crocker—while fishing in Mullett's Lake a few days since, hooked and landed a maskelonge, three feet eleven and one-half inches long, weighing thirty-four pounds. It was the largest fish ever caught in these waters.

—The locust promises to become an important article of commerce. France annually spends immense sums of money in the purchase of cod roe as bait for the sardine fisheries. The importation of roe from Norway is more than 40,000 barrels annually. The locust proves an excellent substitute for the roe, and it is probable that an extensive traffic in the article will spring up between France and Algeria.

—When ought mariners to have fruit at sea? When they stem the currents.

QUEER CAPTURE OF A PIKE.—A correspondent of an English paper ventures for the following fishing extraordinary:

A stick was thrown into the water for my dog (a fox terrier) to fetch out. Seeing the dog in difficulties with his stick (a straight cane), I went down to the water's edge and, on his nearing the bank, saw a fish struggling on the stick. I helped the dog out, and found on the stick a pike weighing two pounds. The stick had gone into his mouth, and projected several inches through its gills. It is presumed that the fish rose at the brass ferrule of the cane, and that the dog in its struggle forced the stick through its gills.

Tiffany & Co., Silversmiths, Jewelers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. TIFFANY & CO.

are also the agents in America for Messrs. PATEK, PHILIPPE & Co., of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones General Jewelry, Bronzes and Artistic Pottery is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York!





Gunpowder.

# ORIENTAL POWDER MILLS

MANUFACTURERS OF ALL KINDS OF GUNPOWDER

Office—13 BROAD STREET, BOSTON.

BRANDS—DIAMOND GRAIN. FALCON DUCKING. WILD FOWL SHOOTING. WESTERN SPORTING. (Oriental Rifle.)

The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES.

J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. Cobb & Wheeler, Agents, 9 State St., Chicago, Ill. C. J. Chapin, Agent, 215 Locust St., St. Louis, Mo. Agencies in the principal cities in the United States.

## Lafin & Rand Powder Co.

No. 26 MURRAY ST., N. Y.

Sole Proprietors and Manufacturers of

### Orange Lightning Powder.

No. 1 to 7, strongest and cleanest made, in sealed 1 lb. canisters. Higher numbers specially are recommended for breech-loading guns.

### Orange Ducking Powder.

For water-fowl, strong and clean. No. 1 to 5 in metal kegs, 6 1/2 lbs. each, and canisters of 1 and 2 lbs. each.

### Orange Rifle Powder.

The best for rifles and all ordinary purposes. Sizes, FG, FFG and FFFG, the last being the finest. Packed in wood and metal kegs of 25 lbs., 12 1/2 lbs. and 6 1/2 lbs., and in canisters of 1 lb. and 1/2 lb. All of the above give high velocities and less resistance than any other brands made, and are recommended and used by Capt. A. H. BOGARDUS, the "Champion Wing Shot of the World." BLASTING POWDER and CHEMICAL BLASTING APPARATUS. MILITARY POWDER of all kinds on hand and made to order. Safety Fuse, Frictional and Platinum Fuses. Pamphlets, showing sizes of the grain by wood cut, sent free on application to the above address.

## THE HAZARD POWDER CO. MANUFACTURERS OF GUNPOWDER.

### Hazard's "Electric Powder."

Nos. 1 (fine) to 6 (coarse). Unsurpassed in point of strength and cleanliness. Packed in square canisters of 1 lb. only.

### Hazard's "American Sporting."

Nos. 1 (fine) to 3 (coarse). In 1 lb. canisters and 6 1/2 lb. kegs. A fine grain, quick and clean, for upland prairie shooting. Well adapted to shot-guns.

### Hazard's "Duck Shooting."

Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzle or breech-loaders.

### Hazard's "Kentucky Rifle."

FFFG, FFG, and "Sea Shooting" FG in kegs of 25, 12 1/2 and 6 1/2 lbs. and cans of 5 lbs. FFFG is also packed in 1 and 1/2 lb. canisters. Burns strong and moist. The FFFG and FFG are favorite brands for ordinary sporting, and the "Sea Shooting" FG is the standard rifle powder of the country.

**Superior Mining and Blasting Powder.** GOVERNMENT CANNON & MUSKET POWDER; ALSO, SPECIAL GRADES FOR EXPORT OF ANY REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER.

The above can be had of dealers, or of the Company's Agents in every prominent city, or wholesale at our office.

88 WALL STREET, NEW YORK.

## THE New Dittmar Powder.

THE CHAMPION POWDER OF THE WORLD For all off-hand shooting at short and long ranges. Unsurpassed for Cleanliness. Pleasant to shoot on account of little recoil and report. Desirable for hunting on account of little or no smoke. Unequaled for rapid firing, as it does not foul and heat up the barrel as black powder. Great accuracy, penetration and good pattern. Safer than black powder. Address:

CARL DITTMAR, NEPONSET, MASS.

New York, July 10, 1877.

EDITOR FOREST AND STREAM AND ROYAL GUN: Please say, for the information of some of my friends who may be misled by current statements, that I am still on the same powder for all our-door shooting, which I have used for several years past, never having risked the use of the nitrated powders except when shooting in a confined space indoors, when the smoke from any regular powder would produce a small rather offensive to some people, and cause somewhat greater obstruction to vision.

CAPT. A. H. BOGARDUS, Champion Wing Shot of the World.

Gunpowder.

## Warren Powder Mills, MANUFACTURERS OF BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS—Eureka, Continental, "Border Rifle," Snap-Shot, and Warren Sporting Cannon and Musket, U. S. Standard. The above can be had of the dealers, or at wholesale at the office, 27 DANE STREET, BOSTON, MASS., and of the agents, JOHN P. LOWELL & SONS, corner of Washington, Cornhill and Brattle Street, Boston, Mass. Jy19

### English Sporting Gunpowder.

CURTIS & HARVEY'S DIAMOND GRAIN. Nos. 2, 3, 4, 5, 6, 7 and 8, Superior Rifle, Endell Rifle, and Col. Hawker's Ducking. W. STITT, 91 Cedar Street, N. Y. Agent for the United States.

Fishing Tackle.

## Conroy, Bissett & Malleson

65 FULTON STREET, NEW YORK. Factory—Foot South 5th Street, Brooklyn, E. D.

### Six Strip Hexagonal Split BAMBOO RODS.

ENAMEL ALL PRESERVED ON THE OUTSIDE.

QUALITY GUARANTEED.

The annexed list will show the reductions we have made. We quote:

	Form-	Nov.
	erly.	
Fly Rods, 6 Strips, 2 Tips.....	\$40	\$25
Fly Rods, 6 Strip, 3 Tips, and duplicate Joint.....	55	35
Black Bass Rods, 6 Strip, 2 Tips.....	50	30
Black Bass Rods, 6 Strip, 3 Tips and Duplicate Joint.....	65	40
Salmon Rods, 6 Strip, 2 Tips.....	50	50

These Rods are, in all their parts, WHOLLY MADE BY HAND. Positively no machinery is used in any part of their construction. SEND FOR CIRCULAR.

We have but one grade of these rods—the best in the market.

## PHILADELPHIA Fishing Tackle House.



### A. B. SHIPLEY & SON, 503 COMMERCIAL STREET, PHILA.

Manufacturers of FINE FISHING TACKLE A specialty of GREEN HEART WOOD for Amateur Rod Makers. Rod Mountings in Seals for 75c. to \$3.75.

RODS, REELS, ETC., REPAIRED. Shipley's Self-Hooking Elastic Snells, "catch every fish that bites." Send for sample. For Trout on gut, 10c. each, 15c. per doz. For Bass on double gut, 12c. each, 15c. per doz. Highest premium at Centennial, 1876, and Franklin Institute, 1874.

The perfect revolving NEW TROLLING SPOON. The best in the world. It not to be found at your fishing tackle stores, these spoons will be forwarded by the manufacturer by mail. Price, \$1 each. JOHN H. MANN, Syracuse, New York. j23 1/2

### COMPETITION IS THE LIFE OF TRADE.

## J. B. CROOK & CO., FISHING TACKLE.

50 FULTON STREET, NEW YORK Makes the Immense Reductions.

Greenheart Rods for Trout and Bass Fishing, \$15 to \$30. Ash and Lancelwood Rods for Trout and Bass Fishing, \$7 to \$12. Everything else in proportion. Goods sent C. O. D. to all parts of the United States and Canada.

## H. L. LEONARD, BANGOR, MAINE.

Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

### Split Bamboo Rods a Specialty

Great reduction in prices. Trout Rods, full mounted, \$30, formerly \$50; other rods in proportion. Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof ferrule," and warranted against imperfections in material and workmanship. Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancelwood. MADE TO ORDER.

I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods. Also manufacturer of Patent Reels for Salmon and Trout fishing. The lightest, strongest, and handsomest Reels ever made. Full line of FISHING TACKLE always on hand. Send for circular and price list.

j27

Fishing Tackle.

# ABBEY & IMBRIE, ANDREW CLARK & CO. Fishers Tackle of Every Description. FINE GOODS FOR SPORTSMEN A SPECIALTY. NEW YORK, LONDON, REDDITCH, HAVANA AND RIO JANEIRO. Sent for Price List to 48 Maiden Lane N. Y. Do. 1,264.

## SKINNER'S New Fluted Bait.



The best bait used for Bass and Pickerel. Fishing Bass size, 75 cents; Pickerel size, \$1 each, by mail post-paid, on receipt of price. Eagle Claw, for catching Fish and Game, samples by mail, 35 and 75 cents. Send stamp for illustrated price list of Fishing Tackle and Sporting Goods.

FISH & SIMPSON, 132 NASSAU ST., NEW YORK.

### B. GREENWOOD, Manufacturer of Aquarium Greenhouse and Aquarium Cement, and dealer in Fish Food, Gold Fish, Water Plants, Fish Globes, and aquaria stock of all descriptions. Canaries, Cages, Rustic Baskets, Bird Houses, Sea Shells, etc., wholesale and retail.

Nos. 11 1/2 to 13 COLLEGE PLACE, Near Murray St. New York, N. Y.

## McBride Flies.

MEDAL AND DIPLOMA FROM INTERNATIONAL EXHIBITION, PA., 1876, DECREE FOR "EXCEPTIONAL NEAT WORK WITH SOLIDITY OF CONSTRUCTION." A fine assortment of FLIES for Trout, Salmon and Bass constantly on hand. Also Casting Lines. Flies carefully selected for the different seasons and waters.

Goods promptly made to order from any pattern desired. Address:

Miss Sara J. McBride, Mamford, Monroe County, N. Y.

W. HOLBERTON, Sole Agent for New York City. jy1



### THE NATURAL FOOD FOR BLACK BASS.

I have, after careful study, at last found a bait that excels all others for taking black bass. Sample by mail, 75c. The above cut represents the bait.

### J. F. MARSTERS, Manufacturer, 125 Nassau Street, New York. Send for Catalogue of Sporting Goods.

### DINCIEE SCRIBNER, Manufacturer of Salmon and Trout Rods, Salmon and Trout Files Casting Lines, Landing Nets, Gafts, etc.

Best Greenheart Rods at \$9, \$11 and \$13 each. Waterloo Street, St. Johns, N. B. jy12 6m

### Dr. Fowler's Celebrated Six Strip Bamboo Fly-Rods.

Improved and finished without cutting away the enamel. The strongest and handsomest rods in the world. Private orders solicited for all kinds of the tackle. Rods sent per express on approval. Send for circular. A. H. FOWLER, Ithaca, N. Y.

### Publications.

## New Game Laws Of the State of New York.

Just published in neat pamphlet form, the Game Laws of the State of New York, as amended by the last session of the Legislature. Price, single copies, 15 cents; four copies, 50 cents. Sent postage paid on receipt of price, by CHAS. SUTDMAN, PUBLISHER, 149 CHAMBERS ST., New York City, or this office. jy12 21

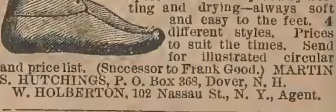
Publications.

## BINDERS.

Get your fine books bound. Art Journal bound uniform to London publishers' style. Picturesque America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done in two or three days if required. E. WALKER'S SONS, 14 Day street.

## Sportsmen's Goods.

GOOD'S OIL TANNED MOCCASINS. The best thing ever worn by sportsmen. Not injured by wetting and drying—always soft and easy to the feet, 4 different styles. Prices to suit the times. Send for illustrated circular and price list. (Successor to Frank Good.) MARTIN S. HUTCHINGS, P. O. Box 368, Dover, N. H. W. HOLBERTON, 102 Nassau St., N. Y., Agent.



## PECK & SNYDER'S



Now used by all the prominent catchers when playing behind the bat. We send samples, C. O. D., for \$3. Enclose stamp for the Athletes Journal, giving our latest prices of all goods in the sporting line. Address: PECK & SNYDER, Manufacturers, Ang 16 3m 124 Nassau street, N. Y.

## J. F. MARSTERS, Manufacturer of Superior ARCHERY.



5 Ladies' Lancer with double beautifully finished, post-hole, horn-tipped, each color; 4-foot, \$2.50; 4-foot, \$3.00; 5-foot, \$3.50. Gent's, same as above, 5-foot, \$3.50; 5 1/2-foot, \$4.00; 6-foot, \$4.50. Antlers' Arrows, plain wood, three feathers; 24-inch, \$1.50 per doz.; 28-inch, \$1.75 per doz. Gent's arrow, 5-foot, plain wood, three feathers; 25-inch, \$1.75; 28-inch, \$2.00. Superior polished and painted, \$2.00, \$3.00, \$4.00, \$5.00 per doz. Ladies' gloves with round tips \$1.25; gent's, \$1.50 each. Ladies' arm-guards, with elastic, \$1.25; gent's, \$1.50 each. Quivers for holding arrows, with belt, \$2 each. Straw targets, handsomely painted, \$25 above cut, 18-inch, \$2; 21-inch, \$2.50; 24-inch, \$3.75; 30-inch, \$4.50; 36-inch, \$5. Ebony and rosewood box with quivers, 45c, 50c, 75c each. Tassels, 50c and 75c each; bow strings each 40c; best, 50c. Iron target stands, \$4 each. Archery Book of Rules by mail, 25c. Also on hand and for sale all the necessary woods and trimmings for amateurs to make their own bows. All the above goods are manufactured by me and are warranted. Goods sent C. O. D. to all parts of the country.

J. F. MARSTERS, 125 Nassau St., New York, and 65 Court St., Brooklyn. ang 17

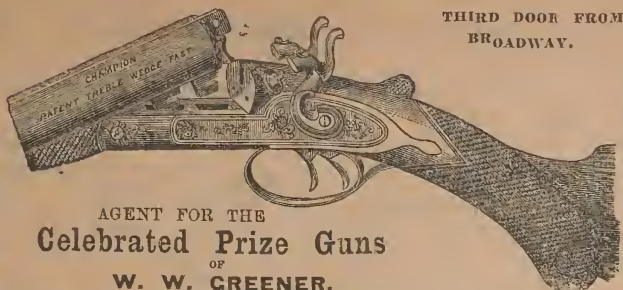
## SMITH BROS' BORAX, WARRANTED PERFECTLY PURE.

In one-pound packages, 25c.; half-lb. packages, 15c. Sold by Grocers and Druggists. Sole Agents, W. H. T. COLLIER & CO., San Francisco and New York. Ang 23 t

## LEESBURG ACADEMY.

An English classical and mathematical school for boys. Leesburg, Loudoun Co., Va. Principal, Thos. Williamson (Univ. Va.); Asst., Thos. S. Purdie, B. L. (Wash. and Lee Univ.). Leesburg is within 36 miles of Alexandria and Washington, on Washington and Ohio Railroad, in the Piedmont region of Virginia, proverbially healthy. Pupils prepared for the universities, any standard college, or for business. Board, with tuition in Latin, Greek, mathematics, etc., ten months, \$210. Day scholars, \$40, \$50 and \$60. References—Faculty of University of Virginia, Faculty of Washington and Lee Univ., Faculty of University of South, Faculty of Randolph Macon Univ., H. G. Aldersleeve, Ph. D., Johns Hopkins University; Hon. J. Rand Tucker, Hon. Eppe Hunt, etc. For further information apply to THOS. WILLIAMSON, Principal Leesburg Academy, Leesburg, Virginia. jy12 2m

**HENRY C. SQUIRES,**  
No. 1 CORTLANDT STREET,

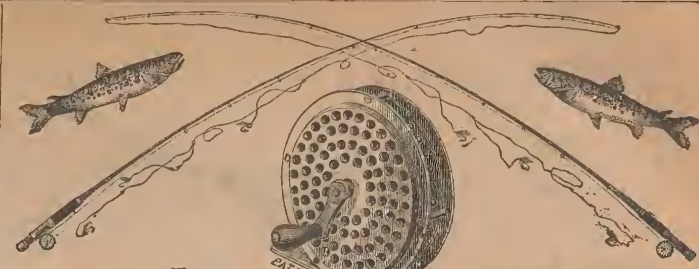


Winner of the Brandy Silver Cup in 1876, presented by Mr. Parry, bearing all best London antiques.

Winner of London Gun Trials, 1878, bearing 100 Marks.

AGENT FOR THE  
**Celebrated Prize Guns**  
OF  
**W. W. GREENER.**

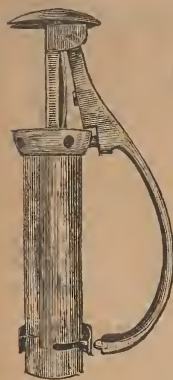
These guns have been winners in every trial during the last three years, competing with all the first-class makers in England. The shooting of every gun is guaranteed, and prices as low as consistent with good work. Guns built to exact order of sportsmen. I keep the best selected stock of guns by all the other makers to be found in this city, including Scott, Wadley, Remington, Parker and Fox, Marshall's new Glass Ball Trap, \$5; three traps \$12. English chilled shot, all sizes and in any quantities. Agent for Dittmar powder. Complete outfits for hunting and camping. Best Breach-Loader ever offered in the United States for \$35. Wholesale Agent for Holabird's Shooting Suits, and Camp Lounge Company.



**Chas. F. ORVIS,**

MANUFACTURER OF  
**FINE FISHING TACKLE,**  
**MANCHESTER, VERMONT.**  
**VERY STRONG AND DURABLE ARTIFICIAL FLIES.**  
Fully Equal to any Made.

For Trout, \$1.50 per dozen. Trip Hook Flies, \$3.50 per dozen. For Bass, \$2.50 to \$4.50 per dozen. Any variety to order per sample.  
Refer to Dr. J. R. ROMEY, Keeseville, N. Y.; Com. L. A. Beardster, Little Falls, N. Y.  
SEND FOR DESCRIPTIVE CATALOGUE. MENTION "FOREST AND STREAM."



**STODDARD'S**  
**CARTRIDGE LOADING IMPLEMENT,**  
COMBINING SEVEN DIFFERENT TOOLS,  
Cap Expeller, Recapper, Loader and Tube, Greaser, Cutter, Crimper and Shell Extractor.

**NO. 10 NOW READY.**  
Performs all the operations possible in the manipulation of Paper or Metal Cartridge-Loaders.  
Length, 4 1/2 inches. Nickel Plated. Weight 10 ounces.  
All the operations are perfect, and suitable for any shell.  
AWARDED BOTH MEDAL AND DIPLOMA AT CENTENNIAL EXHIBITION.

**PRICE, \$6.**  
Circulars sent on application. Send postal order or check to

**C. J. STODDARD & CO.,**

Lock-Box 192, Washington, D. C.  
LIBERAL DISCOUNT TO THE TRADE.

**THE UNITED STATES CARTRIDGE COMPANY,**  
LOWELL, MASS.

Manufacturers of the  
**CENTRAL FIRE, SOLID HEAD,**  
**BRASS SHELL, RE-LOADING CARTRIDGE,**  
Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

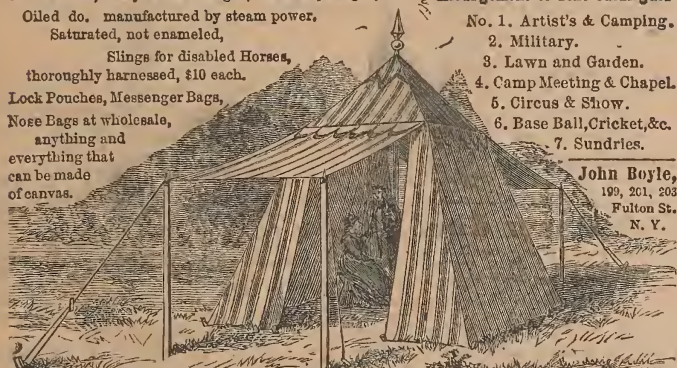
**WALLACE & SONS, Agents, N. Y. City.**

Cotton Duck, every width & weight, cut to any length,  
Oiled do. manufactured by steam power,  
Saturated, not enameled,  
Slings for disabled Horses,  
thoroughly harnessed, \$10 each.  
Lock Pouches, Messenger Bags,  
Nose Bags at wholesale,  
anything and  
everything that  
can be made  
of canvas.

**Arrangement of Tent Catalogues.**

1. Artist's & Camping.
2. Military.
3. Lawn and Garden.
4. Camp Meeting & Chapel.
5. Circus & Show.
6. Base Ball, Cricket, &c.
7. Sundries.

**John Boyle,**  
199, 201, 203  
Fulton St.  
N. Y.



**Palmetto Tents,** 10 feet square, \$20 each.  
7 1/2 " " " 7 "  
**Boyle's U. S. Tent and Mail Bag Manuf'y,**  
FULTON ST., NEW YORK.

**FOR MEERSCHAUM AND CIGARETTES.**  
DOES NOT BITE THE TONGUE.

Our Cigarettes are as fine as can be produced. Only the best French Cigarette paper is used, which is free from mineral and other injurious substances.

**TRY L'AMERIQUE,**

THE BEST CIGARETTES, AND JUST THE THING FOR  
**SUMMER SMOKING.**

Mixture of Perique and Vanity Fair. Best French Cigarette Paper only used. Sample by mail, Fifteen cents. Ask your dealer for them.

**WM. S. KIMBALL & CO., Rochester, New York.**

**Folding Pocket Mosquito Bar.**

A most ingenious device for campers, tourists and travelers. Can be used at home or abroad, and will last a lifetime. It weighs less than a pound, and no trouble to carry. Can be put up or taken down in half a minute. No camping outfit complete without it. Every one warranted. All complete, with net, \$1.50. Sent on receipt of price. Address  
**A. A. OWING,**  
Watkins, N. Y.

**Gale's Patent Tents,**

Adapted to all purposes where Lawn, Beach, Hunters' and Camp Tents are used; are eight feet high, seven feet square at bottom, will lodge four persons; can be set up or taken down and packed in five minutes, making a bundle four feet long, of twenty-five pounds weight. The pole in two parts, is joined together by a brass tube. They are wonderfully light, and yet very strong, and are the hardest and cheapest tents extant. Samples of goods at all price lists sent free, and the tent sent on receipt of price. For C. O. D. Prices from \$10 to \$15.

**GALE & CO.,**  
Boston, Mass.

**Seydel & Co's Pocket Hammock.**  
No. 1, weight only 1 1/2 lbs.; bears 1,300 lbs.; price \$4.  
A most luxurious Couch, Seat, Swing, Etc.



Circulars may be had by addressing **McCOY & CO.,**  
34r and 136 Duane Street, N. Y.

**HAMMOCKS**

FOR LAWNS AND EXCURSIONS  
Tents, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seetees, etc.  
Send for Illustrated Circular.  
**G. WEBSTER PECK,**  
Manufacturers' Agents,  
110 Chambers St., N. Y.

**M. C. WEDD,**  
Manufacturer of Decoy Ducks, Blacks and Mallards, 16 inches long; 50 cents each; nice ones.  
27 MANHATTAN ST., Rochester, N. Y.

**Sportsmen's Goods.**

**Florence Oil Stove.**  
Made of Galvanized Cast Iron.  
Will Last a Life Time.  
Especially for Sportsmen and Picnic Parties. Complete outfit consisting of Stove, Oven, Kettle and Steamers of Combined, Coffee Pot, Two Tin Plates and Oven Pans, Two Knives, New No. 0, \$4.50. and Forks, One Frying Pan, Two Pin Cups, Two Spoons, and One Camp Chest for \$12.  
*Absolutely Safe, Cannot Explode.* Also 3 sizes Cooking and Heating Stoves for family purposes. Manufactured by

**FLORENCE MACHINE COMPANY,**  
FLORENCE, MASS.  
Agents Wanted.  
Send for Circular.  
1726 4t

**POCKET BEDSTEAD.**  
TRADE MARK PATENTED.  
SIDE SLEEPER ON CAMP OR GROUND.  
CAMP-LOUNGE FOLDED.  
PUT UP IN ONE MINUTE.

This Bed, for Camp, Lawn, House and Office. Weight but 2 1/2 lbs.; is one of the greatest and most economical luxuries ever invented. Price \$2.50.  
**W. MASON, Albany, N. Y.**  
1913m

**H. WALDSTEIN**  
**OPTICIAN,**

**545 Broadway, New York,**  
Has received the highest award at the Centennial Exposition for his fine Glasses, especially Opera and Field Glasses. His display at 654 Broadway of fine  
**TELESCOPES: FIELD, MARINE and OPERA GLASSES, MICROSCOPES, SPECTACLES and EYE GLASSES, ARTIFICIAL HUMAN EYES, Etc.,**  
Is really wonderful. Illustrated catalogue mailed on receipt of postage of four cents.

ESTABLISHED 40.

**Magie Lanterns and Stereopticons.**

**E. & H. T. ANTHONY & CO.,** 691 Broadway, N. Y., opposite Metropolitan. Stereoscopes and Views; Graphoscopes, Chromos and Frames; Albums, Photographs of Celebrities, Photographic Transparencies, Colored Glass, Photographic Materials. Awarded First Premium at Vienna and Philadelphia.  
dce25

**Painting.**

**PAINTING.**

**EVERY ONE THEIR OWN PAINTER.**  
**50 Per Cent. Saved.**  
We are manufacturing a very fine Pure Ready-mixed Paint, mixed in such a manner that any ordinary stable or farm hand can make as good a job painting as a painter can with paint mixed in the old way. This is because our paint does not set quick, and thus show marks of the brush. We sell it lower than materials can be bought in the ordinary way, and pay freight in certain sized orders.  
Any gentleman wishing to paint up his buildings at small expense had better write, and have sent free our book.  
Address 260 Front street,  
**INGERSOLL PAINT WORKS.**  
1e21

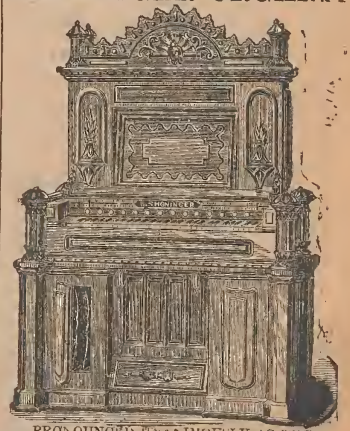
**Amusements, Etc.**

**GILMORE'S CONCERT GARDEN.**  
OPEN EVERY NIGHT IN THE WEEK WITH  
**GILMORE'S GREAT MILITARY BAND.**  
SPECIAL PROGRAMMES SUNDAY EVENINGS.  
50 cents admission. Boxes seating four, \$5.

**Zoological Garden.**  
**FAIRMOUNT PARK, PHILADELPHIA.**  
Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents.  
jan 17

**THE GREAT NEW YORK AQUARIUM,** Broadway and 86th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones, Wonderful Horned Cow Fishes and Ascidians, Twelve seals, sea lions, 15 sharks, 40 hoi fish, 8 bell-benders, and thousand of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments.  
Coney Island Aquarium now open for the summer.

**Highest Honors**  
**CENTENNIAL WORLD'S AIR, 1876:**  
**SHONINGER ORGANS.**



**PRONOUNCED UNANIMOUSLY AS THE**  
**Best Instruments.**  
Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:  
"The B. SHONINGER ORGAN CO.'S exhibit as the best Instruments at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, less liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either shrink, swell or split." **THE ONLY ORGANS AWARDED THIS RANK.**  
This Medal and Award was granted after the most severe competition of the best makers, before one of the most competent juries ever assembled.  
New styles and prices just issued, which are in accordance with our rule, the **BEST ORGANS** for the least money.  
We are prepared to appoint a few new Agents. Illustrated Catalogues mailed, postpaid, upon application to  
**B. SHONINGER ORGAN CO.,**  
97 to 123 Chestnut Street,  
NEW HAVEN, CONN.

Guns, Rifles, Etc.

**SPORTSMEN**

Will find a select assortment of

Guns, Rifles, Revolvers, Ammunition, And all goods appertaining thereto.

Special Attention is Invited to Our New SMITH'S PATENT REVOLVERS,

In four sizes of 22, 32, 38 and 41-100 cal.

This new and elegant Arm combines simplicity durability, a perfect interchange of all its parts. The most critical inspection in process of manufacture, and with its patent improvements, make it the Most Desirable Revolver in the Market.

A COMPLETE ASSORTMENT OF MAYNARD RIFLES SHOT GUNS ETC.

Send for Circular. **FOWLER & FULTON,** NO. 300 BROADWAY, N. Y. A. FOWLER, HENRY FULTON.

**Sportsman's Depot.**

(ESTABLISHED 1836.)

First premium at World's Fair at New York and Centennial Exhibition.



**JOHN KRIDER,**

N. E. Cor. Second and Walnut Sts., Phila. GUNS, RIFLES, PISTOLS.

Fishing Tackle, Rods, Reels, Lines, Hooks, Flies, Leaders, Sneeds, Artificial Bait, Fly Books, Etc., Etc.

Salmon, Bass and Trout Files Made to Order. "Kriders" Celebrated Center Enamel Split and Gined Bamboo Rods.

Birds' Eggs and Birds' Skins in Great Varieties—Taxidermy in all its branches.

Sprays' Patent Dog Biscuits mar-4 y Repairing of all kinds.



**Dennison's Targets**

From 25 to 1000 Yd. Range.

TARGET PASTERS AND Score Cards.

SOLD BY Dealers in Sporting Goods.

On receipt of TEN CENTS a 100 YARD TARGET will be sent by mail, with circular and sam. pls, by DENNISON & CO., 198 Broadway, N. Y.



Convenient and Handy for attaching to Fishing Rods, Gun Cases, and all sorts of Sportsmen's Baggage. Buy of your nearest Stationer or Newswriter, or send 10 cts. for package by mail to DENNISON & CO., 198 Broadway, N. Y.

**Sportsmen's Goods.**

**W. H. HOLABIRD,**

Manufacturer of

**Specialties in Clothing FOR SPORTSMEN, Valparaiso, Ind.**

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent, by mail, post-paid, \$8.

Holabird's New Game Bag; weighs 12 ounces. The most convenient and coolest garment ever offered to Sportsmen. Can be used in place of a coat; no room for 50 shells and 75 snipe or quail; by mail for \$2.

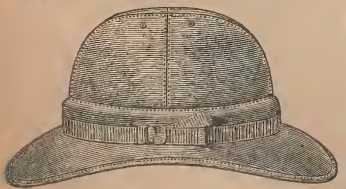
Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Russian suits made to order in the neatest and most desirable style.

Send 25 cents for my book on D-g Breaking and catalogue of goods. Money refunded if not satisfied.

**W. H. HOLABIRD, Valparaiso, Ind.**

Ask your gun dealer for Holabird's goods. Jy12 tf

**SOLA HAT.**



This Hat is made of waterproof duck, dead grass color, and in the same style as East India Hats; is the coolest and best yet offered to sportsmen.

Absolute Guarantee against Sunstroke. For sale by all dealers in sportsman's goods, or sent by mail, securely packed, postage prepaid, price \$2.

Address, **THOMSON & SON,** 801 Broadway, New York.

17 c. box 1.016. Send stamp for illustrated catalogue of sportsmen's goods. Ag2 tf

**F. Wesson's Long & Mid-range Rifles, Breech-Loading. THE BEST IN THE WORLD.**



For full Particulars, Price List, etc..

Address,

**F. WESSON,**

**WORCESTER, MASS.**

M. W. Robinson, Agent, No. 79 Chambers street, N. Y. Received Medal and Diploma at Centennial Exhibition, Philadelphia.

**W. & C. SCOTT & SONS.**



First Prize Medal and Diploma, awarded at the Centennial Exhibition, for excellence of workmanship and material in their Premier Quality and medium grades. Their New Patent-Triplex Lever Grip Action and Compensating Lump. The attention of sportsmen is requested to the above new action. Its superior strength and solidly impart greatly improved shooting powers. Hard hitting being the desideratum required, is obtained by this powerful gun. Prices of the New Triples Lever Grip, \$175, \$225 to \$400. Marked the Triples 10-bore extra. Our highest grade is as usual

marked the PREMIER QUALITY

(Extract from FOREST AND STREAM, New York, December 25, 1876. Contributed by one of the Judges of Awards of Guns at the Centennial.)

"This action (The Triples Lever Grip) combines in the highest degree strength and simplicity, and must rapidly secure the favor of all who test its merits.

**COMPENSATING LUMP.** Strongly recommended. It is invaluable, and should be ordered on every gun. Costs about \$10 extra. Choke-bore, medium or full. Our guns to be had of the principal dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.

**Paper and Metallic Shells**

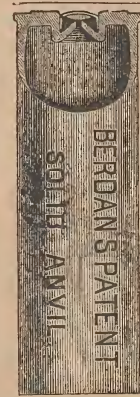
FOR

**Breech-Loading Shot Guns,**

Manufactured by the

**UNION METALLIC CARTRIDGE CO.,**

BRIDGEPORT, CONN.



THE STURTEVANT SHELLS are the easiest reloaded. Do not have to unscrew the head nor use an awl to remove the exploded caps. THIS PATENT MOVABLE ANVILS, made of steel wire, will not bend or break.

THE BERDAN PATENT SHELLS, new model, with Hobbs' patent waterproof primers, never raise fire, and are highly prized by all that have used them.

PAPER SHELLS.—By repeated experiments and great outlay for improved materials, and machinery made expressly for the purpose, we can now warrant our BROWN PAPER SHELLS equal to any imported. They are sure fire, and will not burst in the gun.

Inquire of any of the dealers in sporting materials for the U. M. C. Co.'s Shells. Not sold at retail by the manufacturers.

**"St. Louis Conical Base Paper Shell."**



Having made important improvements in our Shell, we can safely recommend them as equal, if not superior, in quality to any Paper Shell manufactured in this country or in Europe.

Among the advantages claimed for these Shells, are: A saving of 25 per cent. in the use of powder; also the great decrease in recoil. The sizes made are No. 10—2½, 2, and 3 inches; No. 12—2½, 2¼, and 2 inches. Longer and shorter sizes made to order.

Shells will be made at extra cost. They are not malleable. Sample, 100, sent by express on receipt of \$1.10 for No. 12; \$1.20 for No. 10. Factory and office, No. 2,239 De Kalb street, St. Louis, Mo.

**St. Louis Patent Shell Manufacturing Company.**

**Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.**

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

SPORTSMEN'S CLUBS AND AMATEURS.

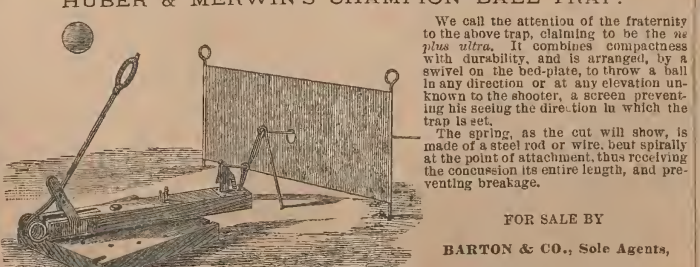
THE PATENT ROUGH BALL.—The only Ball that will break sure when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 13, 1877.

**Geo. E. Hart & Co.,**

NEWARK, N. J.

TRADE SUPPLIED.

**HUBER & MERWIN'S CHAMPION BALL TRAP.**



We call the attention of the fraternity to the above trap, claiming to be the *me plus ultra*. It combines compactness with durability, and is arranged, by a swivel on the bed-plate, to throw a ball in any direction or at any elevation unknown to the shooter, a screen preventing his seeing the direction in which the trap is set. The spring, as the cut will show, is made of a steel rod or wire, bent spirally at the point of attachment, thus receiving the concussion its entire length, and preventing breakage.

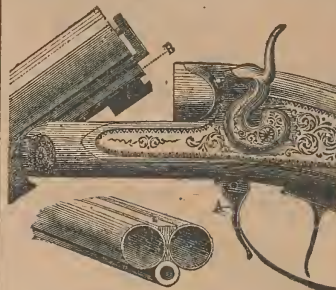
FOR SALE BY

**BARTON & CO.,** Sole Agents,

337 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP, for durability and perfection of its operation, superior to them all, and take pleasure in recommending the "Champion" to sporting clubs and my friends. (Signed) IRA A. PAINE. Aug 1 y

Guns, Rifles, Etc.



THREE BARRELED

**Breech-Loading Guns.**

(TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

Represented by W. Holberton, 192 Nassau street, New York.

SEND FOR CIRCULAR.

**W. H. BAKER,**

Sept. 30:6m Lisle, Broome Co., N. Y.

Founded July 4, 1803.



Thos. W. Sparks,

**Shot & Bar Lead**

MANUFACTURER.

Office 131 Walnut Street, Philadelphia.

**Attention, Sportsmen!**



**The Boss Loader of the World.**

Each Loader adapted to both 10 and 12-gauge metal or paper shells of any length, each shell being accurately charged and wadded complete in one operation, at the rate of 100 in fifteen to twenty minutes. Amount of charge readily adjusted. Is substantial, safe and reliable. Price \$3. Discount to trade. All orders for sample loaders must contain remittance. Manufactured only by

**CAMP & WISE,** Jy26 St Stoughton, Dane County, Wis.

**Decoys**

H. A. STEVENS, Manufacturer, P. O. box 164. Weedsport, N. Y. Aug 16 4

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year, }  
Ten Cents a Copy.

NEW YORK, THURSDAY, AUGUST 30, 1877.

Volume 9.—No. 4.  
No. 111 Fulton St., N. Y.

### FISHERS OF MEN.

Down the calm river they leisurely floated;  
There, in a nook that was shady and cool,  
They brought out their lines, and their hooks were all coated  
With bait, well adapted the fishes to fool.

Mabel was with them, and Lizzie and Laura,  
Maidens light-hearted, and merry and fair,  
Each bestowed smiles on her favorite adorer,  
Destined, perchance, to fall into her snare.

Idly they played with their lines in the river;  
Little they cared though no fish should be caught;  
Fondly each hoped that the fates would deliver  
Into her keeping the lover she sought.

Lightly they talked upon themes with which Cupid  
Had lavishly filled both their hearts and their brains,  
And laughingly said that the men were all stupid,  
The while they were artly weaving their chains.

The day passed away and the fishing was ended;  
Pleased with themselves the fair innocents looked;  
They gazed on their victims, and each comprehended  
The fish she had angled so long for was hooked.

Then back to the town the young men rowed lightly,  
Their baskets all empty—that fishing was tame—  
While on each other the maidens smiled brightly;  
The fishers of men had won at their game.

For Forest and Stream and Rod and Gun.

### The Backwoods Canvasser.

His name was Jim.

He had another name—supplementary, as it were, to this "front" name—but it came in use so rarely that even his old acquaintances had nearly forgotten it. Let it remain unknown, as Jim sometimes reads the magazines and would visit dire vengeance upon the writer should he see this truthful chronicle of his deeds. Let it not be reasoned from the redundancy of Jims in narratives of personal adventure, that this one, like the majority of them, is fictitious.

"A truer tale has ne'er been told,  
And his name was Jim, and is—"

Under the palms of Florida's southern shore, stretched beneath the waving, rustling palmettos, carrying an eagle-headed whistle, carved from the ivory tusk of an alligator, lay my hero when first I met him. I had had, as boatman and guide, old Captain Congrar, a salt from the North, who had lost his savor by living a score of years in the South. A rare specimen of the misplaced Yankee was the captain, possessing all the deft ways of the nautical Cape Coder, and the laziness and unthrift of the Florida "Cracker."

Rum did it—rum and poverty; for in this case they are not synonymous terms.

The captain was a queer nut, alternately pleasant and again strangely sulky. In one of his odd freaks of lunacy he had, left me upon the sandy shore of a secluded island, far down the coast, thirty miles from the nearest habitation. Rather, let me say, he had left my effects. I was in the mangroves, half a mile from the boat, following the trail of a wild turkey, while he, perfidious guide, was calmly depositing my goods upon the beach. A pile of camp equipage beneath my eye and a white sail far away, as I emerged from the swamp brought me up, to use the captain's favorite expression, "all stan'in." To shout was useless. The captain's back was toward me, and his face determinedly set toward his humble cabin and its adjacent grocery, ninety miles to the northward. A scrawl traced in the white sand read:

"Too much pisen for my stumik."

Alas! and had it come to this!

Rare birds and strange beasts were the objects sought by me in this nondescript land of the transition, and I had, for the preservation of their furry and feathery coverings, a large package of arsenic. Long usage had accustomed me to its presence at our frugal meals, but not so the captain. In vain I cited learned authority in favor of its use; in vain I reasoned and labored with him to the effect that, should he accidentally swallow a poisonous dose, a mouthful of mustard and water or an opportune application of the stomach pump would instantly relieve him. He saw that I was wedded to my arsenic, and had taken the method narrated to rid himself of the "pisen" and myself at once.

Night was not far distant, and it was necessary to prepare for it, leaving to the morrow the question of escape. I found,

Selected.

upon hasty inspection, that my guide had left me all my own, with exception of a rifle and cartridges, sufficient to compensate him for his wages in case of my defection. There were provisions enough for a fortnight, and game was plentiful in the jungle behind the beach in shape of birds, so that on the score of subsistence I knew no fear, and proceeded to pitch my little tent serenely beneath a glossy-leaved India rubber. My guide, with a thoughtful kindness that must have hurt him, had left the cold remains of the morning's meal—venison, fish and flapjacks—and, after a cup of hot coffee, I threw some dry wood on the fire and went to sleep. I had been too long in Florida woods to trouble my brain with visions of wild prowlers of the night that never appear, and snakes and scorpions that never bite, and my slumber was sound and sweet.

The duties of the opening day, simple and primitive, occupied but little of the morning, and ere the sun had dried a drop of dew from the leaves, I was beyond the jungle fringing the snowy beach hunting the sombre oak hummock for my turkeys of the day before. The excitement attending the working up of the trail, the surprise, the capture, and the subsequent shooting of the stragglers, so occupied me that it was well toward noon when I turned toward my deserted camp. Staggering beneath my load of noble birds, breaking through the spider-legged mangroves, disturbing countless hundreds of quaint fiddler crabs and enormous spiders; brushing aside the impeding vines, I burst upon my camp, no longer deserted, for there lay—*Jim!*

It was our first meeting.

A little sloop-rigged boat was drawn up on the sand. I manifested no surprise. He looked not up. Thrusting the half finished whistle into his pocket, he arose and said, looking out upon the water, "Want to see me catch that 'gator?'" I threw down my turkeys and looked out over the water. Just outside the break of the surf, on the beach, was the head of an alligator—listless, seemingly lifeless, asleep, drifting on the glassy water with half closed eyes. To inexperienced eyes that head would seem a black knot of wood borne by the waves; to my eyes it appeared the head of a nine-foot alligator. Without awaiting reply, Jim waded in—deeper and deeper; the water reached his waist and dashed lazily against his breast as he neared the sleeping *saurian*. The heat of a semi-tropical sun had lulled his senses to repose, else Jim could not have approached so closely unseen and unnoticed. Cautiously dipping his hand in the water, and bending over so that his face was squarely reflected in the watery mirror, Jim suddenly closed upon the thin, serrated tail, and then braced himself quickly back to meet the expected shock. It came. Concentrating his dormant energies in a single rush, the 'gator leaped forward with a terrific splashing of his paws; but he strove in vain against the strength of my hero, for, though he could drag him, he could not throw him, as he hung to the tail with both hands. The gleam of quiet satisfaction that shot from his eyes as his hand clasped the 'gator's tail was gone, and in his face there was a fixed determination born of the struggle—the first recorded of the strength of man pitted against that of alligator. But, as might have been expected, the contest could not last long. I do not think that Jim meant to capture the reptile, only to impress me favorably with his prowess by an act of bravado. Finding he could not escape, the alligator paused a few seconds, quivering with rage, his sullen eye emitting lurid flame, every scale on his mailed back rigid with anger. Only a moment of time—a second or two, perhaps, when, with a muttered, guttural bellow, like that of a half-strangled bull, he threw himself out of the water, swinging around till his horny snout nearly touched his tail and the horrid jaws clashed in Jim's face.

That spectacle will last while memory holds. The black bulk, but a few minutes since inert and apparently lifeless, poised in air, lithe and terribly vigorous, the water dripping from its mailed form and streaming from its armed jaws.

It is not strange that Jim loosed his hold, even if the sudden jerk had not forced him, with that cavernous mouth, white with bared and glistening fangs, so near his face. He fell backward into the water, and the alligator, instead of devouring him, as it had good cause to do, darted beneath him with the rapidity of light. A few rods away the black head reappeared, and the evil eye glittering coldly beneath the projecting dome of the skull, watched its late antagonist as he floundered ashore. A muttered curse or two on Jim's part

and a whirlpool of foam on the alligator's, as a ball from my rifle dashed the light from his eyes forever, ended the comedy that had threatened to be a tragedy. Wringing the water from his shirt and ragged breeches, Jim spread himself and them upon the sand to dry.

It transpired in the course of the day, that the captain had met Jim, told him of my circumstances, and had hinted in a moment of remorse, that it would be as well for me if I were off the island, as a storm was threatening and the rising water would suddenly cover my camping place—too rapidly for escape.

This actually happened a few days later, but we were safely clear of the island then.

Jim was garrulous, and delighted to relate his many adventures, mainly with panther and alligator. "Why, this wan't nothing to what I did once up in the Banana River, as any body on the river can tell you. You see there's a big 'gator hole up there, where's jest the biggest 'gator that ever you did see. Old Cap'n Congrar was with me and stumped me to dive down and yank him out. Well, I wan't to be beat on that game, and I jest stripped and went for him. There was jest the tip of his tail a-stickin' out, and I knew from its clumsy look it belonged to a big one and I should have a tussle. Well, you see, I got hold and hauled and braced my feet against the bank, but I couldn't start him. Then I had to come up to breathe, as the water was more'n fifteen feet deep, and then down I went again and took another pull at it. I swear! I believe that tail was rooted in the bank, and I had tried three times and was jest givin' it up when the darned thing began to move. It didn't sort of yield gradually like, but seemed to come out of its own accord, and as though it wan't in any hurry about it either. Well, I found 'twa'n't no use pulling, and I jest watched it backin' out till it got to the fore-shoulders, and much as fifteen feet was in sight and more a-comin', and the shoulders was broad as a bear's, and then I scooted. It wan't none too quick, I tell you; and that thar 'gator he straked her for the boat, and took a piece out of the gunnel of one side jest as I was climbin' in t'other. The cap'n he was so scart his hair stood right up, and he didn't have sense enough to paddl ashore, but sat there saying, 'We're gone coons, sartin! we're gone coons!' Well, the 'gator left us and put for his hole, with the piece of our boat in his mouth, and we could hear him a-chawin' of it and a-growlin' over it. He was a twenty-footer, sure as preachin'."

This account was substantially verified at a later date by an old inhabitant of the coast, who added that Jim was not afraid of the devil himself.

A few weeks later we were at an inlet on the coast, fishing for sea bass, which were unusually plentiful, rippling the water in their eagerness to take our hooks. I was engaged in catching them, throwing my line into the surf and then running up the beach with the powerful fish, while Jim had gone to the hail of the captain of a small schooner anchored inside the bar. Soon he appeared, and running his eye over the long row of silver-sided fish, said I had caught enough and must go with him to aid in recovering the captain's anchor. Of course I obeyed, and we moored our boat as near as possible above the place where the anchor was lost. The fast ebbing tide ran rapidly by us, dashing against our boat and singing against our moorings. On either side a multitude of sharks disturbed the water, their triangular fins projecting above the surface and streaking it with foam. Jim attached a line to his naked body, telling me to haul in rapidly when signaled, and dove. Anxiously we waited for his reappearance, and when he came up safely and reported the anchor caught beneath a mangrove root, we urged him not to go down again; but, with a glance at the increasing number of fins, he gave me directions about the line and to keep up a continual splashing, and then disappeared. Up again; a rest of a minute, clinging to the side of the boat, and again beneath the angry waters. The fourth time he was successful, and as I helped him into the boat, exhausted and breathless, he whispered faintly, "Made that V easy, didn't I?"

This is but one of his mad pranks.

I have seen him snatch a bird from the jaws of an alligator and then add a rap over the nose that greatly hastened the departure of the astonished reptile, thus bearded in his own den. A similar instance occurred while he was acting as guide to a staid college professor the next year, as the professor foresaid delights to narrate. So much instruction in wood lore, the

haunts of bird and beast, the methods employed in their capture did I obtain from Jim that it was with deep regret that I parted from him, and even overstayed my allotted time far into early summer. We parted, with the naive confession from him that I was "the best Yankee he ever ran across."

The New Year of another season saw my boat scudding across the wide northern head of the immense Indian lagoon, headed for the veritable grocery, near which lived the year before, the captain and Jim. Verily! leaning over the self-same counter at which I had left him, in the same state of semi-imbriation in which he had bade me farewell, ragged, shoeless and hatless, was Jim. His welcome was bolsterous, as in me he saw the source of former emolument and perhaps of future gain, and he at once gave me the freedom of Salt Point, and added in a confidential tone that his high office of constable would secure for me unlimited and gratuitous ministrations from the denizens of Salt Point. Then, with the air of one who has conferred inestimable favors, he walked unsteadily down the shabby wharf to my boat, and instituted a systematic search of my luggage, against which I knew it would be useless to remonstrate. The several articles of value that he laid aside I left, relying upon a more favorable season for their restoration.

At last a smile of peculiar satisfaction overspread his features. He held in his hand some loose copies of the FOREST AND STREAM, and as he ran his eye adown their columns and noted the attractive headings of the different articles, his soul warmed within him with a fraternal feeling for the paper that chronicled deeds congenial to his nature.

"This paper," said he, "'is jes' the paper I want. I'll take what few you've got here, an' when you get home you can sen' me the rest."

I acquiesced, of course. "Now," continued he, "I'll jes' go up an' indoocce the people of Salt Pint to s'cribe for this 'ere paper, an' if you'll for'ard the s'criptions to the boss of 'e establishment I'll give you half."

At this I ventured to remonstrate. Surely the people of Salt Point would not care for the paper, living, as they did, so near starvation point, with no time or inclination for reading. Half of them could not read and none of them could afford it.

"Look a-here, I guess I can take care of my own business. Them folks up there are my friend's an' I'll do as I say."

Having thus delivered himself, he walked up the wharf with the papers under his arm, refreshed himself and a small Lottle at the grocery, unhitched a scrubby marsh pony from a denuded palmetto, mounted, and was about to dash away when I restrained him. I appealed to him in vain; he would not listen. The whisky had produced in him that dogged indifference that usually preceded an outbreak, and he only muttered, gazing ahead with stony eyes that seemed to see nothing but food for mischief:

"You see, I'm constable; got my commission from the Guv'ner, an' if I can't do as I durn please, who can? There's old Feester—dog gone his skin!—owes me seven dollars. Le' go!" as I laid a hand on the bridle rein. "Le' go!" and with a dash of spurs into his wiry pony and a brandishing of gun and papers he dashed down the trail toward a weazened old man. I caught up with him in time to hear: "It's jes' that or 'th' jug. I'll give five minutes to say. Third time's death!"

I was alarmed. It was evident that Jim was crazy drunk, or fast getting so, and I interceded for the aged cracker. But this individual tipped me a wink, assured me that it was "only one of Jim's cuttin' ups," and then, turning to him, begged him for his family's sake to have mercy.

"No! it's pay up now, or march; an' if ye don't keep up with the pony I'll plug ye with a bullet. But I'll tell you what I'll do—s'cribe for this paper an' I'll let ye off this time.

"What kin' of a paper is it?"  
 "Never ye mind; jes' s'cribe or travel."  
 "Well, how much mought it be?"  
 "Thirty-five dollars, an' dog gone cheap for sure!"  
 "That ther is cheap, I allow, an' ye might put me down."  
 "That's all I wants!" shouted Jim. "My frien' here collect, an' it'll go hard if ye don't pry up." And he rushed away, leaving me petrified with astonishment and overwhelmed with the responsibility of my office as collector. His "Whoop-la!" grew fainter and fainter, and the jingle of his spurs were no longer heard.

"That ther feller is a tougher, an' if he'd let lieker alone he might be as 'spectable's I am; but he won't, nohow. He's jest a-goin' to raise dust, an' I must go down an' look out for the ole 'oman an' chil'n. Have ye got a drop about ye, cap'n?"

We reached the "settlement" a long time behind Jim, and discovered consternation dire in every house. Like an avalanche he had descended upon them, and had proclaimed with threatenings of imprisonment and even death, that they must take his paper. Could the editor of that valued paper have seen the enthusiasm manifested both by canvasser and subscribers, doubtless he would have thought the printers' millenium had arrived. It is needless to add that every man, woman and child was a subscriber. His success only stimulated him to further effort, and just as we reached him he was entering the pine woods trail to the steamer at Salt Lake. He drew up his panting pony, quivering and foam-splashed, shook the roll of soiled papers, that had not yet left his hand, at me threateningly, and cautioned me to visit every family in

Salt Point and collect the money—for he had got their names. I afterward learned that he reached the steamer or the shore of the lake, waded out to the boat and presented himself, draggled and forlorn, at the door of the ladies' cabin. When interrogated as to his business there, he muttered vaguely, "SPECIAL CORRESPONDENT FOREST AND STREAM," and fell asleep.

The people of Salt Point did not regard me favorably, and I judged it not expedient to collect their subscriptions, but put the greatest imaginable distance between myself and them in the shortest possible time. FRED BEVERLY.

For Forest and Stream and Rod and Gun.

#### RED SNAPPER FISHING IN THE GULF OF MEXICO.

IN this part of the country the fish known as red snappers are decidedly a favorite. In the markets of New Orleans, Mobile, Galveston, Pensacola and Savannah they are abundant; and from these points throughout the year, and especially in the winter, they are shipped upon ice to many towns and cities far to the north. There are but few varieties which are bought in preference to them. They are much sought after by the fishermen in the Gulf of Mexico, and often constitute nearly the entire cargo which the smacks bring into port. They are a gentle fish, and a diver may go down into the well of the vessel, where they are, without creating the slightest commotion among them. Indeed, they will swim leisurely all around him, come up to inspect his face, and allow themselves to be moved gently aside with the hand. Should they be hungry, it were well if the diver kept a sharp lookout to see that they did not take a nip at his nose. They are measurably hardy, and when not badly bruised or wounded, when put into the well, and the well be not too much crowded, they will all reach port as lively and fresh as though in the open sea.

It is doubtful if one in ten of your readers knows how these beautiful and delicious fish are captured. There are doubtless thousands, even, who have no conception of the construction of a smack, or how fishing for "snappers" is carried on, and to whom a brief description of the matter would be of interest.

Cruising along the coast and among the islands of the Gulf of Mexico, with a pleasure party of a dozen, two of us temporarily transferred ourselves, with a change or two of linen, from our little schooner to a large and neat two-masted fishing vessel, which, by agreement made at Mobile, had overhauled us at Sand Island about the 10th of July. We sailed for Pensacola harbor, which we reached that night about ten o'clock, and anchored off Fort Pickens. The next two days were industriously spent in seining for bait, but with such poor success that at the end of that time only about one-fifth of a barrel had been taken and salted down. The schools of fish, and especially the lady-fish, which were those desired, seemed to shun the shore and keep out in the deep water, so that a cast was almost impossible. On the third day, however, the captain ordered the anchor up and sails set. This being done we passed out of the harbor and headed to the southeast, from which sailors and passengers inferred that we were off for the banks, notwithstanding our small supply of bait. Our captain was a reticent fellow—consulted no one, kept his own counsel, and you either had to guess at what he intended doing, or wait for your knowledge of his movements until he acted. But he was evidently a good sailor, thoroughly posted in all the details of his business, and his passengers had abundant evidence of his kindness and excellence as a gentleman.

It was the intention, as we learned afterward, to take us to banks about fifty miles to the east of Pensacola, and some twenty miles off-shore—a spot known only to a few fishermen; but in making the run we fell in with two other fishermen, returning with cargoes from banks nearer at hand. They had gone out our captain the day before us, and had filled up so readily that our captain was induced to try the banks upon which they had fished. So turning his course southward, when some twenty miles east of Pensacola we sailed on till the tall pines upon the mainland fell beneath the waves behind us, when soundings were ordered. A hook baited with a piece of fish being attached to the line, about two or three feet above the lead, the lead is sent whizzing ahead of the vessel, and as the nine-pound piece of metal settles to the bottom, the man sings out, "Fourteen fathoms, seventeen, fifteen, sixteen," and so on, showing the ridges and uneven bottom sought, until the call "Eighteen fathoms large," is sung out when the vessel is luffed up, allowed to drift, and the lead carefully moved about until the banks are passed over—and no bite. We put about and ran across them in another place, and still again and again, until uneasiness began to depict itself on the countenances of the two passengers, when at last the captain ordered soap upon the lead. This brings up sand and red coral. "They ought to be here," says the captain. Another turn, and while the man with the lead is gently raising and letting it fall in eighteen fathoms of water, he gives a sudden jerk, looks up and cries out sharply, "Bite!" But he did not hook his fish. Another jerk at his hook, and he sings out, "Porgie." How he knew the nibble of a certain kind of fish, 108 feet below the surface, I am unable to tell; and I am skeptical on that point to this hour. But over go the lines of two of the crew, and as their four-pound sinkers carry their hooks down among the coral, each one quickly calls, "Bite," and one begins hauling

in, hand over hand, and soon has a fine red snapper," weighing about twenty pounds, struggling upon deck. In a moment he is pierced in the side, two or three scales below the gills, with a hollow instrument, to allow the escape of the large quantity of air he sucks in as he comes up. He is then plunged into the well, as the other sailor brings up two red snappers, one on each hook, which he soon disposes of in the same manner. The buoy is thrown overboard to mark the spot, and as soon as it can be done the job is down, the anchor east and sails furled, preparatory to work. The deck is cleared, all implements brought out, and every man furnished with a line. The sun was about an hour high when the work began, and from that time until nearly dark every one of the crew, including the cook, with the two passengers, seven in all, were busy hauling up the fish from the depths. There was a continual whistling as the wind escaped from the bloated fish, and a splash every moment or so, as they were tumbled into the well. At night I retired nearly exhausted, my hands all burning from the friction of the line, in spite of heavy "half handers," and thick flannel stalls on the fingers most exposed. Many of our catch were porgies, which would have been a nuisance, but for the fact that they came into good play as bait. The porgies were voracious, and with their smaller mouth, sharp teeth and strong jaws robbed our hooks continually, unless they got the credit due to a villainous little fish called "leather jacket." Of this species we caught a number, but being fit for nothing they were killed and thrown overboard. The next morning we renewed the engagement at six o'clock, and succeeded finely, until sharks came upon the scene and broke several hooks and lines. The captain at once baited his mammoth hook made of five-eighths-inch iron (with a ten-pound red snapper), and attaching it to an inch rope, with about four feet of heavy chain, for contact with the shark's teeth, cast it overboard, and soon had a bite. But the first trial was futile, the hook being dull and clumsily made did not take hold. The next effort was more successful. In less than ten minutes the slack-rope began to slide over the railing of the vessel. The writer, being nearest, gave the rope a hard pull, and fastened the hook firmly. The crew rallied, and for a time things were lively. The captain rushed down into the cabin, and brought up his breech-loader, while the rest worried with a monster shark. After a while he was brought near, and three large balls were put into his head, which so far quieted him as to allow the hoisting apparatus to be fastened into his jaws, when he was hauled up alongside, the liver taken out, the head severed, and the body allowed to drop back into the sea. The liver, after we had taken off quite a quantity of that part where it was attached to the body, filled a half barrel, which had contained a hundred pounds of mess beef, besides the brine and salt, from which we estimated it to weigh nearly 125 pounds. The liver was between six and seven feet long. The shark was estimated to be fifteen to twenty feet in length, and to weigh about 800 pounds. The jaw was given to the writer, and on returning home through Pensacola and Mobile it was a subject of great curiosity in those cities, where such things ought to be common; and he had to sack it up to prevent being made a martyr of by the gathering crowds.

The next shark broke our big hook. Then we tried the grappling hooks, and brought one close enough to put a shot into his head and bring from him a stream of blood; but there being no beards on the hooks the fellow got off. The fifth bite resulted in our hauling up another monster, which broke the hook and ended the excitement of shark fishing, besides compelling us to weigh anchor and move to another part of the banks, where we drifted slowly about till near noon, when it was thought that the well was full enough for the hot weather, so we coiled up our lines and sat down under an awning to rest and cool off. We had between 300 and 400 red snappers in the well. This, of course, did not include those gulleeted, hurt in the gills, or otherwise wounded, nor the numerous other fish which were not considered fit for the market, such as porgies, leather jackets, snickers and the like. Three splendid groupers were caught, four spotted hines, and one seamp; but all of these, except the first, died in the well during the night. We also caught some large lings, but they were too wild for the well, and were out up and salted down. Leaving the banks at two o'clock, we sailed away for Pensacola, and at dark, as the great light in the tall tower on the mainland was winking at us across the bay, cast anchor off Fort Pickens. The next morning the vessel ran up to the town, dipped and seined the fish out of the well, tied them in bunches with strips of a species of flag, obtained on one of the islands off the Florida coast, and had them in big boxes, in ice, on a steamer, and off for New Orleans almost before one of them was through flopping. Here my friends and myself bade the captain and crew of the Frances E. good-bye, and returned to our own little schooner, which we found snugly anchored near the wharf awaiting us.

The fishermen who follow fishing for a livelihood are self-fish. At Mobile we found them reticent and chary of information about the snapper banks. They looked upon us with suspicion whenever we began to talk to them upon the subject, and when we mentioned going out with them they seemed to fear we were spies who wanted to ferret out their bonanzas. The banks become exhausted sometimes, and it is quite an item to make a new discovery. On new banks the fish bite so ravenously, and appear so hungry, that they soon rise to the top where they take the hook, making the capturing of them an easy matter, and enabling the crew to fill up in short order. In winter they bite much more freely than in

summer, and nearly always rise to the top, besides not being so choice in their food. It is hard work and consumes time to pull in two large snappers from a depth of eight to thirty fathoms. Where the fish are taken near the top they do not suck in so much wind, and are not so apt to die. A fishing crew consists of five men for summer and six for winter. After reaching good banks, they will often fill the well of their vessel with 1,000 to 2,000 fish in six or eight hours. One can imagine how active and expert they must be to accomplish this with hook and line. I have spoken of the diver. He goes down into the well, and passes under that part which is decked over, to see if there are any dead fish, and if so, to bring them out. Those near the mouth of the well can be seen from deck, and brought up with a hook fastened upon the end of a pole. The wells of course vary in capacity, according to the size of the vessel, and have from 250 to 300, and perhaps 400 openings to the sea, say two inches in diameter. If the sea is rough, the change of water is constant; but if it be calm, and the vessel cannot deliver at once, it sails about till the hour for discharging its cargo arrives, or until a rough sea comes on. Otherwise, if the well were full, the fish would die. The fishermen do not believe in sick fish, and rarely, if ever, deliver any that have died in the water. When they show signs of exhaustion, such as coming to the top and "spitting water," they are hooked out and pitched overboard.

It may not be amiss to mention that the liver of the shark is saved for its oil. Its liver is nearly all oil, and will try itself out in the sun in real warm weather. Before noon the next day, after catching the one spoken of, the captain had dipped over ten gallons of oil from the liver, which he put into the half barrel, and the indications were that he would get as much more. While at Mobile a smack lying alongside of us had just come in from a cruise after sharks for their oil, but its crew had had poor success. They ought to have been out with us, with a little stronger tackle, and they might have filled up.

B. H. P.

#### For Forest and Stream and Rod and Gun. MY FIRST COON HUNT.

I MAY say, by way of introduction, that I am just over from England, where I have had the pleasure of participating in all the sports fashionable in that country, having hunted the fox, hare and otter, and shot every species of winged game, from the towering pheasant to the erratic flying snipe. My first experience of that most exciting chase, a coon hunt, occurred last fall while I was upon the Illinois River after ducks.

We had gone into camp during the afternoon about one hundred and eighty miles up the river, and had everything fixed in proper order before sundown, and thus had a chance for a shot at the ducks then making their evening flight into the lake about two miles from camp. Three of us went to the lake where we had splendid sport, and returned to camp after dark heavily laden with ducks. After cleaning my gun, which I always do the first thing, and faring sumptuously off the results of our short hunt, I was making myself comfortable, blowing a cloud from a short pipe, with back against a log, my feet to the fire, when the stillness was broken by a couple of dogs giving tongue a short distance away. This started two dogs which were in camp with us at full speed in the direction of the excitement. On making inquiry as to the probable cause of the row, I was informed that Jack Short, a noted coon hunter of the district, was camped about a mile down the river, and that no doubt his dogs had treed a coon. We were quickly assured that something was on foot, as we soon heard two shots fired in rapid succession. Three of us shouldered our guns and started off in the direction of the shots, and just came up to the tree, around which the dogs were baying, as Jack dropped a fine coon out of the top branches. On being told that an Englishman wished to see a coon hunt, Jack was quite willing to oblige the stranger, although he had not intended hunting that night. Jack Short had two dogs; one Growler, an old coon dog, and the other a young one just learning the business. And we had two; one a foxhound, and the other a cross between a mastiff and a hound, but Growler was the only one worth anything except for making a noise.

On being ordered by Jack, old Growler broke away into the thicket; the others stopped with us. After walking some distance without hearing a sound from Growler, Jack remarked: "We might as well sit down and rest, as we would hear nothing from the dog until he got on the trail of a coon, and that we might now be traveling in the wrong direction." We hadn't long to wait, for soon after sitting down we had notice from Growler that a coon was on foot. At the first sound the three dogs with us dashed off to join in the fun. Growler seemed to be about half a mile east of us, and when the young dogs joined him the woods fairly echoed with the music, the deep tone of the mastiff making not an unimportant addition to the harmony. We now started off at a run after the dogs. After running a short time the chase turned towards the lake, and Jack expressed a fear that our chance of getting the coon was a forlorn one; but the dogs were still running, so we kept on. Jack suddenly stopped, and after listening awhile remarked, "They have treed him;" and sure enough they had driven him into an old hollow stump of a tree standing near the edge of the lake in about six inches of water. When we got up Jack asked Growler, "Is he there, old fellow?" The old dog sniffed round the trunk, and then threw back his head and gave a long howl; this settled the ques-

tion in Jack's mind, as he said he never knew Growler to make a mistake. Yes, the coon was treed; but how to get him out of his stronghold, was the question. The trunk was about twenty feet high without any branches, so we could not climb it; and we had no axe with us to cut it down. Everything of a combustible nature was either thoroughly wet or too damp to burn, and as fire seemed to be our only means of dislodging him, we all, except Jack—who stopped with the dog—started for dry land. In about a quarter of an hour we had collected sufficient dry material for our fire, which we soon started; and, as the wind was blowing pretty strong, we soon had the trunk changed into a miniature blast furnace. My hopes of the coon being there were fast falling, for as the flames kept rising higher and higher, I had no idea that any animal could stand for an instant the heat and smoke that were driving up through the hollow stump. Growler was, however, correct, as in a short time out jumped the coon and sat on the top of the stump on his hams just like a bear, and looked disconsolately round on his pursuers. There was an immediate cry for me to shoot him, but shooting was the last thing I thought of doing, so I suggested we should knock him off and let the dogs kill him. This seemed to meet their views; but, as none of us were base-ballists, it was some time before a lucky shot dislodged the coon, and down he came among the dogs, who had been anxiously watching our operations. Now began the fun, the dogs and coon rolled and tumbled round in the water, while we jumped and shouted on the bank. It was the only thing I ever saw that equalled the excitement of being at the death of an otter, when the dogs are allowed to do their own killing and are not assisted by the men who spear the animal and call that sport. The coon was soon dead, so we made our way to dry land and started old Growler off again. We kept up the hunt until after four o'clock, when the moon went down and left us in darkness. We captured three more coons, but these we had to shoot, which did not afford any sport in comparison to the first death. After the excitement of the hunt was over, I think I never was more tired and sleepy. We arrived at camp all right and found a good fire burning, so I dried my clothes and laid down to sleep, too tired to dream of my first coon hunt.

J. J. L.

## Fish Culture.

### CALIFORNIA SALMON.

TOLEDO, O., Aug. 28, 1877.

EDITOR FOREST AND STREAM:

I see in No. 25 of the last volume of your paper an account of the taking of a California salmon (*Salmo gairdneri*) in Lake Ontario, under the signature of Sam. Wilmot, in which he claims "the credit of heralding to yourself and your readers the capture of the first Californian on this side of the Pacific slope." If Mr. Wilmot will refer to page 29 of the Ohio Fish Commissioners Report for 1876-77, he will find the following, in my report to them, dated January 13th, 1877: "In the fall of 1874 the Michigan Fish Commissioners planted some young California salmon in the River Raisin, and in the fall of 1876 (Oct. 1st) Messrs. Davis Brothers, of Toledo, caught at Cedar Point, Maumee Bay, a salmon of that species thirteen and a half inches long, a healthy fish, perfect in color and flavor." I also, in November last, communicated this fact to the Michigan Fish Commissioners, which was fully noted in the able report of Mr. George H. Jerome, Superintendent of the Hatching in that State, for 1876-77. In the spring of 1876 I placed in the rapids of the Maumee River, twelve miles above Toledo, over a thousand young California salmon, and, in May this year, a number of them over five inches long were taken with a hook at that place. I ate the salmon taken by Messrs. Davis Brothers at Cedar Point, and am not mistaken in the fish. I made a pen sketch of it, and sent it to Prof. Baird, at Washington, who pronounced it a genuine California salmon.

I write this, not that I think there is any particular merit in heralding to you or your readers the capture of the first California salmon taken this side of the Pacific slope, but merely to vindicate the truth of history. Very truly,

EMERY D. POTTER.

[A California salmon was also taken from the rapids of St. Clair River, Michigan, last fall, being probably the result of spawn deposited in Black River, Michigan, in the fall of 1874. Salmon have also been caught in the Great Nemaha River in Nebraska, as before noticed in these columns.—Ed.]

MASSACHUSETTS.—The last work of the Fish Commissioners was the shipment of four cases of shad fry to Smith's Ferry, where they were placed in the Connecticut. There have been hatched at the Smith Hadley Falls Hatching House, the past season, about four and one-half millions of shad fry.

NEW JERSEY.—Twenty thousand salmon fry, hatched at the Thompson establishment, New Hope, Buck's Co., have been during the last year distributed in the waters of New Jersey, including the Delaware River.

TENNESSEE.—Prof. A. W. Brayton, of Chicago, D. S. Jordan, of Indianapolis, and other gentlemen connected with the United States Fish Commission, are making a tour of inspection through Tennessee, Georgia, and Alabama. This work is preparatory to the intended stocking of suitable waters with shad.

—Seth Green writes to the *Rochester Express* that he does not believe that fish sleep.

## Natural History.

### NOTES ON THE NATURAL HISTORY OF SOUTH WESTERN TEXAS.

BY DR. BENJAMIN F. POPE, U. S. ARMY.

FIRST: Is there a carp indigenous to American waters? Unless I am misinformed the carp has not yet been discovered in American waters, except as placed there by pisciculturists and by migration from their original points of deposit.

Perhaps it may be of interest to your readers to know that two months ago some fish were brought to this port by a strolling Mexican which, if they do not prove to be the veritable *Cyprinus carpio*, are certainly marvellously like unto it. Unfortunately, the fishes were both scraped and cleaned before being presented for sale, but there was enough of the specimens left for me to give a fairly accurate description of their distinctive features.

They were rather broad, flat bodied, and averaged thirty-two inches in length and when fresh must have weighed from eighteen to twenty-two pounds. There was a single, long, soft rayed dorsal fin, reaching from the middle of the back to the tail, which was forked; the ventral fins, also soft rayed, were placed behind the pectorals. The scales, although removed by scraping, I judge to have been very large from the size of their matrices, and they were arranged in twelve longitudinal rows between the dorsum and ventrum. For so large a fish the head was remarkably small and compressed, its nostrils prominent, mouth diminutive and placed well underneath; the lips were fleshy and nearly three quarters of an inch broad; there were no teeth on the jaws, but the pharynx was well armed with them; whether there were any barbels I do not know, as they might have been removed as were the scales.

I can give neither their color nor skin markings for reasons already stated. The flesh was pink and tolerably firm, free from bones and of a muddy flavor.

The fishes were said to have been taken in what is known as Toyah Lake, a body of soft, still and rather muddy water—a pond we would call it in the north—which is laid down on Major Moore's map of explorations in South-western Texas (1869) as being in about latitude 31 deg., 20 min., longitude 103 deg., 50 min., not over thirty-one miles south of the Pecos River, with which it was probably connected at some remote period of the Geologic history. Its distance from Fort Stockton cannot be over fifty miles north-west.

Last September, Captain N., of the 10th U. S. Cavalry, and myself, with his command, when returning from a scout to the upper waters of the Pecos River and the Guadalupe Mountains, attempted to reach this pond by going east from a point on the river which was about forty miles above "Horseshoe Crossing."

We failed to strike it, however, and were obliged to put back to the river, because our animals had been thirty-six hours without water. During the coming autumn we hope to visit this locality, which until very recently has been almost unknown to white men. I shall then make every endeavor to secure specimens of the fish for a more accurate examination and for preservation. I feel quite confident that it will prove to be an indigenous variety of the *Carpus cyprinus*, and that a new fact in regard to the distribution of the species will be established.

Second: The Vinegrone.

There is a peculiar insect found near the Fort, which, if it has not already come under observation, cannot fail in being of interest. Nowhere do I remember to have met a description of this member of the *Arachnidæ* family, though it may be my own fault, as my reading has not tended in this direction, and there are no books on the subject now at my command.

Among our native Mexican population who seem particularly to dread its appearance, it is known as the "vinegrone," a contraction, doubtless, of the words *vinagre-grande*, or big vinegar. The name is a descriptive one, and arises from the insect's habit of ejecting a pungent, irritating secretion, which has the odor and chemical reaction of vinegar or acetic acid; and for this reason, if for no other, I think the name a good one.

In general appearance, the vinegrone much resembles a large scorpion, though evidently not belonging to the same family. From the head to the commencement of the tail, the adult specimen measures fully two inches in length, and is about three-quarters of an inch broad. Its color is reddish brown and grayish white between the articulations. The thorax and head are amalgamated, while the thorax and abdomen are separated by flexible tissue which is so constructed as to give the insect somewhat of a waspish appearance. Its legs are six in number, with thoracic attachments; they have each five articulations, differing in length, and are covered with bristles or hairs; the first articulations form the anterior covering of the thorax. The trunk and head are protected by a single dense, black dorsal plate; the abdomen has sixteen distinct dorsal and ventral laminae or plates, which overlap; they would form continuous rings, were it not that they are curiously separated laterally by elastic tissue, in which the open mouths of the respiratory ducts may be seen. This division of the abdominal rings affords considerable flexibility and gives the insect the appearance of bearing about him an

old-fashioned bellows. When he is full the bellows are distended and the plates are widely separated; when fasting, it is collapsed and the laminae approximate.

From the terminal, dorsal and ventral plates is given off a series of rings, which, after the third one, are fused into a stiff spike or tail, that is usually three-fifths or the length of the entire body, and covered with short bristles like the legs. So far as I can ascertain, this is not a sting, nor does it seem to be the duct through which the secretion is ejected. It appears to be used principally as a posterior feeler, and sometimes as an aid to locomotion, as in the tail of the kangaroo. In several instances I have noticed that it was used in the recognition of one of its own species—by a caressing motion in which the other seemed to take some delight. I have also seen them crossed, as are the foils of a fencer, before their combats, which are particularly fierce at times.

From the head are given off two large and powerful brachials, each having four articulations. They much resemble the arms of a scorpion, and terminate in sharply curved lobster-like pincers. For purposes of prehension, nothing could be better devised, and the threatening manner in which they are opened and stretched out when the insect is enraged or is seeking for its prey, almost makes one shudder. But the brachia are not its only means of offense. Beneath the frontal plate are seen two long incurved fangs, covered with red hairs at their bases and blackened at their tips. Connected with these are two sacks, that, by pressure, exude drops of greenish liquid over the fangs, and in them undoubtedly resides the true venom of the insect.

Behind the arms arise a pair of long antennae, or feelers, that have five articulations, each. On the frontal plate, near its anterior extremity, are two small white eyes, placed close together, and each about the size of a pin's head. Though immovable, as are the eyes of all insects, they are apparently of good service, as they look directly forward and upward.

The habitat of the vinegrone embraces quite an extent of country bordering on the 32<sup>d</sup> parallel of latitude. I cannot give its precise limits, but it seems to be frequently met all over southwestern Texas, and the region of the Rio Grande. I have not yet sufficiently observed its habits to be able to give a life history of the insect. I know, however, that it is a ground-liver and a night-walker; it haunts old houses, is found under rocks, burrows in adobe walls and infests the mud-daubed roofs of Mexican *hacals*. Its courage is beyond question, and its agility and ferocity make it the deadly foe of the centipede, tarantula and orange-winged wasp; each of which articulates attains gigantic size in this region. I have no good proof that the bite of the vinegrone would be fatal to man, except perhaps as it might be supplemented by the shock of an excessive terror; but that it would be dangerous, I think highly probable. As an experiment, I confined two of them in a small box with a large bat. The next morning the bat was dead, having been killed by them during the night, when it is supposed to be most agile and wary. I placed another unsavory specimen in a large bottle, in company with a large wasp and a tarantula. The vinegrone killed and devoured them both in short order.

I am inclined to think that the acetic fluid, which seems to be secreted in abundance, is for the purpose of sexual attraction; though of this fact I am by no means sure. It may be a means of defense, and perhaps of offense, since in my wasp and tarantula experiment they both seemed sluggish and stupefied by the powerful odor that pervaded the bottle. I inclose



a rough sketch of the subject of my note, which may possibly be recognized as an old acquaintance by many of your readers, and may be of interest to those who have not met the villain in person's propria.

Fort Stockton, Texas, May 25, 1877.

[The above notes cannot fail to be of great interest both to the ichthyologist and entomologist.—Ed.]

**THE RIBBON FISH.**—I observe in your last issue a note on a species of ribbon fish (*Regalecus*) taken in the Mediterranean, from the pen of Frank Buckland. As it brings to remembrance the capture of a remarkably large specimen of the genus in the Bermudas during a visit I paid to those islands in the winter of 1859-60, I may perhaps be permitted to make a few observations on the subject. The specimen in question was the largest ever taken in any part of the world, measuring no less than sixteen feet seven inches in length, and the filaments upon the head forming a magnificent plume-like crest, nearly three feet in height.

As I suggested at the time when describing the fish in different journals, there is hardly a doubt but that monstrous specimens of the *Regalecus* are the "sea-serpents" we hear of at intervals. I have taken the trouble for some years to collect all the accounts of such occurrences, and in one instance had the good fortune to prove from personal examination of the testimony of a Norwegian gentleman who had encoun-

tered one of these monsters off the coast of his native country, that the creature—some sixty or eighty feet in length, the head and crest of which were raised above water in close proximity to the boat in which he sat—was in reality a huge *Regalecus*. Again, the description of the "sea-serpent" seen by Captain M'Quhae and the officers of H. M. S. "Dædalus," tallied so exactly with that of a *Regalecus* as to leave no doubt of its having been one, and several occurrences I can bring forward tend very closely to prove that the *Regalecus* and "sea-serpent" may be considered identical; and I have every reason to believe that sooner or later one of these monsters will be taken to prove the truth of my assertions.

One fact I desire to make known to any one who has the good fortune to be present at the capture of such a fish, is the delicate nature of its substance, so delicate indeed that, in the case of my Bermudian specimen, the mere lifting it up was sufficient to mutilate its parts. It will therefore require very tender handling, and if killed by a shot and lying alongside a vessel, the captors should not attempt to haul it on board in the usual rough way, but lower a large sail in which to collect its folds, and then hoist on deck.

Halifax, N. S., Aug. 21, 1877. J. MATTHEW JONES.

**PENGUINS AT ST. PAUL'S ISLAND.**—A recent writer (M. Velain) in the *Revue Scientifique* speaks of the curious habits of these birds as follows:

"In that bleak and inhospitable island, situated in the southern hemisphere, a certain kind of penguins, called goorfoos, much more ungainly than their northern brethren, live in swarms. But they only resort thither in the summer months, or a little before, from August to March; they lay their eggs in September, and always return to the same spot. Nimble as they are in the sea, where they swim with astonishing speed, they are excessively awkward on land, where the utmost they can do is to keep themselves upright on their paws and hop about, their wings being utterly unfit for flying. And yet these birds will only build their nests on high plateaux, which they cannot reach except by desperate exertion. Many a time the poor penguin, after nearly arriving by a steep ascent at the brim of its plateau, will roll down again, a treacherous stone having given way under its paw. Nothing daunted, the poor fellow will recommence his task, until, sometimes covered with blood, he gets to the top. These creatures arrange their nests so as to actually form a village, with streets, lanes and public squares. Here they cluster together, making an awful din, and generally turn their snow-white breasts to the sea; their heads are adorned with yellow tufts. The crews of the *Fernand* and the *Dives* used to visit their village, christened by them *Penguinville*, in order to have a good laugh, the grotesqueness of the postures, coupled with their gravity, being well calculated to cause gaiety. On the arrival of the visitors there always was a great turmoil and chattering, but after a few minutes quiet was restored, and each bird continued to mind its own business. The men lived with them on the best terms. Notwithstanding the great labor attending the ascent, the penguins used frequently to return in troops to the sea, an excursion which did not take them less than half a day, but they always returned with provisions to last them nearly a week. The young are hatched in September, and then have a greyish tint. It was a curious sight to see them marshalled some days after on the public square, and watched by grave personages who knew how to punish them if they did not behave. Under this severe surveillance they were fed several times a day. Woe to the little imp that attempted to snatch a morsel when it was not its turn."

**WILD TURKEYS.**—An extract in the *FOREST AND STREAM* of Aug. 16th, touching the habits of the wild turkey, is not altogether uninteresting; but is so erroneous that I crave a space in your columns for the purpose of correcting the writer's assertions. No greater error exists than that the wild turkey is unable to rise from the ground in its passage across streams, or upon other occasions; or that it is accustomed to seek out the highest points and mount into the tallest trees for that purpose. It seeks such places to roost at night. I have hunted them more or less every season during the past fifteen years, have observed them under many circumstances, and found them as quick and strong of wing as any other game bird except, perhaps, the quail, and when flushed from their covert either in or out of the timber requiring the same degree of expertness in bringing them to bag. Indeed, I have seen an old gobbler of eighteen to twenty pounds weight take wing at the water's edge of the Missouri River and fly across it, a distance of half to three-fourths of a mile, in as straight a line as a quail, a grouse or a duck could have flown the same distance. I have often been foiled in pursuit of them by the whole flock performing the same strategic movement before I could approach near enough for a shot. I have no desire to discuss the gastronomic qualities of this bird. Persons differ in tastes; but for me the wild turkey of this locality is far the most preferable for the table. Both as to quality and whiteness of its flesh it is superior to that of its domestic congener. These with other well-known distinctions between the two species go far toward the correction of the other assertion that, "The tame turkey is a direct descendant from the wild," meaning, I suppose, the wild turkey of the United States.

BOB WHITE.

[The above strictures are true in part; but did the writer ever see a flock of turkeys on their travels and just previous to crossing a river? We have, and on that very Missouri River too, and the fess they made before taking wing put us much in mind of the barnyard species, who, though he uses the same perch to roost on each night, goes round and round, all but flying, and then hesitating, walking off to take a new survey as if in hopes of finding some newer and easier way of accomplishing the feat. Wild turkeys can take wing with very rapid flight when startled, but they are a lazy bird, and when strutting at their leisure, like some other bipeds, always take the greatest trouble to accomplish a little matter. When crossing rivers wild turkeys are given to the very acts stated in the article to which our correspondent takes exception.—Ed.]

**CAPTURE OF A RARE BIRD.**—The *Columbus* (Ga.) *Enquirer* recently published the following note. We presume that the specimen was not preserved, although it certainly should have been:

We were shown a great curiosity the other day by Mr. T. Bryant, one of our river pilots, who has been spending some months on the south Florida coast. It was a scarlet flamingo,

now a very rare bird, but formerly quite plentiful along the Louisiana coast. It is six feet or more tall, and about five feet from tip to tip of extended wings. Its feathers are a beautiful scarlet of different shades, the wing feathers are jet black and, with its gandy uniform, it must present quite a soldier-like appearance among the coast birds. It was killed at the pass of Sarasota Bay, Florida, with two others. They are shaped something like a crane, are about eight feet in length, with neck, legs and body about two feet each, and have webbed feet. They are a very shy and graceful bird, and are seldom seen even by the frequenters of the south Florida coast.

**Syracuse, N. Y., Aug. 14.**—Why are fish so much affected by the course of the wind—at times, with the wind at a given point, taking the bait readily, and refusing to do so with the wind in opposite direction?

Ans. We can't answer your question. Atmospheric changes affect the higher vertebrates as well as fishes, but these matters have not yet been studied, and cannot at present be satisfactorily explained.

**THE FLIGHT OF BIRDS.**—In regard to the flight of birds, I think that there is no necessity to resort to such theories as the figure of 8 motion to understand how a bird flies when it beats the air with its wings. I think that the formation of the feathers, and their imbrication in the wing, ought at once explain that kind of flight. When the bird makes the down stroke, the wing offers a solid resistance to the air, and the motion imparted to the body of the bird must be upward. The wing must then be raised to come into position for another stroke. In so doing, each feather lets the wind pass through in an oblique manner, which causes them to act as sails on a windmill or on a ship, thereby propelling the bird forward. The bird instinctively knows how to direct these strokes, as it wishes to ascend, descend, or move straight forward. The effect of the down stroke can be seen when a large bird such as a turkey buzzard begins to fly in a place where there is not room for rapid headway. Each down stroke is more violent than the up one, and the body is jerked up each time.

A flying machine might be made so that the wings would have a sufficient resistance to the air to keep it up, and the propelling part could be arranged independently. But there is another mode of flight that has puzzled the minds of men. It is a remarkable thing that man has seen beyond the Milky Way, and is now studying the constituents of the sun, yet he cannot understand the sailing of birds. I have seen many attempts, but they all fall short of the mark. I have seen buzzards with outstretched wings rise in a spiral course, when it was so calm that a leaf on a tree was not moved. I have seen the frigate bird wheel in graceful curves upward when the sun was as smooth as a mirror. I have seen the buzzard sail near by in the eye of a strong wind without any other motion being perceptible than a little balancing. I have looked down hundreds of feet on them as they sailed beneath me, and never could detect any motion of the wings. The theory of inclined planes will not explain it. I have also noticed large butterflies float about in a most heaven-like enjoyment in some cozy opening among trees, on a fine summer evening, when there was not a breath of air, without once moving their wings, as if they were some disembodied spirits that had neither attraction or gravitation, but only will. I have seen a motion very similar to the sailing of birds in fishes. I saw a number of porpoises sailing immediately in front of the prow of the steamer. They were packed quite close together, and moved exactly as fast as the steamer. As it was necessary that they should breathe occasionally, they were continually rolling over each other to come to the surface. Sometimes half the fish would be out of the water, yet the uniform motion was kept up, and no one on board could detect any motions of fins or body to warrant such speed. There are other modes of flight such as by bats and insects, the dragon fly as an instance; but the sailing of birds is a most interesting study for philosophers, and it will be safe to say that man will never be able to put it in practice. But the knowledge may come in play in explaining some things yet in embryo.—*Scientific American*.

**THE PIRIA.**—This is the *Serrasalmo niger*, black, saw-bellied salmon (*Arrauco piranda*) or sharp fish, described by Schomburgk in his "Travels in South America." "This voracious fish is found plentifully in all the rivers of Guiana, and is dreaded by every other inhabitant or visitor of the river. Their jaws are so strong that they are able to bite off a man's finger or toe. They attack fish of ten times their own weight, and devour all but the head. They begin at the caudal fin, and the fish being thus left without the principal organ of motion, is devoured with ease, several going to participate in the meal. Indeed, there is scarcely any animal which they will not attack, man not excepted. Large alligators, which have been wounded in the tail, afford them a fine chance of satisfying their hunger, and even the toes of this formidable animal are not free from their attacks. The feet of ducks and geese which are kept in the neighborhood where they are plentiful, are almost invariably cut off, and young ones devoured altogether; and in these places it is not safe to bathe, or even to wash clothes in the river, many cases having occurred of fingers and toes having been cut off by them. They are a principal article of food among the Indians, they being, however, dry and indifferent, and rather bony. The piria or numa, by which name the fish is known to the aboriginal tribes of British Guiana, inhabits the rivers which intersect that fertile colony. They are not to be found within forty miles of the coast, nor are they plentiful at the upper part of the rivers. Their favorite haunts appear to be those parts of the rivers which are between a hundred and a hundred and fifty miles from the coast, chiefly if there be large blocks of rocks, about which they hover to procure themselves worms, etc. The ovary in the female is double. They deposit their spawn in the currentless ulcuts which form so peculiar a feature in the rivers of Guiana; this occurs during the months of January and February, at which period we found the females generally destitute of roe. They are caught with hook and line, and their greediness is so great that no art is necessary to conceal the bait. The hook may be baited with a piece of fish, bird or animal, or merely their entrails; the piria will dart at it the instant it is thrown into the water, and seize it with eagerness, but it frequently happens that with its sharp teeth it bites the line and escapes with the hook in its mouth. We therefore surrounded the line where it was fixed to the hook, to the length of two or three inches, with tin or lead, and though it had a clumsy appearance we were not less successful. Some precaution is necessary even after the fish has been lifted out of the water, or it will inflict in its struggles serious wounds; the angler has, therefore, a small bludgeon ready, wherewith its skull is broken.

A NEW FISH DISCOVERED.—Mr. G. Brown Goode gives the following description of the new species of flounder, which has been found by the United States Fish Commission: "On Monday the dredging party discovered, ten miles off Salem, a fish entirely new to America—the Pole or Craig flounder (*Glyptocephalus cynoglossus*), heretofore known only from the arctic coasts of Europe. This fish appears to be a resident of Massachusetts Bay, since both adult and young specimens were taken in considerable numbers. It does not take the hook, and its existence had not been suspected. The largest weighed about four pounds, and is doubtless an excellent table fish. Another small fish (*Ictelus uncinatus*) hitherto known only from Greenland, was also taken. During the two summers' work on the southern coast of Massachusetts, several new fishing grounds were discovered."—*N. Y. Times*.

THE AQUARIUM.—The special expedition to Bermuda for tropical fishes was very successful. Last Monday, as a result of this trip, more than three hundred rare and valuable specimens were placed in the tanks. Among the specimens are ten yellow tails, thirty yellow grunts, male and female; fifty of the celebrated angel fishes, five four-eyed fishes, a group of butter fish, gray snappers, Margate fish, with changeable colors; twenty breams, twenty pink squirrel fishes, fifteen spotted kinds, fifteen Hamlets, fifteen Bermuda lobsters (a very odd creature), ten cow pilots, several surgeon fish, ten rare sunflower anemones, corals, a young frigate bird, and several marine curiosities. The Aquarium is now even more interesting as a place of resort than ever.

BIRDS OF CENTRAL NEW YORK.—In the *Auburn Daily Advertiser*, Aug. 14, Frank R. Rathbun publishes a full list, with classification and notes, of the birds of Cayuga, Seneca and Wayne Counties. This list, it will be remembered, originally appeared in this journal. It is worthy of more permanent form than the columns of a newspaper.

—A New York taxidermist has during the past summer stuffed sixty pet canaries. Forty of these were in such poor feather that he was obliged to supply their places with yellow birds, which he said answered every purpose, so long as the owners were blissfully ignorant of the exchange.—*Boston Journal*.

—Orioles, blue birds, cat birds, wrens and swallows, hitherto not known in the neighborhood of Virginia, Nevada, have made their appearance there this summer.

ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDENS FOR WEEK ENDING AUG. 14, 1877.—One racer (*Scotophilis alpehensis*), presented; one Cuban tree (*Euphorbia augustifolia*); three Mexican hogs, presented; one Savannah deer (*Cervus savannarum*), born in garden; one loggerhead turtle (*Thalassochelys carolina*), presented; one six-banded armadillo (*Dasypus sexvittatus*), purchased.

FOR WEEK ENDING AUG. 21.—One raccoon (*Procyon lotor*), presented; six Gila woodpecker's hair seals (*Talophis gilensis*), purchased; one white rat (*Rattus var. albino*), presented; three copperheads (*Cineirodon mordax*), purchased; eight water moccasins (*Ameiobatrachus piscivorus*) purchased; five black snakes (*Eusemion constrictor*); two grass snakes (*Ophocelus ventralis*).

ARTHUR E. BROWN, Gen. Supt.

## Woodland, Farm and Garden.

### IMMORTELLES.

IN France, as in this country, an affectionate remembrance of the dead is manifested by periodical votive floral offerings, which relatives and friends lay upon or suspend over the last resting-places of those who were dear to them in life. As emblems expressive of that higher existence which, perhaps, in their inmost hearts, most men desire to lead, even on this "sin-worn world," flowers, in their lovely and innocent lives, are the most appropriate objects which the whole range of nature can present. But even here, amid the highest and purest forms of beauty granted to human perception, occurs the humbling sense of the instability and fugaciousness attached to all sublunary things. In the expression of that devotion which attributes to the memory of the departed excellencies lightly, or it may be hardly at all recognized amid the induced apathy and "dreary intercourse of daily life," the mind, purified by loss, and by the reflection that all other atonement is late, would not only present the most beautiful offering that earth can afford, but endeavors to make the token as lasting as possible. And so the flowers of the Immortelle or Everlasting offer themselves among the thousands of other flowers, many more beautiful, but none so fitted to grace the long repose of the tomb.

This plant, known to botanists under the name of *Helichrysum orientale* was originally a native of the north of Africa, the Island of Crete and some parts of Asia. Although known in Europe since 1629, it was not generally cultivated in gardens before the year 1815. At present, it is chiefly grown in Lower Provence, in the south of France, where the land gradually inclines to the shores of the Mediterranean. It comes to the greatest perfection on the slopes of Baudols and Ciotat, in positions well exposed to the sun, and surrounded by dry stone walls, where it commences to bloom in June. It is seriously injured by much rain, and to some extent even by heavy dews. It does not thrive in any soil that is not light, sandy or stony, or porous. It is propagated by division of the larger tufts. The flowering stems are gathered in June before the flowers are fully expanded. As both immature flowers and those which are too full-blown are rejected in the market, it is important that the stems should be cut, neither too soon nor too late. The flowers are gathered by women, who make them up into small bundles, which are usually placed to dry on the stone walls of the inclosure in which they grow. When

properly dried, they are taken away by young girls, who are employed to remove the downy covering from the stems. A pound weight of the dried plants contains about two hundred stems, each bearing on an average twenty flowers. Each tuft of the growing plants produces from sixty to seventy stems. An acre of ground contains about 16,000 tufts, which will annually yield from two to three tons weight of dried immortelles, and a well established and well managed plantation will continue productive from eight to ten years. The flowers are sold either by the bundle or weight, the bundles ranging from three to six cents each, according to size, while if sold by weight, the price varies from three to five dollars per cwt., according to the state of the market. The natural color of the flowers is a deep yellow, but the manufacturers of garlands, bouquets, wreaths, etc., dye large quantities of them in other colors also, chiefly black, green and orange red. This last named color is very handsome, and is the favorite tint of the people of the south of Europe. It is said to be obtained from a preparation of borax. Large quantities are also bleached white with a preparation of chloride of lime, and with the natural yellow flowers and those which are dyed black, are used to form the wreaths and other devices devoted to the dead. Those which are dyed of brighter colors are used either alone or mixed with natural flowers for bouquets or room decoration—in these, however, the immortelle takes no very prominent place among other flowers. Its great distinction from them seems to consist in its possession of those peculiarities of structure which have induced a nation of sentiment and refined taste to select it as the most fitting of all to fill the office and bear the title of "The Flower of the Grave."

### A FOREST SCENE IN CENTRAL AMERICA.

WE were now in the midst of a dense pine forest, with tall trees—every one fit for a spear for the Titans when they warded against the gods—on either side of us. The rude little path which the settlers have hewn out of this dense wooded mass is every now and then barred by one of these forest giants, which the wind has thrown athwart. How painfully silent are these fir forests of the North Pacific! At one portion of my life it was my happy lot every morning to walk through part of a great tropical forest in Central America. Fragrant odors of many flowers and spices were wafted in the sultry air, and everywhere the forest rang with the scream of tropical birds of gorgeous plumage, and the chatter of the long ring-tailed monkeys, which swung themselves from branch to branch and tree to tree, in utter astonishment at this degenerate descendant of theirs, who was permitted to walk afoot, while they sported themselves among the leaves of the india-rubber trees, and ate the luscious fruits from among the waves of flowers which rolled from forest tree to forest tree, until, as you looked from a rising ground, the whole expanse of country before you seemed in places like a sea of foliage and flowers. Above all, filling up as it were every vacant space, was the never-ceasing din and hum of insect life which arose from among the trees. That forest seemed like one huge temple, where ten millions of unseen choristers sang a never-ending hymn of praise to the "Unknown God!" Here, 40 deg. to the north, all is different. There are odors, but they are those of the fir-trees and turpentine, and you may listen for hours without hearing the sound or beholding the sight of a living being. We sit down and draw breath for a few minutes. From overhead comes a gentle tapping, and from a tree close at hand another similar sound; we look up and find that it proceeds from two species of wood-peckers boring the trees for insects. They are *Audubon's Picus Hursti* and *P. Gairdneri*, the only two species found on the island. We almost repeat what we said about the scarcity of life in the forest, for down jumps from a tree a little brownish squirrel, which stares at us for a second, then, tail on end, skips along a fallen tree, tears open a fir-cone, extracts the seed, and then skips off on the errand he is bound. There are several species of squirrels in the North Pacific slope of the Rocky Mountains, but this is the common one (*Sciurus douglasii*). In the mild climate of this region it does not hibernate, but may be seen all the year round jumping about, fearlessly approaching the traveler, and then tossing up its tail as it runs off scolding and barking. As we are moving off, a pretty fawn ambles into the pathway just before us, again trots into the bush, and in a minute is lost among the thick foliage.—From "The Countries of the World," by Dr. Robert Brown.

—From a work on the *Materia Medica of the Hindus*, recently published by Mr. George King, of the Royal Botanical Gardens, Calcutta, it appears that, notwithstanding the present extensive growth and use of both tobacco and opium in India, neither of these narcotics were known there in ancient times. Opium was introduced by the Arabs, and tobacco was brought hither by the Portuguese from America about the end of the sixteenth century. The "far country" whence the "sweet eae" was brought was India, and our modern word sugar-candy is made up of the two Sanskrit words *sarkara khanda*.

—The marshall of Tampa, Fla., protects a large alligator in the river adjoining the town, in consequence of his valuable services as a scavenger.

—Bauana culture is successfully pursued in Southern California.

### THE USEFUL PLANTS OF MEXICO.

IN the Centennial Exhibition last season Mexican products came in for a fair share of representation, the useful plants of the country being not only abundantly shown, but also fully described in the catalogue of Mexican exhibits. This catalogue, useful as it is, would have been much more so had more care been taken in the scientific nomenclature; not only is the spelling faulty, but the specific names of many of the plants are absolutely unidentifiable. The occasional descriptions of Mexican scenery give a tolerable idea of the natural features of the country. Thus: "Besides the beautiful landscapes presented to the traveler by deep ravines, the elevated mountain tops and the splendid vegetation found all along the road, there are other objects which increase the attractiveness of the picturesque views. On leaving the City of Mexico, the beautiful lakes of the valley and the elegant tops of the Potocatepetel and two Xyatlahuatl, ever crowned with whitest snow, are presented to the eye of the observer. In San Juan, (T.) Leotihuacan, again are seen the pyramids raised by the Toltecs, and dedicated to the sun and the moon. Further on are seen the extensive Maguery fields, that precious Agave (A Americana; [described in Cat.] of which intoxicating liquors and the famous pulque are extracted." This pulque is as much a national beverage in Mexico as lager beer is becoming with us. In small or moderate quantities medicinal or hygienic properties are attributed to it, but in large quantities it is intoxicating. The fibre is valuable, not only for making ropes and cordage, but also for paper, which is said to be remarkable for its whiteness, elasticity and strength. It is made in large quantities in Mexico, and so abundant are the plants that the supply is inexhaustible, and the cost of the material very trifling.

Between the high summits of the Mexican volcanoes which tower at about 18,000 feet above the level of the sea down to both shores on the Pacific and the Gulf, there are a great many intermediate degrees proper for the most varied types of vegetation. The "Guayabas" (*Psidium*), the Anonaceæ Aecias and other plants live and grow abundantly in the low lands, where coffee and sugar can be cultivated under the most favorable conditions. Leguminosæ and Ericaceæ notably occupy the medium height, and the Coniferous and Cupuliferous plants climb up to the limits of perpetual snow. Several families seem to be adapted to a variety of climates, and their genera are found at different levels, living even in dry and rocky grounds. Among these may be mentioned the Bromeliaceæ and Amaryllideæ, which occupy the greater part of the Mexican Mountains. In the list of medicinal products eighty-six plants are enumerated, showing that this application of the vegetation of the country received a large share of attention. Gums, resins, and vegetable waxes were also numerously exhibited. The resin obtained from Hymenocoubaril seems to be known by the name of "Coapinole." It is used extensively in the manufacture of varnishes, in the same way as true copal. Large quantities are collected in the State of Oaxaca, and sold in the city of Mexico at one dollar a pound. A resin called "Peuca copal" is exceedingly abundant, and is said to be produced by *Elaphrium copalliferum*. Under the name of "Brea" is described a resin which is said to be "the result of the distillation of the turpentine from the *Pinus tecotele*, which grows in the cold districts of Mexico." This "Brea," when dissolved in warm alcohol, precipitates after cooling, becomes pure and takes a white color. It is used in the preparation of illuminating gas, and in the manufacture of soap.

From a description of the "chayote" (*Seschium edule*) we learn that the plant grows luxuriantly, yielding abundant fruit the first year. Under favorable circumstances a single plant produces annually from eighty to one hundred fruits. It is of very easy cultivation, and is grown extensively for the sake of the fruits, as well as for the great tuberous roots, which contain a large quantity of starch or arrowroot, both of which are eaten.

J. H.—Your plants from the White Mountains gave great pleasure; they are: No. 1, *Potentilla tridentata*; No. 2, *Artemisia Greenbushæ*, Arctic Sandwort; No. 3, *Diapensia Lapponica*; No. 4, *Loisleuria* (syn. *Azalea procumbens*); No. 5, *Lycopodium lucidulum* (the first time we have seen it from so high a latitude), and No. 6, *Lycopodium selago*, a fine specimen and very rare.

X.—The Ascension lily is *Lilium candidum*. It is often seen in pictures of the Virgin Mary, by old masters. It is also known as St. Katherine's lily.

P. J.—*Baccharis grandiflora* is one of the numerous ornamental shrubs introduced from China by Mr. Fortune, who traveled in that country for several years. It is a most distinct and perfectly hardy shrub, and deserves far more general cultivation than it has heretofore received. It is of neat, shrubby habit, growing with us from six to eight feet high, and, like the *Spiræas* and *Weigelias*, requires a little pruning and trimming after it has done blooming to keep it neat. The flowers are pure white, borne in racemes, and though we have many white blooming hardy shrubs in May, this has a character peculiarly its own, and should have a prominent place in every garden.

—Hannah More was a canting precision sometimes and said many things more pious than accurate. She talks about

"Fell Luxury! more perilous to youth

Than storms or quicksands, poverty or chains."

When luxury and health, however, are synonymous, as in the case of the use of B. T. Babitt's Toilet Soap, even she would make an exception. In this toilet soap you can get the purest as well as the most pleasant and comfortable in use.

## The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age. 2. Food and medicine given. 3. Appearance of the eye; of the coat; of the tongue and lips. 4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc. 5. Breathing, the number of respirations per minute, and whether labored or not. 6. Condition of the bowels and secretions of the kidneys, color, etc. 7. Appetite; regular, variable, etc. 8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg. 9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

### MATTERS ABROAD.

AN interest in setters led me to attend the International Dog Show at Manchester, held at the Royal Pomona Palace, on July 20, 21, 23 and 24, under the very excellent management of Mr. John Douglas, to whose courtesy I was indebted for a pleasant acquaintance with a number of prominent sportsmen who have become known to Americans by their interest in dogs. Among these were Wm. Lord, Esq.; Mr. S. E. Shirley, M. P., President of the London Kennel Club; Rev. J. Cumming Macdona, and G. de Landoc Macdona, Esq., and Prince Albert Salms of Prussia, whose kennels are quite the most extensive, and best bred of any in Europe, and whose patronage of dogs is tending to foster on the Continent that rapid increase of attention to their breeding which is so marked in America.

The Manchester show in size and importance falls below those held annually at Birmingham and London, and yet its decided success this year was marked by the entry of the large number of dogs. There were no representatives from the kennel of Messrs. Llewelin, Cumington, Barclay Field or Brevin, and yet there was no lack of dogs, both good and well known. Of those among setters was Mr. Shirley's (formerly Hamming's) Champion Rock, to whom was very justly awarded the first prize in the English setter dog class, and also the cup for the best setter in the show, the second going to Mr. Macdona's Blue Prince II., and the third to Mr. J. B. Wilson's Bruce, by Laverack's Blue Prince out of Flash. Of bitches in the same class the first place was taken by Fletcher's Dora, while both second and third went to progeny of Laverack's Blue Prince, viz., Wilson's Floss, and J. F. Walton's Doll. Mr. Macdona's Rover again carried off the honors in the Irish class, while Mr. Shirley won first both in retrievers and fox terriers.

To the hospitality of Rev. J. Cumming Macdona I was indebted for a day or two of great pleasure at his home at Cheddar Rectory, Cheshire, about six miles from Manchester. Mr. Macdona is not slow to express his appreciation of the attentions extended to him while in America, and surely they must have been great if they exceeded his courtesies to your correspondent here.

The criticisms visited by some American journals upon a clergyman for giving public expression to his love for so noble an animal and one so important to the comfort of man as the dog, by attending the New York International Bench Show, did not want for English newspapers of a certain (or an uncertain) class, to give them currency, both by quotation and additional comment. It is a rule, as valuable as it is old, that to best judge of a man, you must learn how he is regarded at home, and tried by this test. Mr. Macdona's censurers will not find him much damaged by their opinions; for, on his return from America, he found his faithful parishioners in full force at the Rectory, with a brass band to tender him a serenade and a warm welcome home, and thus to let his critics learn how much those who knew him best, thought of him and how little of them. Indeed, I could well understand the esteem and affection in which the Cheddar Parishioners hold their Rector when, from his pew in the chancel of the fine old church, at the Sunday service, I could see not only from their large numbers and high character, but as well from their deep interest, how much they owed to Mr. Macdona's faithful and zealous labors. The church, which is a fine Gothic structure, was originally built in 1320, afterward rebuilt in 1634, and now, under Mr. Macdona's exertions and supervision, is being restored at a large expense, but one quite easily borne, I should hope, from the wealth of the congregation. It is Mr. Macdona's ambition that Cheddar Church, when its restoration is completed, shall be the chief object of attraction to the visitor at Manchester. The Rectory itself is full of interest. It's a large mansion, of considerable age, and built at various periods, with a spacious dining-hall, studded with heavy oaken rafters—black with time. In this room is an oaken mantel, a part of the spoil of Furness Abbey, made probably in the 13th century, very high and wide, and most richly carved with that perfection of art only to be found in England, until more recent times, in the Ecclesiastical architecture and ornamentation. Extensive gardens and lawn with shade trees, and that turf which is the despair of Americans, complete a picture of domestic comfort and beauty, which it seems that England almost only can produce.

Prince Salms, whom I found also a guest under the hospitable roof of the Rectory, desires to secure the establishment of a truly international show of dogs, at some point on the Continent, at once convenient of access, and where abundant accommodation can be furnished, as, for instance, Baden-Baden—and which shall secure the largest competition from the Continent and England, and, if possible, America, also.

Distance, however, would probably preclude any large participation from America in such an exhibition, although if our importation from this side of the best dogs continues at its present rate, we will soon reach a point of excellence in breeding when we need not fear the result, if, indeed, it has not been reached already.

Manchester, Eng., Aug. 8th, 1877.

AMERICAN.

—The dog tax collected in Crayford county, Pa., this year won't pay for the sheep killed, and the Commissioners will levy a special tax.



RED AND WHITE IRISH SETTER NED.

NED.—Ned, by Bailey's Shot, out of Wilkinson's Frank, Shot by an imported dog (name unknown), Frank from English woodcock strain. In color Ned is a beautiful red and white, and is marked very sharp; of medium size, and was whelped June, 1871. He received the **ROD AND GUN** premium, also special premium, at the bench show at Springfield, in 1875; and the gold whistle awarded at the Bench Show in the same city, in 1876.

### THE COLUMBUS KENNEL CLUB POINTERS.

EDITOR FOREST AND STREAM:

Although much has been written about the setter kennels of our country in **FOREST AND STREAM** and **ROD AND GUN**, no mention has ever been made of the kennels in which the breeding and rearing of pointer dogs is made a specialty. Perhaps a brief sketch of our kennel may stimulate others to follow suit as to the kennels in their neighborhood, and thus assist in keeping up the lately re-aroused interest in the not long ago almost lost sight of pointer.

The stalls of the Columbus Kennel Club building measure on the ground floor 4 by 9 ft., except that for whelps, which is 7 by 9 ft. and 8 ft. in height; are roomy, well lighted and ventilated, and open into a good-sized exercise yard.

The club owns seventeen pointer dogs, only four of which are kept kennelled for breeding purposes. Of the four we must first mention Champion Belle, who is well deserving of the honor, if only for her winnings. She is liver and white ticked, "symmetrical and beautiful, with general appearance racy." Her head is of fine size, and her nose is square and rectangular tipped; her ears thin in leather, set well back in the head, hanging close to the cheeks; she has a well pronounced stop, a fair forehead, good eyes and large nostrils—in other words she is an Idstone's ideal. She was never beaten upon the bench but once, and then she was in no show form. She took the first prize at Chicago, Baltimore and Philadelphia, and champion in the champion class at New York City.

Second stands Fan, better known as Gillespie's black Fan, a jet black gyp, with a little white on neck, and breast ticked with black; having immense quality and endurance. She took first at Chicago and a first and special prize with her two three-months-old pups, Black Prince and Black Countess, at Baltimore. She produced in one litter four first prize winners, viz.: Prince, Fleet, Countess and Princess. Fan was brought to this country by a gentleman coming from England to reside here, and her fame became so great that the club determined to own her, and finally accomplished their object. Some object to her fineness; but if all resemble this one the finer we breed our pointers the better, for she refuses neither briars nor water, and we have yet to see her tire.

Shot, the stock dog, is a large, powerful animal, but not weighed down with lumber. In color, white, with slight chestnut markings on head and ears. He has the longest nose we ever saw on a dog of his size, and its flues resemble good sized rifle bores, easily accounting for his unsurpassed olfactory powers. His get is fine, all bearing his impress. He took first prize at Detroit, and if it were not for his disfigured caudal appendage, would take first prize at almost any bench show.

Last comes Fannie, formerly known as Price's Fannie, who has always been so busy in the field and far away from home that she never could be shown. She is direct from the Royal Kennels, a gift from the Prince of Wales. In color she is white, with evenly marked orange head and ears, and a spot or two of orange on the back. In build she resembles somewhat the Spanish dog, but does not carry his amount of timber, and excels him in fineness. She is a persistent worker,

carrying a high head, quartering her ground regularly, staunch on her point, and having been worked upon all kinds of game she is as near perfection as breaking and use can make any dog.

BOURGEOIS.

RUSSIAN SETTERS AND CLUMBER SPANIELS.—In the **FOREST AND STREAM** of August 16th, I was pleased to meet with a letter from our friend Amicus Canium, touching upon Russian setters, a breed that I have so often heard discussed but never have had the good fortune to meet—in its purity. Indeed some cavaliers question the fact of its existence as a distinctive strain at all.

In his latest work on "The Dog," Idstone says: "I have heard of Russian setters, but I have never seen one worthy of that name, nor do I think that such an animal is bred or cultivated by the Muscovites; at any rate I shall not be able to say much more of him or his performance than the late Mr. Lang, of Cochspain street, whose account of some he once possessed has been quoted by so many authorities, that it must be well known to all who take any interest in the gun—but I believe he subsequently modified his opinion of them."

It will be seen that Idstone is careful not to indorse Mr. Lang's opinion, but called attention to the subsequent modification of the views of this breeder in respect to them.

I hope that now the question has been mooted in your columns it will draw out full and free correspondence from all sides.

Amicus Veritatis, in his letter (to which Amicus Canium refers) championed the cause of the Clumber Spaniel, and I expect will have something to say for the breed in answer to the article on "Dogs for Close Covert," for certainly it is the best and purest of the field spaniels now existing, the handsomest if not the most useful of them all. Like good wine, he improves with age and adds to his knowledge from experience, so that when your setter or pointer is *hors du combat* he is in his prime. The breed, unfortunately, is but little known in this country; but, as I learn that there are good specimens here now, I hope to see that plodding, sturdy fellow come into more general use. There are many sections of our country where he would be invaluable.

In the recent dog shows through the land, some of which I attended, I do not remember to have seen a Clumber nor a class allotted to him; perhaps had a class been assigned more might have been brought out than are generally supposed to be among us.

CANIS MAJOR.

RUSSIAN SETTER.—In **FOREST AND STREAM** of Aug. 16th, "Amicus Canium," in his paper on Russian setters, quotes Frank Forester as never having seen a Russian setter. Now, Mr. Editor, will you please to give your understanding of the following sentences—of which A. C.'s quotation, "I have never seen a pure one," is a part—taken from his *Manual and Field Sports*: "His color is black, black and white, or pale lemon and white; I never saw one of any other color. I have never seen a pure one—though I once owned a half-breed, a most superior animal—in America, nor are they common or easily attainable in England. I learned to shoot over one in England \* \* \* and almost everything that I know of shooting that old Russian taught me."

It makes an admirable retriever, and would, I think, suit this country beyond any dog with which I am acquainted, though I have never seen one in America. \* \* \* The Duke of Devonshire had, when I was in England, and I believe keeps to this day, this fine variety in its purity; and in my boyhood my father, the late Dean of Manchester, had some excellent dogs of the Russian breed, one of which, Charon, was the best dog, far or near, over which I have ever drawn trigger.

Could not Lieutenant Ismailoff, of the Orloff Trotters, be approached as to whether Russia has a distinct variety of setters? Idstone has pronounced all Russian setters myths. Why should A. C. appeal to him?

Columbus, Ohio, Aug., 21, 1877.

BOURGEOIS.

[That Frank Forester never saw a Russian setter, "pure and undefiled," is evident from his own admission. What more can be said? It is extremely doubtful if there be a pure-bred Russian in all Great Britain, the dog carrying the name being a cross between the Russian and English breeds. Charon was one of these cross-bred dogs. Even in Russia and Finland they are rare, and it is a mooted question whether there can be found a Russian setter of pure strain.—Ed.]

RIO GRANDE TROUT.

CIMARRON, New Mexico, Aug. 8, 1877.

EDITOR FOREST AND STREAM:

From the allusion to this fish in your issue of July 26, I am led to infer that the general information in regard to it is so meagre that a few notes on its occurrence and habits may not be without interest. The Rio Grande trout, the Salmo pleuriticus of Cope, is found in all the mountain streams of Southern Colorado and New Mexico, the finest fishing being generally found in the head-waters, in the parks which lie on either side of the main ranges of the Rocky Mountains, at an elevation of from 7,000 to 9,000 feet above the sea. In some of these beautiful basins, nesting at the base of snow-capped peaks, 13,000 feet or more in height, one can find during the months of summer and autumn, a combination of magnificent mountain scenery, exhilarating climate and fine fishing, not excelled anywhere. This species is undoubtedly one of the handsomest, as well as gamiest, of its kind. I have taken it in many different streams in this region, and find some variation in its specific characters. I have recognized two rather well-marked varieties which are distinguished by the color of the skin on the belly. In one it is yellowish white, with scarcely a trace of red about the fins and head, and in the other a brilliant deep pink. This difference is not due to age, as it is observed among all sizes. The spots in all are black, and vary greatly in number, but they are generally numerous, arranged in longitudinal rows along the whole length of the body and covering the caudal fin. But a few days ago I took one about eight inches long with very few spots, and those distributed only on the anterior half of the body, the tail and rear half of the body being entirely free from them. There is also a difference in the flesh of these trout. In some it is a pure white; in others it assumes an elegant pink or salmon color. The latter are by far the finest for the table, possessing a firmness and flavor not found in the others; but the color of the flesh does not correspond to the outer markings, for those with pink flesh invariably, so far as my observation goes, have white skins. The white skinned fish do not always have pink flesh, however, nor am I able to affirm positively that none of the red bellied ones have it, though I have not so far observed it in them.

It is a voracious fish when in the humor, and will take almost any kind of bait, though like its congeners it is capricious in its appetite and will at times display a most unaccountable indifference to the most tempting lures. Angle worms are generally good, and also grasshoppers; at times they rise eagerly to the fly, and when they do the sport is superb in the larger streams. Hackles are by all odds the best flies, as they keep their shape better in the very swift streams. The winged grasshopper, or locust, is perhaps the most killing bait for real sport. Used with light tackle and without sinker you have all the excitement of fly fishing, while you are much surer of your fish in small brush-lined streams where there is little chance for a good cast or accurate strike. Sometimes, however, they will not take even this attractive bait. Indeed, I once fished one of our finest streams for nearly a week in September, where the trout were numerous and little disturbed, and they would not take grasshoppers nor artificial flies, save sparingly in the afternoon. But the eyes when floated on the ripples and sunk three or four inches in the pools and eddies at the foot of ripples proved attractive, and were the means of capturing several hundred. At times these trout are very wary and must be approached with great caution, or the angler gets no fish. The native Mexicans who fish with sinker and bait, large hooks and short lines, and who often thus take large numbers in the winter, prefer to have the stream a little muddy, as they say the fish bite better. The reason is apparent. Sometimes, however, the rapacity of the trout renders them oblivious of all danger, and they will take the hook time after time until landed. The fish commonly taken here average seven to eight inches in length, though as one becomes familiar with their habits he can capture enough of the old fellows to raise this average considerably. The heaviest I have taken is about a pound and three-quarters, though they are reported to be four and five pounds in San Juan River.

I had some excellent sport recently at the head-waters of the Vermejo, in this county, when a friend and myself took, in three half days fishing, near three hundred, among which were twenty odd weighing considerably over a pound each. Generally these large fish were shy, and required careful approach and sometimes patience, if not hooked at the first rise. There were some cases, however, illustrating the extreme of boldness. For instance, in fishing along where the stream was twenty feet wide or less, and a beach on one side without any cover or bank for concealment, the opposite bank being some two feet above the water with a little grass overhanging, and casting from the unprotected side, my friend struck a heavy fish, which got off, however. Immediately he took the bait again—a floating grasshopper—and kept it, hook and all, being lifted two or three feet out of water in the struggle. I then came up and could plainly see the fish lying under the opposite bank six or eight inches below the surface. We fished for him together, and within five minutes he was hooked no less than three more times and raised to the surface, but escaped each time. All this time, be it remembered, we stood on a level beach in plain sight; he then disappeared and we passed on down the stream. On returning a half an hour later I discovered him again in the same spot. My first cast frightened him apparently, but he at once returned, and when the next time the grasshopper, with his pink and white wings spread and fluttering, was carefully dropped just above him, he turned, and with one deliberate motion seized and swallowed it. A quick turn of the wrist fastened the bait in his gills, and he

started down stream toward some roots and snags with a speed and strength that made the reel buzz. Checking him rather quickly I lifted him on to the pebbly beach before he could recover for another rush. He was a beauty, fifteen inches long, and weighing no doubt, when taken out of the water, two pounds. He had the hook, which he had before taken, clear down in his stomach, having by some means got it free from the gills and gorged it.

Within a hundred yards of the same place and just before capturing the last fish I had an example of the opposite disposition. I was carefully approaching a bush standing beside a rather large pool of still water above a beaver dam, when I saw a dark brown object rise slowly to the surface and lie there. I stopped and watched it, puzzled by its singular appearance and action, and in a little while it sank as slowly and mysteriously as it had arisen. Seeing it imperfectly, I thought it must be some kind of water-snake, or strange monster new to me. Reaching the bank under the friendly shelter of the bush I watched and soon it appeared again in another place rising slowly and vertically until it rested on the surface, when its head and fins revealed the presence of a very large and very dark colored trout. Instantly my bait was lightly dropped in front of him, which he surveyed a few seconds and disappeared. Six or eight times he rose and sank in this manner, never appearing to be in search of food or anything else, but displaying the same lazy indifference to grasshoppers, the eyes and fins of his fellows, and the most tempting casts of flies. He would take nothing, and I had to leave him, only regretting that I could not take time to try him at sun-down, when a better appetite might have instilled a little more life and energy into him, and at the same time alas! proved his ruin. When railroads render this region better known, many sportsmen will pronounce these streams equal to any elsewhere for the taking of this splendid fish.

ΑΡΑΧΗ.

SPORT IN EASTERN CONNECTICUT.—Normich, Conn., Aug. 24, 1877.—Our city, situated at the head of tide-water on the Thames, at the junction of the Yantic and Shetucket Rivers, is located in the midst of what is naturally a great game district. Fresh-water fishing is the order of the day at present. In the spring we had very fair trouting early in the season, if one could find a brook that had not been fished. Our country is fairly lined with good, natural trout streams, but the fish have been pursued incessantly in and out of season almost to extermination. Some good catches were made early in the season, but later it was difficult to find a trout. One pound is as large as most streams show. July 1st our black bass season opened. The Shetucket and Quinebaug Rivers are well stocked with bass; they are caught as high up as Wilimantic, fifteen miles on the Shetucket, and at Jcwcet City, eight miles up the Quinebaug. Five pounds is the largest fish I have heard of. Strings of twenty to forty have been caught. One party of four claim ninety; another, one hundred and twenty. Gardner's Lake, a beautiful sheet of water seven miles west, is stocked with bass, though no very large catches are made. The writer took one of one and a half pounds, trolling with spoon, and a friend caught a three-pounder. For bait dobson is the favorite, as that catches the large fish, though worms are full as taking for the small ones. Our motto, however, is quality rather than quantity. I have tried fly fishing unsuccessfully, though bass have been taken in the river with the fly. We find the bass a very uncertain fish, one day taking the bait readily, and the next every enticement failing to secure even a nibble. In taking the bait they are fully as wary, if not more so than the trout, though the writer found a notable exception a few days since—was fishing with "dobs" with a nine-ounce bamboo rod, and making a very long cast to reach a certain pool. The dob is lively, and its special aim seems to be to get your line fast on bottom. I had a strike and commenced reeling in, but fetched up and, concluding my strike was the dob under a stone, I finally cleared by parting my line, leaving leader and hook behind. Had scarcely got another hook and bait into the water when a fish had it, and I landed a half-pound bass. I found stuck down his throat my lost hook and dob, and four feet of gut leader hanging from his mouth, and both hooks were fast. Our greatest difficulty here is to get dobson. They cost from \$3 to \$5 a hundred, and those who have the secret of finding them keep it well.

UNOAS.

LAKE ERIE BASS FISHING.—H. came into the office last May with glowing reports of the fishing at Kelly's Island which awakened all my enthusiasm, and believing that business could last forever, and bass fishing but for a brief season, I concluded to seize the opportunity, and with a party took the evening train for Sandusky. After a fair night's sleep upon the road we found ourselves listening to reports by railroad employes of the wonderful fishing at the Island. We marched down to the Myrtle, a fast steam passenger tug plying to the Island, whose captain told us that bait was scarce, and consented to wait for us, while the desired material was procured. The captain kept the donkey engine running all the way to keep our bait in fresh water, as the day was hot and nothing else would keep them alive.

An hour's ride brought us to the Island. We put our minnows into the tanks at the capacious boat-house, and Jacob Rusli at the "Island House" found rooms for us. Dinner over, boats and oarsmen were selected, tackle rigged, and off we started, some to North, some to South and some to East Bay. South Bay is a very good fishing ground in sight of the hotel, and directly in its front.

At night we compared notes and fish, and were most of us somewhat disappointed with the sport. The afternoon had been still and hot, the bass were sluggish and showed no fight; still we caught twenty fish each averaging in weight two pounds. The little show of fight was discouraging; as one who tried it said he "would as lief fish with a hand-line for cod as for such bass."

At supper the house filled, and pleasant surprises met us. There were fishermen whom we had met on the shores of inland streams, in the ocean surf and in the wilds of the North Shore. The result was the usual marvelous tales of salmon, striped bass and trout—successes and failures, with an occasional reference to the black bass. Indeed, some fishermen told larger stories of the last than of any of the others. Nor did the day's fishing suffer in the telling: How one boat (with an oarsman and two fishermen) had brought in one hundred and fifty bass; how another had one hundred and ninety, and so on until one reached two hundred and ten. This made our little catch of forty per boat sound small.

Next morning an early start was made, at which hour fishing with a fair breeze gave us better sport; but while the number of fish taken was not proportionately greater than the day before, there were larger fish, reaching, some of them, four and a half pounds, and the catch (counting out a few "croppies," or "speckled" bass as the boatmen termed them) averaged about three pounds each. The boat average for the

A JEALOUS SKYE TERRIER.—The following remarkable instance of jealousy and revenge, exhibited by a Skye terrier, is narrated by a distinguished Scotch lady in a work privately printed some years ago: "We had," says the lady in question, "a Skye terrier named Osear, which had a particular affection for Nanny, the dairy-maid, and always accompanied her to the milking of the cows, for which attention she rewarded him with a basin of warm milk. He always went with her to her father's house at Linlathen on the Sunday evenings, a distance of two miles, after having been to the established church at Mirrores, but on the occasion of the opening of the Free Church in the parish of Monifieth, which is not far from the dwelling of Nanny's parents, he went there alone, remained in the tent during the forenoon service, was observed among the congregation in the new building in the afternoon, and we suppose he must have remained till the evening service, as he did not appear at home till past eleven o'clock at night, when he gave tongue at the window of the maid's room. Once or twice after this Nanny had inadvertently gone from home without him, and he had observed her carressing some strange dogs on the road, which threw him into such a paroxysm of jealousy that he nearly demolished her wardrobe. He went to the room where she and the other maid-servants kept their clothes, drew two of her best caps from a basket, carried them down stairs, and hid them among some shavings in the stick-house. Being unable to extract the straw bonnet from the basket, he chewed the strings of it, and tore up a handkerchief, and finished off by selecting a printed gown of hers from among those of her fellow-servants, and tore it to shreds. Great was poor Nanny's consternation when she discovered that the creature whom she always said 'had marit wit than many bodies' should be guilty of such misconduct, so she gave him a good thrashing, and he vanished from the house. No one saw him again for a couple of days, Nanny looking very mysterious all the time, and feeling assured that he had 'over muckle wit.' The first intimation I received of his delinquency," adds the lady, "was from himself, when he came creeping to my feet, and looking into my face, as if entreating forgiveness. He did not go to the byre with Nanny for more than a week after this, but, on mature deliberation, he made an advance to lick her hands, and she restored him to favor.—Ee.

—Mr. John E. Develin's imported red Irish setter bitch Mollie, full sister to Moya, and first prize winner at the New York Bench Show of May, 1877, for imported red Irish setter brood bitches, gave birth to eight puppies, August 1st, at the kennel of David G. Hartt, Northport, Long Island. The brood contains five dogs and three gyps, which are by Rufus, who was also a first prize winner at the Bench Show. [See advertisement.

BUTLER ON THE DOG.—A fifth edition, illustrated, of this work has just been issued by D. S. Holmes & Co., of Brooklyn. Price \$2.00.

—The managers of the Louisville Industrial Exposition are arranging for a bench show of dogs during the last week of the Exposition.

—St. Louis is to have a Bench Show in October, when \$1,000 will be distributed in prizes.

BONA CANIS OBITA.—Mr. Wm. H. Balcom, of Worcester, Mass., has lost his highly-prized setter Peg, valued at \$500.

—Mr. F. O. de Luze, Spratt's agent, has just received a fresh lot of biscuits.

MUSIC HALL DOG SHOW.—The classes of this interesting entertainment, to which the public of Boston and vicinity are to be treated for a short time, are here notified.

Through the extra exertions of the management, a large number of dogs, both useful and ornamental, will be offered to the public eye. Many of the canine pets will be objects of attraction, and although there will not be so many hunters or sporting dogs, as in former shows held in other cities, there will be much to attract and interest the visitor. Most of the pets are owned by people who have shown great interest in assisting the managers by their prompt entries, and altogether we look for a grand affair. W. S. N.

Sea and River Fishing.

FISH IN SEASON IN AUGUST.

FRESH WATER.

- Trout, Salmo fontinalis.
Salmon, Salmo salar.
Salmon Trout, Salmo conflens.
Land-locked Salmon, Salmo gloyeri.
Grayling, Thymallus tricolor.
Black Bass, Micropterus salmoides.
M. nigricans.
Mascalonge, Esox nubilus.
Pike or Pickerel, Esox lucius.
Yellow Perch, Perca flavescens.

SALT WATER.

- Sea Bass, Selenops ocellatus.
Sheepshead, Archosargus probatocephalus.
Striped Bass, Morone tinnedus.
White Perch, Morone americana.
Weakfish, Cynoscion regalis.
Bluefish, Pomatomus saltatrix.
Spanish Mackerel, Cybium maculatum.
Cero, Cybium regale.
Bonito, Sarda sardina.
Kingfish, Menicirrus nebulosus.

FISH IN MARKET.—The novelty in Fulton Market this week is an installment of very fine green smelts from Bathurst, New Brunswick. These fish are packed in snow and moss and shipped per fast express to Mr. Blackford's market, where they arrive in perfect condition with their peculiar and delicious cucumber flavor unimpaired. Bluefish and Spanish mackerel from the Long Island coast are plentiful. Our quotations for the week are as follows:

Striped bass, 18 to 25 cents per pound; smelts, 20 cents; bluefish, 8 to 10 cents; salmon, frozen, 30 cents; mackerel, 15 to 35 cents; weakfish, 12 cents; Spanish mackerel, 20 cents; greeu turtle, 15 cents; halibut, 15 cents; haddock, 8 cents; king-fish, 25 cents; codfish, 8 cents; black-fish, 15 cents; flounders, 8 cents; sea bass, 18 cents; eels, 18 cents; lobsters, 8 cents; soft clams, 30 to 60 cents per 100; Long Island trout, 75 cents; Salmon do., 15 cents; Canada do., 30 cents; sheepshead, 20 cents; whitefish, 15 cents; hard shell crabs, \$3 per 100; soft crabs, \$1.25 per dozen; frog's legs 85 cents per pound.

day was sixty-two. The sport was fine, and the fish fought bravely, some of the larger ones only being taken after a sharp tussle of fifteen or twenty minutes, which, with light tackle, made very exciting sport.

But at night, gathered about the porches of the Island House, we heard big stories of the day's successes from others; catches of from one hundred and fifty to two hundred and thirty-five per boat. We noticed, however, the catches, though large in numbers, were not remarkable for weight, few being reported at over three pounds, while averages went as low as one pound. But the big catches were mysterious, and we concluded there was some secret about it we had not fathomed. One boatman said—but boatmen are not all strict truth-tellers—that hand lines were used, and three or four hooks on a line, and all the other devices a pot fisherman knew how to avail himself of. We found, on looking at the rods in the office, that to many lines were attached above the minnow hook bright flies; and, upon inquiry, found that at that season, while bass never took flies on the surface or even ordinarily under the surface, yet, when an active one was hooked at the minnow and was darting frantically around, he would sweep through the water in such a way that others would start in his wake and snap at the flies. Judging from our experience with trout, there might be something in this, but we did not try it.

The third day an attempt was made by some of the un-believers in big catches by fair means to solve the problem. Two Cincinnati gentlemen had made the biggest catches, day after day; they had the biggest and best boat and took two oarsmen, one being employed while fishing in baiting hooks and landing fish. This would give them considerable advantage of course, but not enough to account for their wonderful luck. So at least many thought, and this day two other gentlemen from the same city determined to see how it was done. All started out together, and the doubters gave their boatman instructions to keep always in sight of the big boat. The watch was kept all day, but nothing unusual was seen, and at supper all came together again. No one had been quite as successful as the day before, but our envious friends from Cincinnati, the heroes of the wonderful catches of the last five days, came in with the smallest lot of any. It is fair to say that while no "pumping" (hand-line or dippy fishing) was proved against them, the general belief was, that had not their friends been so socially inclined the catch of that day would have shown a larger score. It is not to be disputed that some men in their anxiety to make big counts resort to means such as gentlemen who fish for recreation scorn to avail themselves of. Against the means used by a man who fishes to make a living, when used in the proper season nothing can be said, but such are not often used by gentlemen. As sportsman with decent instincts would no more fish with half a dozen hand lines for bass, than he would seine trout, shoot a covey of fledgling quails on the ground, or use a swivel-gun on ducks.

One method resorted to at the Island was new to me. When the frequent bites gave indications of a school of bass a light pine stick for a float attached to a line having a half pound lead-sinker at the other end, would be thrown out, so the float formed a buoy around which the boatmen would pull, so as to keep within the school. It was seldom, however, that any large fish were caught from schools. From two pounds down were the ordinary sizes.

We started home the following morning carrying most of our fish packed in ice. Mr. Rush has boxes at his boat-house where fish can be kept as long as one desires, and his men pack in ice and ship at very reasonable charges. Everything is well and fairly conducted, and we should have to go far to find a better place for spring and fall fishing. Fishing commences about the middle of September and remains good for several weeks. This is better than spring fishing, and if any of the readers of FOREST AND STREAM are inclined to it a line or telegram to Jacob Rush, Kelley's Island, will meet with a prompt response. One word, in buying your minnows at the boat-house overlook the counting. We never knew it to fail that if one wanted a hundred minnows the count would come out just right from a draw in the tank, although a subsequent count of the contents of the bucket would ordinarily show a deficiency of from eighteen to forty one. In fact even greater deficiencies were charged.

THOSE YOUNG SHAD.—In our issue of Aug. 16th, in speaking of young shad caught near Washington Market, I gave the length of one as five inches and seven-eighths and the other a trifle less. For five read three and it will be as I intended, for certainly it is not remarkable to see a year old shad five inches long, as that is about the usual size. A correspondent asks how I know that they were shad, and to state in FOREST AND STREAM how to tell a young shad from a herring or alewife with certainty, and this is the way of it: It is not difficult to tell the family *Clupeoida* by the single dorsal, large deciduous scales, compressed sides and its serrated abdomen, or saw belly; but the species when young, like all immature specimens, are hard to determine in proportion to their immaturity. The size and shape of the sub-orbital bone or large bony scale immediately below the eye is, I think, the surest.

In the shad this is long, or rather deep, and has the lower angle moderately acute, while the river-herring or alewife has it comparatively short and the lower margin rounded. This is very plain in the adult fishes, and the difference could be distinctly seen in my three-inch specimens, hence I call them shad, and think them small for yearlings. I have never seen anything that I knew to be an adult hybrid between the fishes named, although I know positively of great numbers being hatched and turned out in the Hudson. As these hybrids were always sired by the alewife, *Pomolobus pseudoharengus*, it is not unlikely that there may be a uniformity in their appearance and a resemblance to either parent. I have often looked over the shad and herring at Mr. Blackford's in Fulton Market with an eye to this cross, but without result.

FRED MATHER.

MAINE.—The bays of Maine in the vicinity of Portland are full of mackerel, due, as the old fishermen say, to the fact that the sharks outside are numerous and have driven them in.

BIG FISH.—At a family gathering at the residence of Capt. Fish, in Falmouth, Me., a few days since, there were present seven ladies whose aggregate weight was over 1,500.

MASSACHUSETTS.—South Hadley Falls.—The dispute as to who first caught shad in the Connecticut River with hook and line, has been settled in favor of F. C. Bardwell, of this place, who has made affidavit before a justice of the peace that he took three shad with the hook and line, August 15th, 1869.

MOVEMENTS OF THE FISHING FLEET.—The number of fishing arrivals at this port the past week has been 72, as follows: Banks, 12; Georges, 49; Shore mackereling trips, 21. The receipts of fresh halibut have been very small—55,000 lbs. from the Banks and 15,000 lbs. from Georges, and prices have ruled high, the last sales being at 9 and 5 cts. per lb. for Georges. Codfish have been in fair receipt, 1,180,000 lbs. Banks and 585,000 lbs. Georges, but the weather is unfavorable for curing in large lots, and prices are well sustained, though ruling considerably below the prices at this season last year. But little is doing in mackerel, most of the Shore fleet coming in light. There have been no arrivals from the Bay, but two vessels are on the way home and daily expected.—Cape Ann Advertiser, Aug. 24.

Martha's Vineyard, Aug. 24.—A shark weighing 1,200 pounds was caught off Gay Head on Monday.

Gloucester, Mass., Aug. 24.—The schooner Grand Master, which left here March 20th for the Grand Banks, came into port last Friday, having 270,770 pounds of codfish, the largest Grand Bank catch ever brought into this port.

Rhode Island—Warren, Aug. 26.—Bluefish have appeared and are beginning to bite.

CONNECTICUT—East Hampton, Aug. 21.—Mr. Wm. G. Buell, a veteran sportsman, now the proprietor of the Pokapung House writes of Lake Pokatopaug: "The name, which is Indian, signifies Clear Water Pond. It is a beautiful body of water containing nearly nine hundred acres, and having in the centre an island covered with the original timber. The lake is well stocked with black bass, pickerel and all the smaller fresh-water fish. I have in three seasons put into the lake 20,000 land-locked salmon, and hope to live to take some of them. I am now sixty-three, and love the dog and gun as well as I ever did.

Deep River.—Mr. Gustavus Pratt killed a large water snake on Saturday, 18th inst., at N. B. Pratt's mill pond. Upon killing him he observed the extreme end of the tail of a fish sticking from his mouth, which upon investigation proved to be a pickerel eleven inches long. Whether the snake charmed the fish or caught him napping is unknown, but anyhow he exercised the serpent's wisdom in swallowing him head first.

New York—Tribes Hill, Aug. 21.—A black bass weighing six pounds was caught in the Mohawk to-day by Lew. Eberhard, of C. R. R. freight engine 237.

Rochester.—One of the City Assessors recently captured in Braddock's Bay eleven pickerel and one very large Oswego bass. The pickerel he gave away, reserving for his own table the bass. "But when the fish came to be prepared for cooking a wonder came to light that spoiled all hopes of dining off that fish, but taught a lesson in natural history and the survival of the fittest. A young muskrat, weighing upward of half a pound, was found in the fish's stomach, of which the creature had made a lunch before he took dinner on the spoon hook."

New Jersey—Forked River, Aug. 20.—The large blue fish are now being caught in considerable numbers, the boats coming in to-day having from 30 to 50, averaging 10 lbs. each. The weak fishing has also been very good the past week, 40 to 60 to a boat, weighing from 1 to 3 lbs. each. There have also been quite a number of sea bass and black fish caught, but no sheephead of any consequence. We look for good fishing of all kinds from this time forward.

Kiney's Ashley House, Berneget Inlet, Aug. 24.—Immense schools of bluefish, running from 10 to 14 pounds, put in an appearance on the 10th. Captain Bunnell and party, 80 bluefish; Captain T. Potter & Co., 91; Captain T. Predmore and party, 92; Captain Wm. Predmore and party, 90; T. Taylor's yacht, with party, 86. 25th, 32 yachts took on an estimate 7,000 pounds; 26th, bar rough; none out. Yacht Mystery, from Long Island, arrived with some 40 bluefish and Spanish mackerel.

PENNSYLVANIA—Bristol, Aug. 23.—Rock fish are caught from the wharves. Sturgeon roe is the best bait.

Harrisburg, Pa., Aug. 25.—Bass are tolerably plenty here-about, and could be caught readily at almost any part but for the hundreds of "outlines" stretched across the river.

The largest fish seen this year was one caught by Mr. Arnold, while fishing sixteen miles above the city, which weighed 44 pounds. It was caught from the top of Green's Dam (Clark's Ferry), and lifted out of the "re-acton" water a distance of eight feet and safely landed in his boat. The party that was fishing with Arnold took one 3 and several 2½ pounds, as well as smaller ones.

Respectfully,

BASS-O-BAZOOK.

Middletown, Pa., Aug. 23.—Bass fishing in the Susquehanna has been very poor the last week or two. On Thursday, the 9th, I caught five that weighed nine pounds and a half, the heaviest three and a half. Bass are very plenty in the river, and may be seen running the small fish any time in the day. In three days' fishing I caught eighteen the first, fourteen the second and eight the third.

W. S.

VIRGINIA—Leesburg, Aug. 21.—Bass fishing is better above and below this point than it is here. Five or six pounds to the angler has been about the average. One four-pounder was taken with minnow, and a good many over two pounds with fly and with minnow. Our small brooks begin to yield bass of good size, fish of nearly two pounds have been taken in stream-lets ten or twelve feet wide.

T. W.

FLORIDA—St. Augustine, Aug. 24.—Trout are biting now and are the principal fish sought for by anglers.

WISCONSIN—Ashland, Aug. 18.—Capt. W. W. Rich, yesterday visited Fish Creek, and returned with sixty-six beautiful trout, which aggregated twenty-five pounds.

MICHIGAN—Ann Arbor, Aug. 20.—Wat. Park returned from the North Woods last week, where he has been catching members of the finny tribe. He brought back about thirty pounds of the speckled beauties.

NATURALIST.

Albena, Mich., Aug. 21.—Charley Luce, and G. W. Hawkins went out to Long Lake fishing last Saturday, and by actual time they caught forty-three black bass, weighing in the aggregate 133 lbs.

Detroit, Mich., Aug. 25.—Mrs. Harry Crawford, of this city, while spending a few days at Orchard Lake caught, on the 23d, 82 black bass. On the 21st inst. Don. M. Dickinson and E. O. Durfee were at St. Clair Flats for a few hours sport with the finny tribe, and made a string of 20 black bass. On the 22d inst. Geo. Chandler, of Lansing, caught 32, and Geo. Wheeler and E. O. Durfee, of Detroit, 25 black bass, 14

perch. Stephen Warner and C. Flemming, in six days' fishing at the flats last week, caught 115 black bass, 20 perch and 4 pickerel. Count Von Klappenburg, of Detroit, spent three days at the same place and caught 76 black bass. A few muskeel have been caught so far this season as follows, viz.: Captain Molt, 3; H. C. Colburn, 1, and C. Wooly, 1. The one caught by Mr. Colburn weighed 23 pounds. Fishing has been very poor on the Canada side thus far this season.

ROVER.

ILLINOIS—Kankakee, Aug. 24.—Fishing for pickerel and black and speckled bass very good here this season.

Peoria, Aug. 23.—Bass, jack salmon, red eyes and other fish are caught in good numbers at the Narrows, four miles above here.

NEW BRUNSWICK—Campbellton, Aug. 20.—In company with Mr. Richard Parker, Government Supervisor of the "Tobique Road"—that extends from this place into the wilderness toward the St. John's River—I visited Parker's Lake, which is some three miles distant from this village, and the first of the many small lakes that lie along this route. We had good sport. Our fish varied from ¾ to 2½ lbs. in weight, and were beautiful specimens of the *Sabino fontinalis*, and very gummy; quite unlike their not far distant relatives the *Sabino canadensis*.

STANSTEAD.

Camp Stewart, August 18, 1877.—Our party of three arrived at fifty-five mile post, thirteen miles beyond McAdam Junction, Tuesday, at about 3 o'clock p. m. Our guide here met us, per agreement, and we at once started across the one and a half mile carry to a tributary of Kilburn Lake. Two trips were made for baggage and supplies; then two trips by canoe, some three miles, brought us about dark to camp. Since our arrival the weather has been unfavorable for sport, raining most of the time, and raising the streams too much for successful fishing. Still, we have taken a number of trout of fair size, the largest weighing 17½ ounces. A large share of the time has been spent in fitting up camp. Toward night yesterday, Superintendent Stewart, of the N. B. & C. Railroad, came into camp loaded with trout and grouse, which he killed while on his way from the 56-mile post.

CORPORAL LOT WARFIELD.

An enterprising fish dealer of Wick, Eng., has found a new use for the carrier-pigeon. Boats which fish at a large offing take the pigeons to sea, and after the catch dispatch them with the intelligence, which is received at home and suitable preparation made long before the vessels arrive.

CLERGYMEN'S FISH STORIES.—"The Pamunky reminded me of a fish story. So I told it to Brother Peterson. It ran this way: A shark came up that river. A citizen saw it, took a sturgeon harpoon, went out in a canoe, and sent the steel barb into the shark. The shark darted. The cord to the harpoon hung in the bow of the boat, and that end of the canoe started under water. The man jumped up to the stern, and leaped back over the rudder to keep the front from dipping. The shark was doing his best making (say, roughly,) fifty miles an hour. The fisherman could not go forward to un-bitch the cord, for the boat would go right under like a mole in a plowed field, but quicker. So the man had to "rare" back like he was driving a fast horse in a sulky before his sweetheart's house. His neighbors hailed him from the bank, but he hadn't time to talk. They went home and told their wives, and wondered. The boatmen on the river shouted at him as he skated by. He was going too fast to answer. The shark turned out of the Pamunky into the York. Capsized in a river three miles wide, and a mad shark close by, was an ugly thought. The man wished he had been from home the day the shark came in his house, and was "regretful" generally. The shark made a wide circle in the York, and returned up the Pamunky, and, nearly opposite the starting point, suddenly stopped, rose to the top—dead. The man was glad. Now, this is not a small story. It is of the Centennial Krupp iron calibre. I watched Brother Peterson. He didn't seem to give way under it as I liked. He took a fresh bite of tobacco and said: 'I know a bigger one.' 'Tell it.' 'I will. In Charleston harbor a fish swallowed the anchor of a schooner, put out, and dragged the vessel under.' 'Oh, said I, 'that's apocryphal. Mine was a true story. Dr. Leroy M. Lee vouches for it.' Brother Peterson chewed briskly a second or so, and said: 'I heard Bishop Wightman say mine was true.' A schooner against a canoe, a Bishop against a Presiding Elder, the odds were too great, worse than 'eight to seven,' it was no use, 'to attempt Giharat with a pocket pistol.' As at Appomattox, 'yielding to superior numbers and overwhelming resources,' I quit."—Christian Advocate, Richmond, Va.

SPLIT BAMBOO RODS.

To Our Customers and the Public: In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,

Manufacturers, 65 Fulton Street, N. Y.

Rational Pastimes.

CRICKET.

COLUMBIA VS. STATEN ISLAND.—Staten Island, Aug. 23.—A match between the second eleven of the Staten Island Club and the Columbias of Hoboken resulted in the following score:

Table with columns for First Inning and Second Inning, listing players and runs scored. Total runs for both teams are 55.

FALL OF WICKETS.

Table showing the fall of wickets for both teams, listing the number of runs scored when each wicket fell.

COLUMBIA.

Table with columns for First Inning and Second Inning, listing player names and scores.

FALL OF WICKETS.

Table showing runs and wickets for First and Second Innings.

OTTAWA VS. ONONDAGA—Syracuse, N. Y., Aug. 21 and 22.—The match between the Syracuse and the Canada clubs, which has been long talked of in cricket circles, resulted in a victory for the famous Ottawa players.

Table showing batting and bowling statistics for Ottawa and Onondaga.

In their second innings the Onondagas scored 90 runs; the Ottawas winning the game by making the 17 runs with the loss of two wickets.

KINGSTON VS. OSWEGO—Oswego, Aug. 23.—The second of the series of games between these clubs resulted in favor of the Dominion players. The first match was won by the Oswego Club. The final game is to be played next month.

Table showing batting and bowling statistics for Kingston and Oswego.

Table showing batting and bowling statistics for Kingston.

THE JUNIOR ELEVENS VS. THE ST. GEORGE'S AND STATEN ISLAND CLUBS—Hoboken, Aug. 28.—Match game between the junior elevens of the St. George Cricket Club and the Staten Island Cricket Club.

Table showing batting and bowling statistics for St. George's and Staten Island.

Table showing batting and bowling statistics for Staten Island.

St. George's, Hoboken, N. J., Aug. 23 and 24.—A match game between the Bachlors and Benedicts resulted in the following scores: Single—First inning, 77; second inning, 14. Married—First inning, 24; second inning, 70.

SCOTTISH-AMERICAN CLUB.—The third of a series of the handicap games of this club was held on their grounds at 829 West Fifty-fourth street, last Saturday. Summary:

Two-Hundred-and-Twenty Yards Run.—The second heat, four contestants, won by T. H. Smith in 26 3/8; M. E. More, second, in 26 1/2. The first heat, five contestants, won by H. B. Wilson in 27 3/8; J. Robertson, second. Third heat won by H. H. Moritz, in 28 3/8; F. E. Leonardson, second. In the final heat, Wilson was handicapped ten yards by Smith and Moritz. Smith won in 26 3/8, Moritz, second. Prize, a silver medal.

NEWPORT.—The Polo Club having entertained the citizens and summer sojourners of this city with an exhibition of lacrosse, played by Canadian Indians, on Aug. 27, have arranged for pallone playing this week. Under their management an athletic meeting of amateurs is set down for Sep. 6th. The games are to be open to members of the N. Y. Athletic Club, all college athletic clubs and the residents of Newport.

O'Brien, the pedestrian who recently failed in his attempt to walk 600 miles in six days, having completed in that time 420 miles, will repeat the attempt next month.

NEW JERSEY—Long Branch, Aug. 23.—The swimming match between G. H. Wade and James Cunningham was won by Wade. He swam the two and one-fourth miles in forty minutes, and came in on the finish fifteen yards in advance of Cunningham. Wade has been challenged by Coyle of Philadelphia.

SWIMMING AT HARLEM.—The swimming contest under the auspices of the New York Athletic Club, last Saturday, was participated in by eleven contestants: William Childs, Nautilus Boat Club; R. Weissborn, Jersey City Heights; H. W. Peckwell, Dauntless Boat Club; C. M. Shaw, Yonkers Athletic Club; T. E. Kitching, New York; James Fraser, New York Athletic Club; M. Ryan, New York; W. E. Smith, New York; T. B. Bates, Harlem Athletic Club; O. G. Bates, Harlem; and S. Sinclair, a deaf mute from the deaf and dumb institution at Morrisania. The course was from Macomb's Dam to Gates' lumber dock, one mile only. Four of the contestants came in at the finish: Weissborn, 45m. 44 1/2 s.; Kitching, 46m. 25s.; Fraser, 49m. 11 1/2 s. Shaw was fourth.

Answers to Correspondents.

No Notice Taken of Anonymous Communications. G. H. E., Rochester.—When does the brook trout season close in Canada? Ans.—Sept. 15. J. G. S., Boston.—In what states will I find good partridge and deer hunting not too far away, in September and October? Ans. The Adirondacks, northern New Hampshire and Maine will furnish plenty of sport. A. H. S., Meshoppen, Pa.—Please inform me what kind of bait to use for black bass for month of September and October? Ans. Worms, minnows, dobson, etc. R. M. L., Scranton, Pa.—Where, within reasonable distance can I find good general shooting and fishing, with good accommodation for self and family at reasonable rates? Ans. Lackawanna, Pa. Address J. A. Williamson. Cohasset, Taunton.—Are there any rules for shooting at glass balls if so, by whom are they published, and what is the price? Ans. Yes. A. H. Bogartus. Can have a set of rules and score-book at this office for twenty cents. D. C. P., Saratoga Springs, N. Y.—To have your gun choked, send it to Shaffer of Boston, Clark, & Snider of Baltimore, or any of the gun-makers advertised in our columns. J. B. E., Williamsport, Pa.—What is the dobson bait used for bass fishing? Ans. An imitation of the helgrammite, or dobson. See advertisement. BLACK GEORGE, Mobile, Ala.—Is it not unusual for the Salmo fontinalis to be caught in Grand Traverse Bay? Ans. Yes, though the fact of their being found there is not particularly strange. R. WOOD, Syracuse, N. Y.—Is there a case on record of a full-blooded Newfoundland dog having the hydrophobia? Ans. Yes, several. No canines are free from the disease. BELMONT, Belleaire, Ohio.—Please explain in full what the Dobson bait for black bass is? It is new to us out here. Ans. See our advertisement columns. Also page 44 of FOREST AND STREAM, Aug. 2, 1871. F. M., Bergen Point, N. J.—Where, within twenty-five miles of New York, on New Jersey Central Railroad, can good rabbit shooting be found about Nov. 1? Ans. Monmouth County, back of Keyport or Holmdel. C. A. R., Clarence, N. Y.—Please advise me of some good place in Canada, near the line, where I can find good fall duck shooting rather early in the season? Ans. St. Clair Flats, twelve hours from Buffalo by rail and boat. Go by way of Detroit or Port Huron. C. C., New York.—1. Can a Flobert rifle shoot a .22 cartridge? 2. Where can I obtain arrows and arrow heads? Ans. 1. By taking a Flobert rifle to a gunsmith it may be made to shoot a .22 cartridge. 2. At J. E. Marsters, 125 Nassau street, or of Peck & Snyder, 124 Nassau street. RAYEN, Roedale, Ky.—I. Will you please tell me the charges on a barrel of Bogardus' glass balls by through freight from New York to Kansas City, Mo? 2. The nearest point to get glass balls? 3. Is Mr. Hallock coming out to Kansas on his trip? Ans. 1. Apply to your local freight agent. 2. Can be ordered in St. Louis. 3. No. TRAPPER, Greenwood, Ill.—I would like to be informed of a good place for trapping and hunting in Wisconsin or Michigan, or any place within four hundred miles of Chicago, where I could make \$50 or \$75 per month above expenses? Ans. On the Sanble or Manistee, in Michigan, or along the line of Wisconsin Central Railroad. Your success will depend entirely upon your abilities. S. S. J., Baltimore, Md.—Please inform me if there is a work which gives full instructions and positions in long range rifle shooting? If so, by whom published, at what price, and where to be obtained? Ans. Yes, "Long Range Rifle Shooting," by the Rifle Editor of FOREST AND STREAM, just published by us; price 50 cents.

CONSTANT READER, Syracuse, N. Y.—Ans. Watch the time or, and it increases a size, report, at the same time stating its anatomical situation as closely as possible. The probabilities are that it will dissipate of itself with age.

W. F. R., Cincinnati.—Will you inform me of the changes in the game law of Kentucky? Ans. The close seasons are: Deer, March 1 to Sept. 1; squirrels, 1st of February to 15th of June; rabbits, 1st of February to 20th of October; wild fowl from the 1st of May until the 1st of September; turkeys, 1st of February to 1st of September woodcock, 1st of February to 15th of August; quail or partridges, ruffed grouse, etc., 1st of February to 20th of October. Insectivorous birds are protected the year throughout.

SOUTH SHORE, Boston.—My setter dog (3 years old) commenced yesterday to evince an almost constant desire to urinate. He would not only do so in the manner common to dogs, but at times would squat down like a very young puppy, and pass a large quantity of urine, and it seemed to me as if he got rid of more than usual in that position. He is in pretty good condition, if anything, a little too fat, and seems otherwise to be all right. I thought he breathed pretty fast and a little "jerky" at times. Ans. Give him a pearl of Encyrius. (Fougers's) every 3 hours until difficulty ceases. Low diet.

H. E. M., Boston.—1. How heavy charge, and what size shot, would you advise for partridge shooting (muzzle-loader, gauge 14)? 2. The barrels of my gun are thirty inches; by cutting off two or three inches will it effect the shooting, and how? Shoots close now. 3. What is the difference between choke and cylinder bore? Ans. 1. 2 1/2 to 3 drs. powder and 1 ounce of shot No. 3. 2. The barrels of your gun are none too long; let them alone unless you desire to ruin it. 3. A choke-bore is smaller at the muzzle than at the breech.

T. S. D., Stannton, Va.—I send you the foot of a bird that was killed in this vicinity yesterday evening. The bird measures 9 1/2 inches from tip to tip of wing, 9 inches from tip of beak to tip of tail, length of bill, 1 1/2 inches; plumage, slate colored above, snow white below, with a white ring (not well defined) around the neck; bill, black. We have never seen anything like this here before, and would like you tell us what it is? The party killed several of them; they seem to be abundant. Ans. Your bird is the black tern (Hydrochelidon, fuscipes).

C. St. G. S., Bonneau's, S. C.—Can a Remington breech-loading shotgun, weight 8 pounds, No. 12, be choke-bored? Will it make any difference in the safety? I kill a fair amount of game with it, but in shooting at a box 2 ft. x 2 ft., 40 yards distance, 3/4 drachms powder 1 1/2 oz. No. 6 shot, can only, during many trials, get a pattern of 24 pellets. Would you advise me to have it choked in both barrels or one for field shooting? Ans. We do not consider that it improves any cylinder bore gun to change it to a choke. If a choke is desired, exchange the gun for a new one already choked.

A. G. J., Williamsport, Pa.—1. In shooting glass balls is it best to shoot the ball before or after it begins to descend? 2. What size shot is best for shooting pigeons from a trap 21 yards rise, with Parker breech-loader, 12 gauge, 8 lbs. 10 oz. weight? 3. What would be proper load for same? 4. I have a breech-loading gun which shoots very close—too close for cover shooting. Which would be best, have it bored to scatter, or get an extra set of barrels, or use it as it is? Ans. 1. Shoot them as you can best. 2. No. 8 shot, 3. 1 1/2 ounces. 4. Just as you can afford.

J. A. B., Berwick, Me.—Will you please prescribe for my setter that has the mange. Lie is four years old, has been fed on oat meal, bread and milk, table scraps, etc. His eyes look bright, but at night a thick yellow matter gathers in them. Tongue and lips look normal only perhaps a little thicker. Body is hot and dry with bare spots on points of elbows outside of forelegs, and which are sore. He smells very loud; hair nearly all off tail; seems to be thirsty all the time; drinks an enormous amount of water, which runs away from him nearly as fast as he drinks it. Testicles hang low all the time, one has been swollen to three times its natural size, but it is all right now. He pants a great deal. Seems to itch intensely; wants to scratch with both hind feet and bite himself at same time. His flanks are drawn in some, breathing rather labored at 125 respiration; condition of bowels variable. Appetite variable. Water colorless. I am giving Donovan's Solution three times a day, tinct. of iron once a day and wash with Caswell & Hazard's Juniper Tar Soap and black wash. He has been chained up until lately, has his liberty now. Ans. Give plenty of exercise and light diet. See that black wash is made as per prescription 37, Hallock's "Gazetteer." You do not describe the form of the eruption so that we can tell what it is. You will find particulars in "Gazetteer." Drop the tinct. of iron; it interferes with the Donovan. Increase doses of Donovan's as per prescription 35 and give him also a dose of calomel as per prescription 23, and follow with the second prescription of No. 10, leaving out the calomel and podophyllin. Give morning and evening.

SETTER, Baltimore.—My setter has several sore places on his hind quarters and one under his tail close to the root, the latter being the first to appear. Yesterday they came out on the outside of his legs, one or two near the hip bone on each leg, and about four on each side. They first appeared making the skin look pink through the hair, then they became raised like the bite of a mosquito and as large as a ten-cent piece. They then have a formation of matter on the surface not deep, but they do not seem to hurt him much and he licks them at times, but not as if they were much trouble to him. I washed him with strong dark carbolic soap and he seems better; two were nearly dry. If no more break out he will soon be over these. Ans. Put the animal on low diet and wash each day with Juniper Tar Soap, and also apply twice or three times each day the following wash: Calomel, one dr.; syrup of acacia and glycerine, each five drs. Fluid extract of conium (squibb's) five drs. Mix in the order given in a mortar, and when thoroughly incorporated add liquor calcis, q. s. to make one pint, meantime stirring slowly; shake well before using and apply freely. Also give eight drops of Donovan's Solution in water, three times a day, taking care that it is not given on an empty stomach. See that your dog has a clean bed and that it is frequently changed. Do not allow him to lie on the ground under the house, as the damp exhalations only aggravate the malady.

R. R. B., Galveston, Texas.—I have a pointer pup four months old which has been ailing for the past two weeks. I gave it santonine, 12 grains; quinine, 6 grains; leptandrin, 3 grains, followed with a dose of castor oil, as per directions in your paper, but no worms were passed. Their food has been mostly boiled beef cut fine, and the broth in which it was boiled. The eye is bright and natural; coat smooth and glossy; lips and tongue pale pink; breathing 50 respirations per minute; natural; appetite variable; temperature of the body, 102 deg. Fahr.; range of house and large yard; plenty of grass; condition of body poor on the same feed that keeps the other pup fat. At times she appears in pain, whining and biting at her hind quarters which are weak and sore to touch. Bowels slightly constive, water clear and free. Disposition affectionate and extremely jealous; exceedingly ambitious and tries to please. If you can inform me what is the matter with her from this imperfect sketch you will greatly oblige me. Ans. Probably non-assimilation of food. Give one-quarter teaspoonful of Caswell, Hazard & Co.'s Elix. Calasaya three times a day. Also three times a day four grains of the following powder: Rhubarb powdered, 6 dr.; white Castile soap powdered, 2 drs.; leptandrin and powdered snuffs, each 25 grs. Do not give at the same time with the Elixir.



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INCUCLATION IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY:

PUBLISHED BY

Forest and Stream Publishing Company.

No. 111 (old No. 103) FULTON STREET, NEW YORK. [Post Office Box 2832.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonparel type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* \* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, AUGUST 30, 1877.

To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts. Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

CALENDAR OF EVENTS FOR THE COMING WEEK.

Friday, Aug. 31.—Trotting: Cambridge, Ill.; Parker City, Pa.; Hartford, Conn.; Oskaloosa, Ia.; Macomb, Ill.; Hudson, Mich. Base ball: Hartford vs Louisville, at Brooklyn; Chicago vs Star, at Syracuse; Indianapolis vs Chelsea, at Brooklyn, at Paterson; Live Oak vs Manchester, at Lynn; Jefferson vs Star of Greenwich, at Brooklyn, E. D. Creedmoor; Infantry; 2d Brig, 1st Div. Regatta of the Newburg Rowing Association.

Saturday, Sep. 1.—Trotting: Macomb and Hudson, as above. Base ball: Cincinnati vs Boston, at Boston; Louisville vs Hartford, at Brooklyn; Indianapolis vs Chelsea, at Brooklyn, at Paterson; Star of Greenville vs Chelsea, at Greenville, J. C.

Monday, Sep. 3.—Base ball: Cincinnati vs Hartford, at Brooklyn; Indianapolis vs Auburn, at Auburn; Live Oak vs Rhode Island, at Providence; Dansville vs Rochester, at Dansville, N. Y. Bench Show of dogs, Music Hall, Boston.

Tuesday, Sep. 4.—Trotting: St Petersburg, Pa.; Quincy, Ill.; Mystic Park, Boston; Quincy, Ill.; Amenia, N. Y. Base ball: St Louis vs Boston, at Boston; Chicago vs Hartford, at Brooklyn. Iowa Field Trials, Hampton, Ia. Dog Show, as above.

Wednesday, Sep. 5.—Trotting as above, and at Davenport, Ia. Base ball: Live Oaks vs St Louis, at Lynn. Dog Show as above. Miniature Yacht Regatta, Gowanus Bay.

Thursday, Sep. 6.—Trotting as above. Base ball: St Louis vs Boston; Chicago vs Hartford, at Brooklyn.

SECOND REGIMENT, CONNECTICUT NATIONAL GUARD.—This, the crack regiment of the "Wooden Nutmeg State," began its annual encampment at Gregory's Point, South Norwalk, Monday, August 27th. We are in receipt of an invitation to be present, which we shall avail ourselves of. Col. Smith has our hearty thanks for this and other favors previously bestowed.—Ed.

—We had the pleasure of a call yesterday from Mr. W. H. Roberts, of New Orleans, Editor of the Times, who is on his return home from Newport and Saratoga with the expectation of finding a cooler climate. Mr. Roberts is a genial Southern gentleman and a thorough and enthusiastic sportsman. We acknowledge our indebtedness to him for the many courtesies extended, and trust to meet him again, when his visit may be more extended.

THE INTERNATIONAL RIFLE MATCH.

THE arrival of the British Team will give the American marksmen an opportunity to judge of what sort of stuff their competitors are made, who they are, and what may be expected of them; and the first impression which strikes a critical observer of the visitors and their manner of procedure is, that they have come to win. They are not the junketing, speech-making, merry-witted friends whom we have had with us in former years, nor do they come boasting of what great feats they can and will show us. They simply say, "We will do our best;" and, as they represent the pick of a great nation, where for seventeen years or more the finer grades of target practice have been most assiduously cultivated, it is but fair to suppose that their skill is of no mean order, as their experience certainly is not. In place of enjoying the pleasures of town life, they at once proceed to isolate themselves from all those seductive influences which might tend to interfere with that perfect state of eye and head and hand; in short, that general healthfulness without which rifle shooting becomes the merest matter of chance. The greatest pleasure, the most exquisite enjoyment which our visitors can experience, is not to be met in the rounds of excursions, fetes, receptions, and such, but would be realized in a leading score at the conclusion of the second day's work in the great rifle match. They do not forget that their errand across the seas is to shoot, and if possible win in a great battle before the butts. This single purpose is kept steadily in view, and every move of that veteran shot and thoroughly posted marksman, Sir Henry Halford, is leading to one goal—victory.

For our American marksmen, and particularly those who are especially charged with the successful carrying out of the International Match, these facts and indications are suggestive. They mean that the very best endeavor only is to be brought forward if the honors of victory are once more to rest with our home teams. If, after the series of successes which were ours in the days of our infancy as long-range shooters, a disastrous second place should now be our lot, it will need a deal of explanation to show that it was not the result of some militating cause which might have been removed had sufficient care and forethought been exercised. When one of America's crack shots, if not the crack shot of America, declares his ability to pick a second team, able to whip the present selected champions, it certainly is that the field of choice is broad enough to enable a proper and discriminative selection to be made. We are not now in the position in which we were less than half a dozen years ago, when it was with difficulty that any team at all could be secured; now we may sort and reject, may test and try, and hold fast to that which is good. If the eight men, who are nominally at this writing the American Team of 1877, think, or a majority of them think, that their effectiveness as the exponents of American marksmanship can be added to by a change of personnel, it should be made without scruple, and those who step down and out should be actuated by a sufficiency of patriotism, of sportsmanlike qualities, to acknowledge that others are better than they, and rejoice with us all, and the victory they have hastened by the opportunity afforded others of doing well.

The coming match, we doubt not, so far as the riflemen and rifle managers are concerned, will be fought out in a full, open and above-board manner. It is one of the peculiarities of the sport of the rifle range, like that of the field and stream, that its tendencies are elevating. It demands a healthy body and necessarily induces a vigorous mental and moral growth. There is no royal road to big scores, and one who would enjoy the satisfaction of heading the list in a long-range match must be a genius under the definition of a prominent writer, who defines: "Genius is only the infinite capacity of taking trouble." Sir Henry Halford is endowed with a fair portion of this capacity, and he is certainly taking trouble to keep his men in good trim and form, that they in turn may be able to trouble themselves to good account with the intricacies of Creedmoor winds.

The American riflemen East and West, North and South, will be happy to welcome their friends and antagonists from across the sea. The coming battle is the more important as it is fought under those modified conditions respecting choice of team which England sought to impose upon the donors of the Centennial trophy at the match of 1876. To defeat this team is to gain a victory over what England and the National Rifle Association have united in acknowledging as the strongest team the United Kingdom can produce. Some are fearful for the hurtful effects of such a success in keeping the riflemen of other nations away from our champions and the wind-up of international matches; but we misjudge the character and spirit of the riflemen of Ireland and of Scotland, and of Sir Henry and his men, if we think of them as sitting tamely down under defeat. Being fairly overcome, it will be their policy—if they are the true sportsmen we take them—to acquire the method of their conquerors, and by sheer hard work woo victory under their banners.

In any event, the general public may rest assured that in witnessing this match they will see a fine display of nerve, of ripe judgment gniding trained muscles, and as they shout plaudits to the victors, be assured that they are giving honor to whom honor is due.

THAT HUSBAND OF MINE, published by Lee & Shepard, of Boston, is one of the most interesting little sketches it has been our fortune to peruse. It is almost a necessity in the household circle which possesses Helen's Babies. We think we have met Charlie before, and Elsa,—well, we dare not say where her prototype is to be found.

ONE of the most important desiderata connected with the life of one who tries to study nature is the faculty of noticing little things which escape the observation of ordinary people. This is, to a great extent, the secret of the success of many naturalists and scientific men, and is, in fact, one key which opens the doors of Fauna to many of our eminent men in whatever channel their talents run. But it is more especially an essential to the successful study of natural history. Audubon was remarkable in this respect, as well as in regard to his memory and eyesight. A story is told of how he once, when with a friend on one of his favorite tramps through the woods, called the attention of his companion to a bird a great way off, and scarcely visible to the eye of his friend, but which Audubon immediately recognized by its movements and coloring, giving the genus and species, and marveling at his friend's lack of vision. This was, however, with Audubon a natural endowment, but his fame was especially increased by the accurate and detailed accounts he gave of the habits of the birds he figures so grandly.

There are countless little incidents which happen to us every day, most of which pass unnoticed, yet many of them, if followed up even in thought, might disclose useful and pleasing subjects for study. Transfer this to the woods, and there ceases to be a limit to the important conclusions to which a little thing may lead, if carefully observed and followed up. It is this habit of close observation that decides the relations of cause to effect, and aids us in understanding the most intricate, as well as the most simple points in the Natural Sciences.

We invariably find that he is the most successful hunter who understands what effect the various states of the weather have upon the game he pursues; who understands where the ducks or geese will feed when the wind is in the north; what chances of success present themselves when a stiff, westerly breeze is blowing, and so forth. So must he who desires to study Natural History cultivate habits of careful observation of minute facts.

An example occurs to us in a little incident of our own experience. We were one day last spring on an ornithological expedition. A pair of crows attracted our notice on a tree near an incipient nest. We had seated ourselves to rest, and while listlessly watching their actions, their movements soon arrested our closer attention, and we then noticed, for the first time, that they used green twigs, as well as the dead ones, in the construction of their nest, and to secure the former would wrench the smaller branches from the tree-tops, using their strong beak for the purpose. On the same day, while watching the movements of a fish-hawk repairing her nest for the coming season, we observed that frequently she would sweep to the ground, and skimming slowly, rise again, and fly directly to the nest. Upon continued and close observation she was seen to seize, each time she reached the ground, a sod or bunch of grass, and without stopping her flight, bear the object away. One of these observations was accidental, the other the result of our first experience with the crows.

To arrive at definite conclusions we must have facts, and facts which are drawn from careless or cursory observations are, to say the least, unreliable. Another point which should be impressed upon the young observer is the importance of putting on paper all data as soon as possible after their acquisition.

We are in almost daily receipt of communications containing questions about birds and animals whose descriptions are so meager that it is sometimes difficult to tell whether the bird is a blue-jay or a foolish guillemot; whether the animal be muskrat or silver-fox. Amateur naturalists or persons who take sufficient interest in natural history to send questions concerning their observations should make their inquiries more specific. An indispensable thing is a pencil and note-book. In this connection we refer the reader to a pleasing communication in another column, a translation from Pliny, which can be read now so many hundred years after its author's life with great interest and profit. Let observations be recorded with all possible detail of time, place, and so on; these copied in ink as soon as convenient.

Aside from their practical value, one who has never tried it can scarcely realize how the interest derived in after years from looking back to past enjoyments is enhanced by having these data, kernels of pleasure which were garnered long ago, and which bring more forcibly to the memory the dimmed and dimming past.

CHANGES AT THE NEW YORK AQUARIUM.—We learn with regret that Mr. W. C. Coup, the founder and deservedly popular manager of the Aquarium, has sold his interest in this institution, and has retired from its management. His partner, Mr. Reiche, having purchased his interest, is now the sole proprietor.

Students, naturalists and the public generally will particularly regret that the new management has abolished the department of fish culture formerly so ably presided over by Mr. Fred Mather, and that instead of having an expert to illustrate, explain and experiment in this important branch, eggs will have to take their chances and gravid fish will struggle in inexperienced hands. Besides the interest attached to this department, it was made of practical use in stocking public waters, having distributed nearly 100,000 salmon to the waters of New Jersey, Long Island, Greenwood Lake and the Adirondacks, besides the interesting experiments with skates, squid and other eggs.

Mr. R. J. Edgar, the well-known treasurer, also retires.

**HOBART PACHA.**—A correspondent asks "Who is Hobart Pacha, whose name appears so frequently in the accounts of the present affairs between Turkey and Russia? Is he an Englishman, as some of the papers claim?" English he most certainly is, being the third son of the Earl of Buckinghamshire. His name in full is Augustus Charles Hobart, and he was born April 1, 1823, and early displayed that energy of character and strength of purpose which led him to adopt the navy as a profession, a career in which he rapidly advanced, so that he was a lieutenant in 1851, and afterward a captain in H. B. M. service. In 1848 he married the younger sister of Sir Coquign Grant, a lady well qualified to support him in the arduous duties he has since undertaken in the Ottoman service, which he entered in 1867, when he replaced Muschav Pacha, who was no other than Captain Slade, of the Royal Marine, as Vice-Admiral. He is now full Admiral, a rank gained by his successful operations against Crete, where he established a blockade that ended the hopes of the insurgents. It was Hobart Pacha who, under the name of Captain Robert, eighteen times successfully ran the blockade at Wilmington, N. C., during the late civil war, in the steamer Dawn. In 1864 he published an account of his blockade running adventures in a little book entitled "Never Caught," which is very interesting. At this time he held the rank of Post Captain R. N.

**WOODRUFF EXPEDITION.**—The arrangements of the Woodruff Scientific Expedition around the world are now completed. The steamer Ontario, with a full complement of officers, under the command of Capt. John W. Philip, U. S. N., and upward of four hundred passengers, will start from New York on the 1st of October. Among the more noted members of the expedition are such scientists as Burt G. Wilder, M. D., Professor of Comparative Anatomy in Cornell University; Albert Schaffler, LL. D., Professor of Modern Languages in the University of Berne; C. Hart Merriam, Yale College. The expedition will sail directly to St. Thomas and the Barbadoes, remaining a few days for botanical, geological, and other scientific explorations. The next stoppage is to be at the Island of Marajo, in the mouth of the Amazon; then at Rio de Janeiro. The Straits of Magellan will be reached in December, and time will be allowed for exploring the coast. Valparaiso will be reached in February, 1875, and Fiji will be reached on the first of April; after a week's delay the journey to Australia will be resumed by way of the Samoan Islands, to China and Japan. Two months will be given to the exploration of Borneo. It is intended to reach Calcutta on the 20th of February, 1879. Thence the expedition will be continued to Ceylon, Bombay, Aden, Mecca, Alexandria, the Mediterranean, Lisbon, Plymouth, England, and then to New York.

**A SPORTSMAN'S PIPE.**—Kaldenberg, 117 Fulton street, is now offering a genuine meerschaum pipe, designed especially to meet the wants of sportsmen, at the extremely low price of \$1.50. We have one, and it is comfort unsurpassed.—Ed.]

**THE LOCUST PLAGUE.**—Rand & McNally, of Boston, have issued a handsome little work of 250 pages under this title, containing many illustrations, etc. It is more particularly a treatise on the Rocky Mountain locust, or so-called grasshopper, as it occurs east of the Rocky Mountains. The characters of the species, chronological history, native home, geographical range, natural history, habits, etc., are all considered, with practical recommendations for its destruction. The author is Prof. Chas. Riley, Chief of the U. S. Entomological Commission.

**NOTICE TO SPORTSMEN.**—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining, to imitate the genuine article) without letting our customers know just what they are getting.

P. O. Box, 1,294.—[Adv. ABBEY & IMBRIE, 48 Maiden Lane.

**GAME PROTECTION.**

**NEW YORK.**—Herkimer sportsmen are prosecuting pot hunters who have been detected in killing woodcock out of season.

**NEW JERSEY.**—The West Jersey Grouse Association are doing good work with their tug. Several violators of the law have recently been brought to punishment through the efforts of this wide-awake body.

**OHIO QUAIL IN 1877.**—It seems to be the opinion of some excellent gentlemen that Bob White can be killed this year in Ohio on Oct. 1, and of others that Nov. 1 is the date. Even Barrister Logan, in his note to Colonel Skinner, fails for once to indicate with his usual clearness exactly when the autumn shooting, in the case of this estimable bird, may commence. "About" such a time, or "next November," might prove disappointing to intending visitors. The amended act, passed 11th April, 1876, provides that, for 1877, no one shall kill a quail "until the 15th day of November, 1877." Succeeding years, Nov. 1 is understood to be the date. Penalty, a fine of \$2 to \$20, or thirty days' imprisonment, or both.

Our summer in the "Paris of America" has not been of the torrid type that we have often had, and the nights are now quite suggestive of autumn. R. F. DUCAIGNE, Cincinnati, Aug. 24, 1877.

**MASSACHUSETTS.**—Salem, Aug. 25.—I read with much interest Mr. Lathrop's letter in last issue, and certainly think, and earnestly hope, it always will be "much easier to write a book" than to get a game law, such as some of the shooting men of Massachusetts desire. The best proof of virtue is easily seen by comparing our fish laws and their backers with the mud-died bird laws as they stand. I think the fishermen of Massachusetts could have framed a game law themselves. We should have one that would work as well on woodcock, as theirs does on trout, and I am not a fisherman either.

TEAL.

BOSTON, Aug. 25, 1877.

EDITOR FOREST AND STREAM:

I notice in your issue of the 23d a communication from E. H. Lathrop, Esq., of Springfield, taking exceptions to my previous letters published in the Boston papers and your own, as to the efficiency of the present game law in our State. Mr. L. says: "He is aware that the law is not perfect, but he don't think that even the Massachusetts Anglers Association could have got a better one last winter." I happen to be one of those who think they could, or, to say the least, their previous acts and petitions to the Legislature show that they would not have been content without a positive close time law, no matter where killed or taken. A poor law is worse than none at all, as was fully illustrated to us the first two years of our existence, but when the Legislature granted us a positive close time for the trout and smelt laws we were enabled to enforce them effectually, and the same will apply to the lobster law. We even went so far as to say to the committee of Fisheries of 1876 that unless we could have the clause "Killed in this Commonwealth" stricken out of the trout law, we did not wish any law at all. What was the result? The committee gave us leave to withdraw, but we fought for the new substitute bill persistently, making possession positive evidence to convict, and carried the new law handsomely through both branches of the Legislature, thereby not only observing comity to other States but also protecting our own. Undoubtedly Mr. Lathrop would like to defend the present law, which I still contend is not only good for nothing but even worse than nothing, because he, as I have reason to believe, was the one who drafted the present bill; but his "astute legal acumen" did not in the present case do much good, and perhaps it would have been better for the gentleman instead of trying to undervalue the "large advice and accumulated wisdom of the Anglers Association" to have joined us, and by his aid, counsel and co-operation have done what he could toward a proper close time law, somewhat conforming to States on our borders, instead of trying with bombast to belittle the hotel keepers and sportsmen of Boston by his opinion of their "notorious acts," when he well knows, or ought to know, that the close time is off after the 4th of July in Rhode Island, Pennsylvania, New Jersey and New Hampshire; and after the 1st of August in New York and Vermont. The Bruswick, Parker's, or Whipple & Hall, (formerly Young's), are not obliged to wait until the 1st of September, which our Massachusetts law would have them, in order to obtain woodcock for their guests. They are obtained here by the barrel from the above States, and the gentlemen who purchase and furnish them probably feel that they are violating no law or justice in so doing. As to Mr. Lathrop's offer to "present" me twenty-five dollars apiece for every woodcock I can find in his county dead out of season," I have other business to attend to, and am very happy to know "that he keeps his end of the State right," although I am afraid he may be mistaken. But candidly, Brother Lathrop, try again, and get a good law that can be enforced without being obliged to get "good counsel to help us convict" (and you know these legal gentlemen present so many different views as to the legality of certain acts), so that we may help you, instead of trying to hold up our association to ridicule by talking about our "accumulated wisdom and what the people and the Legislature expected when we were granted our charter," etc., etc. I feel warranted in saying that the acts of the Massachusetts Fish and Game Protective Association, and of the old Massachusetts Anglers Association, up to the present time, will be indorsed by all who know of them. Now, Mr. Editor, in closing, let me say I should prefer Mr. Hallock's opinion on the legality of any fish or game law to Mr. Lathrop's, believing that with his large experience he would be the most correct. I had the honor of sitting in the Massachusetts Legislature of 1868, with Mr. L., and respect highly his talents, but when an ex-Judge of our Supreme Court with other distinguished legal minds of our State have said that our present law is "inoperative," let us cease all arguments and go to work to have a close time in conformity with neighboring States. I presume Mr. Hallock will be able to answer that portion of Mr. L.'s letter which refers personally to him.

JOHN P. ORDWAY.

**The Rifle.**

**THE ARRIVAL OF THE BRITISH TEAM.**—The arrival of the British Team by the City of Richmond on Saturday last brings the match of 1877 prominently before the public, and for a time we may expect to hear everybody talking rifle and rifle doings with more or less display of knowledge on the subject. The visitors on their arrival were cordially greeted by their American friends and soon to be antagonists. The Reception Committee of the N. R. A. had secured the stamboat N. K. Hopkins on which to carry the receptionists down the bay, and at noon the boat, with a large party of gentlemen on board, left the battery on its errand of welcome.

Among the party were: N. P. Stanton, President of the National Rifle Association; George S. Schermerhorn, Jr., its Secretary; Gen. D. D. Wylie, Major Henry Fulton, Col. George D. Scott, Capt. Jos. D. Story, Gen. Thos. S. Dakin, Captain of the American Team of 1877; Gen. F. Vilmar, Col. W. E. Van Wyck, Gen. K. Knox, Col. R. C. Ripley, Col. R. C. Ward, Herman C. Poppenhusen, Gen. N. Gano Dunn, Alderman Cole, Adjutant M. B. Farr, Capt. Chas. S. Burns, Adjutant Wm. H. Murphy, Dr. G. A. Stockwell, Capt. Robbins, L. M. Ballard, G. W. Wingate, and Col. C. B. Mitchell; and Capt. James Buckley, Dudley Selph, R. G. Eyrich, Col. John Glynn, Jr.; John K. Renaud, and E. T. Manning, of the New Orleans Team. A band was taken on at Governor's Island. The Inman steamer City of Richmond had already been reported from the Highlands, and all haste was made through the Narrows. The Hopkins was decked out in flags of all sorts and styles, showing prominently the Stars and Stripes and the Union Jack. As the boats neared one another in the Lower Bay the flags of

the two nations were dipped from the little American steamboat and the Atlantic liner in reciprocal compliment, while a stout little howitzer on the forward main deck of the Hopkins blazed away, deafening everybody with a many-rounded salute. The riflemen were soon shouting recognitions across from boat to boat. Lieut. George Fenton, with his great, brawny, Irish figure, and ruddy, good-natured face, was the first to be identified among the long line of faces looking over the bulwarks. Then Milner upon the main bridge was caught sight of, and as he had not been announced by telegraph his appearance caused some surprise, and certainly did not reassure the American marksmen in any anticipations of an easy victory. A moment later, as the Governor's Island Band was blowing out "God Save the Queen," Sir Henry Halford sprang upon the bulwarks and clinging to the shrouds was seen waving his hat and exchanging nods of recognition with the American party, many of whom he had entertained during their trip to British soil in 1875. One after another of the marksmen were picked out among the Richmond's passengers, and cheer after cheer and tigers were yelled over the water, while the Hopkins' steam whistle screeched its worst. At last a gang-plank was thrown out from boat to boat, and Capt. Casey, Chairman of the Reception Committee, stepped upon the Richmond's deck, and shaking hands heartily with Sir Henry Halford, extended to him the first welcome, and invited him to step upon the Hopkins to meet the President of the National Rifle Association and the other gentlemen of the American party. Then as one after another of the British team stepped along the gang-plank rounds of cheers were given, the three ladies of the party getting the lion's share as they tripped fearlessly along the rather slender passageway. Of course there was some making, but luckily little of it, Judge Stanton beginning the infliction and saying:

"SIR HENRY HALFORD, CAPTAIN OF THE RIFLE TEAM OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND: It is with great pleasure that I, on behalf of the National Rifle Association of America, extend to you and to those accompanying you a hearty welcome. Though you and your associates may be surrounded at this time by strange faces, yet the interest that you personally have shown in promoting greater excellence in rifle shooting has made the name of Sir Henry Halford as well-known to the friends of Creedmoor on this side the Atlantic as it is to those of your own Wimbledon and Dollymount on the other; and the names of Ferguson, the two Fentons, Evans, Rigby and Milner, Humphry, Gilder, Frazer and Piggot, have become familiar names to us all, and we greet you with a hearty welcome. Your mission is well known—I may say the civilized world over. A great and unprecedented contest is soon to take place between representatives of two of the greatest nations on the face of the earth. Armed and equipped as the regulations direct with deadly weapons they will meet at Creedmoor, and then there in a long-range match contend for the 'American Centennial Trophy and Championship of the World.' From this time till the day of the contest, not only will every facility be afforded you for practice and obtaining information on the range at Creedmoor, but also caring for your personal necessities, comforts and pleasure while you remain with us, will be our highest aim. Again we welcome you and extend the friendly hand."

Then as the two gentlemen shook hands the crowd from the two sides of the globe shouted and hurraed. Sir Henry Halford, in responding, was short and spirited, saying:

"It is indeed a peaceful errand on which we are bent, though we carry deadly weapons. For the past two years I have looked forward to this visit with the greatest pleasure and interest. As the company is aware, circumstances prevented the appearance last year of a British team. But I felt that it was only deferred, and now the pleasure of meeting is the greater as the delay has been the longer. I can only say that we are here, all in excellent health and spirits, after a most prosperous, rapid and peaceful ocean trip, more than astonished and pleased with the hearty welcome with which we are met. Never before in the history of the world has such a contest been brought about—the most friendly of battles with the most deadly of weapons. The Americans have enjoyed an unprecedented succession of triumphs. Again and again has the wreath of victory fallen to them, and it is, I think, about time for a lapse in this chapter of monotony. All I can say is we shall strive to put the period to the story. The gentlemen of the team I have the honor to command are all of them good shots, and I can safely say the team is not a bad one. More I cannot and dare not utter in the presence of such thorough experts as the Americans have shown themselves to be. Of one thing I am sure, that the Americans are far better speech-makers than we are at home, and I can only ask them to pardon any deficiencies in my speech, while I offer them and American riflemen generally many thanks for the kindly feeling shown and the many valuable lessons in long-range practice given by them, and particularly for the attentions shown on the present occasion.

Without waiting for more than an hour's breathing spell in the city, Sir Henry and his party pushed on to the quarters they had determined on at Stewart's Garden City Hotel, a few miles from Creedmoor, where they will remain in quiet and strict seclusion, the riflemen taking all the practice possible until the day of the match.

The team party consists in all of eighteen gentlemen and three ladies. Sir Henry Halford, Lieutenant-Colonel by rank in the volunteer service of England, comes as captain of the team. He is an elderly gentleman, with full, gray beard, but a sharp eye and thoroughly healthful constitution. He is enthusiastic in rifle matters, and if careful management and strict attention to each and every detail can insure success the victory will lie with his team. Lieut.-Col. C. Lenox Peel, late of the Scots Guards, is an old Wimbledon manager, having for a number of years formed one of the working staff at the Wimbledon meetings. He will act as adjutant of the team under Sir Henry Halford. Capt. Bowly, of the Twentieth Regiment Foot, is a young man, and accompanies the party as a general assistant. Mr. Waller is a stout gentleman, who for a number of years has filled various posts about the Wimbledon meetings. E. Vaughan Thompson is another of the non-shooting members of the party. He is a cousin of Sir Henry. The last of the non-shooting men is Vernon K. Armitage, who comes accompanied by Mrs. Armitage merely to see the match.

The riflemen proper are twelve in number, all of them standing well up among the crack shots of the United Kingdom. Lieut. George Fenton, of the Seventy-seventh Foot, and Wm. Rigby, cousin of John Rigby, arc veterans in the list of Irish shooters. Joshua K. Milner is the only man in the party who has taken part in the matches of the three previous years, while R. S. Greenhill, who in 1875 shot at Dollymount, comes over to America for the third time as a reserve man. The Scotch contingent consists of three

men—G. Grant Peterkin, a young man, but of Elcho Shield experience; has been in this country before, having lived for a time in Virginia. Arthur M. Fraser and Wm. Ferguson are the other tried and trusted "brither Scots," in whom Sir Henry is well satisfied. The English section of the team includes five names: Lieut.-Col. Penton, a middle-aged gentleman and an "old reliable" in the English Elcho circle; he is accompanied by Mrs. Penton; H. Saville Ward Evans, a shrewdly-built gentleman of student-like appearance; T. Taylor Piggot, a young shot, but a good one; Wm. H. Gilder, who for fourteen years has filled the post of Sergeant Instructor of Musketry at Harrow, and A. Paget Humphry, an old Queen's man, who travels in company with his wife.

CREEDMOOR, Aug. 25.—In the absence of many of the Creedmoorites down the Bay looking after the British Team, the Remington match failed to fill, and was laid over. But the third contest for the *Turf, Field and Farm* drew a fair list of entries, though the score was not particularly brilliant. Capt. A. Anderson, of New Jersey, held top place.

THE AMERICAN TEAM PRACTICE.—The first team practice of the newly-chosen American international team for 1877 was held on the Creedmoor ranges on the 21st inst. The full team were out, as were the two reserves, and if the squad is to show the improvement which is to be expected as they get into a good working system, some magnificent scoring may be looked for. The wind held from 4 to 6, and a clear, gray light favored the riflemen most of the day. Of the team General Dakin was so unfortunate as to find some imperfection in the breech-block of his rifle, and came out at the foot of the list with a poor score. Hyde shot wonderfully, getting a grand total of 214 in the possible 225, the champion score of Creedmoor so far, beating Jewell's pair of 213's, but not yet up to the big scores heard of from some of the country ranges. It is somewhat suggestive that eight of the ten team men showed misses in the scores, Jackson, the Bostonian, and Hyde being the exceptions. It is the diminution of these "unaccountable misses" which alone remains to make these modern breech-loaders the most precise arms extant. The shooting, as a whole, was brilliant, the leading eight men on the team targets reaching an aggregate of 1,639 points, or within one point of 205 points per man.

Wednesday, the 22d, the entire team were again on the range, but neither the day nor the score was so good as on the preceding day. At present there are several members who are "good holders but poor judges;" in other words, providing they have the assistance of sharp coaches on matters of elevation and windage, they can be relied upon for a good score. But the other members of the squad receive no assistance in return from such members. Of course there is grumbling—a little—about that, since it may lead to an excellent score for the pupil and an inferior one for the coach. The actual team total on the second day was 1,562 points, but taking the eight highest scores, which include those of the two reserves, Lamb and Hepburn, the total reached was 1,596, very good as long-range shooting generally goes, but not enough to suit the team men. The full scores for the two days stand:

Table with columns for AUG. 21 and AUG. 22, listing names and scores for various teams and individuals.

THE NEW ORLEANS RIFLE TEAM.—The Crescent City Rifle Club men, by their performances on the Creedmoor ranges, have won the admiration of the long-range men, and completely silenced the doubts of those who were wont to look upon our reports of their home doings as somewhat apocryphal. They are really a fine band of shooters, and made a very good beginning at long-range practice on the 21st. Mr. Dudley Selph, that phenomenal shot, whose grand New Orleans score of 219 has been the wonder and envy of riflemen of all ranges, seemed as though he was to do something even better, and at 800 yards created a genuine ripple of surprise in a straight run of fifteen bull's-eyes, a feat accomplished but once before at Creedmoor, by E. Johnson, of the Irish Team, on the first day of the Centennial match in September last. The other gentlemen of the Southern team did not show such good results, but enough to convince good judges that with the care and earnestness with which they practice and mutually assist one another, the finally-chosen four men will make great scores in the inter-state match.

On the 22d inst., far off to the extreme right-hand target of the range the little knot of New Orleans riflemen were again busy, pulling together; and while the American team fell off, this band of keen-eyed Southerners actually pulled ahead, their second day's work showing the best total, despite the fact that Eyriel is still on the semi-sick list, and that Manning at 800 yards put in a bull's-eye on the wrong target. Renaud at 1,000 yards was specially unfortunate, getting five misses after a magnificent opening early in the day. Dudley Selph, as usual, led the squad, and led the field as well, with 206 points. The men have a good style of work, and when they get into thorough working trim their system will enable them to show some large aggregates. The full scores of the Louisianians for the two days stand:

Table with columns for AUG. 21 and AUG. 22, listing names and scores for the Louisiana Rifle Team.

A SCOTCH OPINION ON THE PROTEST.—The *Military Record and Volunteer News*, of Glasgow, Scotland, an excellent sheet on the broad subject of Scotch rifle shooting, in its issue of Aug. 8th, has an excellent criticism on the Scotch protest, and, we think, covers the question fairly and gives a hint which the N. R. A. of New York would do well to heed. It says:

"We regret exceedingly to notice the acrimonious feeling displayed in a letter from the Secretary of the Scottish Rifle Club, in reference to the forthcoming International Match at Creedmoor, and it seems to us a pity that the Scottish Club should endeavor to play a dog-in-the-manger policy. At the same time, we have no hesitation in saying that the American Rifle Association are blameable for leaving their invitation in so ambiguous a form as to lead to misunderstanding and schism. The error of the American secretary seems to have been to have sent his circulars of invitation broadcast among rifle associations and rifle clubs of repute, and it certainly does behoove the United States Association to explain explicitly the understanding on which their invitation was given. If they stretched courtesy too far last year let them say so at once, and give a proper definition of their meaning in the conditions they lay down, 'that the various teams participating must be native born citizens, residents of the countries they respectively represent, except in the case of teams representing a provincial territory of a government, in which case residence in the province will be sufficient, provided the member is a native born subject of the parent country. We are not such churls as not to wish the combined team of English, Irish and Scots every success on foreign soil.'"

—The Stock Exchange Rifle Club had a competition on the 21st inst. for the bronze medal of the N. R. A., presented them as an affiliated club. The firing was at 200 yards, any rifle, ten shots per man. Daniel Chauncey, Jr., an efficient Seventh Regiment man, held first place, the scores standing out of the possible 50 points:

Table listing names and scores for the Stock Exchange Rifle Club.

Table with columns for NEWARK TEAM, listing names and scores.

This is claimed to be the largest score on record for a two hundred yard off-hand contest with a team of six. It is the seventh match of the Rochester Club at that distance, and they have won all of them. The Newarkers took their defeat in a gentlemanly spirit, and subsequently entertained their victors at supper. We would suggest that the Rochester boys try their luck in the short range team match at Creedmoor during the fall meeting.

WORCESTER, MASS.—The rifle team of the Worcester Sportsmen's Club came off at the Greenwood range, on the 17th inst. The weather was delightful, but the wind was variable and shifting, rendering close shooting particularly difficult. Mr. A. G. Mann offered a handsome powder horn as a prize for the best total score of the day, and it was won by Mr. C. B. Holden. The shooting was in conformity to Creedmoor rules, 17 shots each, at 800, 900 and 1,000 yards, with possible scores of 75 at each range, and 225 total. The scores stood:

Table with columns for 800, 900, 1,000, and Total, listing names and scores for Worcester Sportsmen's Club.

On the 24th two trial scores were made at 800 yards, the total standing out of the possible 225:

Table with columns for 1st Trial, 2d Trial, and Total, listing names and scores for Worcester Sportsmen's Club.

BOSTON—Walnut Hill.—The fifth competition for the Ballard mid-range rifle came off on the 23d inst. at the range of the Massachusetts Rifle Association at Walnut Hill. Mr. W. H. Jackson had won in two previous contests for the prize, and Mr. John A. Lowell in two. Mr. Jackson, leading in this competition, took the rifle, scoring 117 in a possible 125. Mr. T. H. Gray made an excellent score in the 800-yards shooting, but owing to something breaking in the lock of his rifle he was compelled to withdraw. This will be considered also one of the competitions for the position of one of the representatives of Massachusetts at the national meeting. Mr. Jackson will be one of the four sent by this association, his back record being allowed. The distance was 800, 900 and 1,000 yards, 7 rounds at the first, 8 at the second, and 10 at the third; position, any within the rules. The following was the score:

Table with columns for 800, 900, 1,000, and Total, listing names and scores for Walnut Hill competition.

Walnut Hill, Boston.—The second of four contests to decide who shall be the four representatives from the Massachusetts Rifle Association to the national meeting of riflemen came off at Walnut Hill Range on the 21st inst. The day was very favorable for the practice, and the extraordinary success of Mr. William Gerrish, who scored 212 out of a possible 225, elicited general remark as being the best score yet shown at this range. The scores stood:

Table with columns for 800, 900, 1,000, and Total, listing names and scores for Walnut Hill competition.

MARYLAND—Baltimore.—The second competitive shooting for the Whitney rifle took place at the Patapsco Rifle Range Saturday, Aug. 25. The score was as follows:

Table with columns for 800, 900, 1,000, and Total, listing names and scores for Patapsco Rifle Range.

MR. F. I. HACK had the highest score at the first day's shooting; Mr. B. B. Lynch was the highest at the above shooting. The third and last contest takes place at the above grounds on Saturday next.

MICHIGAN VS. WINDSOR, CANADA.—The Michiganders are trying conclusions with their friends over the border, and on the 20th inst. the first bout between six members of Company A, Third Regiment of Michigan State Troops, and an equal number from the Windsor Infantry Company, took place near Windsor. Each man had five shots at each of three ranges, 200, 400 and 500 yards respectively in use. The darkness during order named—old square target in use. The darkness during the firing at the long range brought down the average, but the record was thought by the marksmen a fair one, considering the arms and the practice of the men. The following is the score, showing the number made out of a possible 20 at each range per man:

Table with columns for WINDSOR TEAM, listing names and scores for Michigan vs. Windsor competition.

DETROIT TEAM.

	200 yds.	400 yds.	500 yds.	Total
A Howard.....	17	11	11	39
R A Bassell.....	13	3	6	22
E K Roberts.....	9	13	10	32
M P Fletcher.....	6	13	3	22
C F Montgomery.....	6	4	0	10
W A Whitelsey.....	9	1	2	12
Totals.....	60	58	32	150

The second contest will take place on the Michigan side of the river, but the exact time and place are not yet agreed upon.

Zettler's Rifle Club held their last practice shooting for the month of August, Tuesday evening, Aug. 27, at the Gallery, 207 Bowery. A handsome trophy was presented by the Zettler Bros. to the member who made the most 1-inch bull's-eyes in these shootings, or thirty shots. It was won by Max B. Engel, who made twenty-five eyes; ten members of the club were in the twenties close after him. Mr. Engel has presented the trophy to the club for competition, same conditions, for month of September. The gold medal or "centre badge," which has been shot for every Friday evening, open to all comers, was won for the third time by D. L. Beckwith, Friday, Aug. 17, and it now becomes his property.

Company A, 48th Regiment, N. G. S. N. Y., have entered for the third competition for the Nevada Badge and fixed Sept. 6th as the date of shooting. This is the first entry this year, but other entries may be looked for from the 7th and 23d, and perhaps from other regiments.

The American team have chosen a new shooting costume, and instead of a quiet suit of green or blue or gray, have chosen a dirty brown, and one of the New York dailies says very kindly that "clad in the new garb, the marksmen look much finer than a group of convicts." We would rather say that they would pass for a parcel of bon-ton plow boys.

The first practice of the British team on the American range last Tuesday showed a team total of 1,542 points against a total of 1,640 by the first American eight. The New Orleans men are working most magnificently, Selph getting a virtual score of 217 points, though with a bull's-eye on the wrong target his actual score drops to 213 points.

The *Military Record*, of Glasgow, Scotland, relates, in its issue of Aug. 15, that another death on the rifle range has taken place at Hawick (near Edinburgh) last week, when a young man named Easton, who was in the butt marking for a comrade of the 4th Roxburg R. V., was shot in the forehead, death being almost instantaneous. It is surmised that he had been looking out of the mantle when the fatal shot reached him. Such events are called "accidents," seemingly because they should not happen, but they are the result of carelessness, negligence and breach of regulations. Target shooting need not be a dangerous exercise.

The Royal Artillery and Engineers' Military Academy, Woolwich, has a remarkable cadet this year in Mr. Codd, son of a clergyman. He has headed the list by nearly 2,000 marks, and also carried off the eight best prizes, besides the sword given by Lord Napier for the best essay on the Waterloo campaign.

The greed of the owner of adjacent land at Creedmoor has induced the abandonment of the 1,200 yards match from the fall meeting programme.

Reports from the Montreal Rifle Meeting show that Homer Fisher, the New York representative, is doing good work there.

Game Bag and Gun.

GAME IN SEASON FOR AUGUST.

Woodcock, <i>Philohela minor</i> .	Red-backed sandpiper, or ox-bird <i>Tringa americana</i> .
Black-bellied plover, ox-eye, <i>Squatarola hutchinsoni</i> .	Great marbled godwit, or marlin, <i>Limosa julia</i> .
Ring plover, <i>Spizella monticola</i> .	Willie, <i>Totanus semipalmatus</i> .
Stilt, or long-shanks, <i>Himantopus mexicanus</i> .	Pattler, <i>Totanus melanotos</i> .
Red-breasted snipe or dowitcher, <i>Mareca americana</i> .	Yellow-shanks, <i>Totanus flavipes</i> .

"Bay birds" generally, including various species of plover, sandpiper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets, etc., coming under the group *Limosa* or Shore Birds. Many States permit prairie fowl (timnated grouse) shooting after August 15th.

The frequent alteration of game laws makes such confusion that sportsmen are kept quite in the dark as to when shooting on various kinds of game is permitted. We therefore append the following table for reference:

States	Pinnated Grouse <sup>a</sup>	Ruffed Grouse <sup>b</sup>	Quail.	Woodcock.
Ill.....	Sep 1 to Jan 15	Oct 1 to Feb 1	Oct 1 to Feb 1	Sep 1 to Jan 15
Ind.....	Oct 1 to Feb 1	Nov 1 to Jan 1	Nov 1 to Jan 1	July 1 to Jan 1
Iowa.....	Aug 15 to Dec 1	Sep 15 to Dec 15	Oct 1 to Jan 1	July 1 to Jan 1
Minn.....	Aug 15 to Oct 1	Sep 1 to Dec 1	Sep 1 to Dec 1	July 3 to Nov 1
Wis.....	Aug 15 to Nov 1	Sep 15 to Jan 1	Sep 15 to Jan 1	July 4 to Nov 15
Neb.....	No Shooting	No Shooting.	No Shooting	No Restriction.
Kans.....	Aug 1 to Feb 1		Oct 1 to Jan 1	

A law was passed in Nebraska last February, prohibiting the shooting of any kinds of wild bird except waterfowl, snipe, waters and woodcock. No close season is specified for woodcock.

TABLE OF CHARGES CONFIRMED.—I see in your Aug. 16th number the report by B. R. B., of Galveston in reference to the charges he uses in his two guns—Nos. 12 and 6 bores, the former choke, the latter cylinder and muzzle-loader, and I am much obliged to him for it.

I take no special interest in any particular size or kind of gun, but hold them all up alike for experiments and general deductions. I hope my intended impartiality in what I have to say may prove the more useful to the public. Nor do I contend that any two guns require the same charges. They differ as our watches do, yet the best guns run nearly alike in charges, and so much so that a system of charges may be set down for them with the greatest utility to the sporting world. Especially is this the case in behalf of new beginners with the gun who know nothing of it. The old gunner may require no aid, but the boys and youths are looking after it. Is it possible that after a century or more of practice with the shot gun, and this almost the world over, that we are unable to form a general table of charges for reference and instruction? Is it possible that all is indefinite and confusion on this subject? Can we not stick a pin somewhere; if not on the line of positive certainty, then so nearly along the edge of it as to be use-

ful? I know we can, and without laying a snare to any one. This done, there is yet left time to all who desire a full field for experiments, a thing I cannot too heartily indorse.

Speaking of his experiments, your correspondent says: "My Fox I had to target two hundred times, and find her best charges to be  $\frac{3}{4}$  drachm of Hazard's No. 3 Ducking, 1-1-16 oz. of fine shot, or  $\frac{1}{4}$  of No. 3 for duck." I will now bring forward from the "Table of Proportionate Charges" (see Hallcock's "Gazetteer"), the charge set down for this No. 12 bore. It is 3-1-3 drachms of powder and  $\frac{1}{4}$  oz. shot for shooting within 50 yards, with the remark in the back that for duck and long shooting this charge may be increased according to the power of the gun and the ends to be obtained. This coincidence of charges is pleasing to learn, and, I trust, to all. Nothing could be more satisfactory to me or (by comparison with the table) to the beginner with the gun.

Again he says: "My old six bore takes  $\frac{6}{16}$  drachm of Hazard No. 4 Ducking and 2 ozs. No. 2 shot." This is evidently his duck load. I now bring forward the charge laid down in the table above referred to for this same No. 6 bore. It is  $\frac{5}{16}$  drachm of powder and  $\frac{1}{4}$  for shooting within 50 yards, but which charge for ducks and longer shooting may be increased as above stated. Nothing could compare more harmoniously or be more pleasing to learn in reference to the correctness or utility of the "Table" than B. R. B.'s report. I am satisfied from the results that his experiments have been made with care, and I wish to give him here full credit for the valuable information he has been pleased to give to the public. I have other like experiments of confirmation before me in F. & S., which I hope to bring forward hereafter.

It will be seen in particular that B. R. B.'s loads, the results of long trials as well as practical experience, fully confirm and agree with the "Table" loads; that they are virtually proportionate charges, each bore having a proportionate amount of ammunition. This is just as might be expected where a table is not only based on true mathematical principles, but is further fully confirmed by general practice I believe.

MAJ. H. W. MERRILL.  
*New Rochelle, N. Y., Aug. 22, 1877.*

CHILLED SHOT.—In the FOREST AND STREAM issue of the 9th instant, among your Answers to Correspondents, I noticed one on the subject of Chilled Shot. Being about to lay in a large stock for the fall campaign, I thought it advisable, before so doing, to get the opinion of a friend, in whose judgment in such matters I place the utmost confidence, and accordingly received the following:

TORONTO, August 11, 1877.  
DEAR B.—You can bet your last dollar on the "chilled" shot. Last fall the St. Clair Flats Shooting Club used nothing else; and for laying game out stiff in all kinds of shooting—sky-scraper, etc.—I have never used anything better; and where the shot goes half way, the chilled goes through.

The prospects for fall shooting on the "Flats" are of the best. John East tells us the red-heads have bred in large quantities, with the big ducks more numerous than ever; and as the grounds will be well protected from outsiders, we calculate on a few big days.

Yours truly,  
G. W.

The writer of the above has shot ducks for market for years, and is by all odds the most successful duck shooter in the Province of Ontario (if not in the Dominion); in fact, there is no better man in a "mash," and has killed on those same "Flats" on an average, about 1,000 ducks every autumn for the last twelve or fourteen years, so that his opinion should have some weight.

MARSHALL, TEXAS, Aug. 18, 1877.

PLINY, the YOUNGER, as a HUNTER.—Chancing to pick up a volume of Pliny, I read a letter from him to his friend Cornelius Tacitus, the great statesman of that time, which is to me quite interesting, as it is just my idea of enjoyment in the woods. I have translated roughly as follows:

You will laugh, and you may (well) laugh, for I, whom you know, have killed three boars, and, in truth, beautiful ones. You? you say; (yes), I, indeed, yet I did not depart wholly from my accustomed rest and quiet. I was sitting by my nets, having neither my spear nor lance near me, but with my pencil and note-book I was meditating something, and was writing it down so that if I returned with empty hands my book would nevertheless be full of notes. There is no reason why you should (make fun of) this way of studying. It is strange that the mind is influenced by the excitement and by the movement of the body. The woods about one, the solitude and that silence which is given to the hunter are great incentives to thought. Therefore, when you go out hunting, take my advice, and, together with your hunch-basket and flask, carry your note-book. You will not find that there is any more pleasure in hunting on the mountains than in studying nature. Farewell.

This is admirable advice to lovers of nature, though given over a thousand years ago; namely, to take a note-book with you while hunting or fishing, and jot down anything of interest which comes under your observation. It is very pleasant in after years to look over such a book.

PARTS OF A GUN.—Bolts—Irons which enter the loops or eyes of the barrel to fasten it to the stock. Bridge—A polished piece of steel which caps the tumbler, and is secured by screws; it also receives the sear screw. Butt of stock—The shouldered extremity of the stock. Cap—It covers the ramrod screw, but of course is obsolete in the breech-loader. Casting-off—The outward inclination given to the butt of the gun, being intended to incline the line of the aim inward. Swivel—A small catch suspended from the neck of the tumbler to receive the extremity of the mainspring. Cock—This is more frequently called the striker, or hammer. Escutcheons—Ornamental pieces of steel to prevent the bolts from defacing the stock when the turn-screw or pinners are applied; escutcheons are also used on other parts to receive initials, crests, shields, etc. False-breech—This receives the butt or nose of the breech when the barrel is fastened into the stock. Peuce—The part between the cock and nipple which receives the solid cock. Guards—That which defends the triggers. Head-plate—The plate with which the butt of the stock is tipped. Lock-plate—Supports the principal works of the lock. Loops—Eyes on the outside of the fore part of the stock, which receive the bolts that fasten the barrels to the stock. Mainspring—That by which the tumbler is worked with the cock. Nipple, or pivot—The small iron pillar that receives the copper cap; the latter, however, is obsolete in breech-loaders. Pipes—Tubes to receive the ramrod; done away with, of course, in breech-loaders. Rib—Central piece of iron which unites the barrels and receives the ramrod. Scroll-guard—An extension of the guard which receives the

right hand in firing the gun; it is now superseded by the pistol-handle stock. Sear—That which catches the tumbler for half or whole cock, on being pushed up by the trigger. Sear-spring—The spring which holds the sear in the notches of the tumbler at either half or whole cock. Side-screw—A screw which fastens on the locks. Slight—A patch of metal, usually of silver, placed near the gun-barrel to direct the aim. Spring-craup—A useful instrument to assist both in taking to pieces and putting together the parts of the gun. Tail, tongue, or finger—The neck, shoulder, or arch of lockhammer. Top-rib—This opposes the rib which unites the lower arches of the barrels; when it is very prominent behind, it is called the elevated rib. Trigger-plate—The trigger works in it. Trigger springs—Are small springs met with in all locks, and are intended to keep the triggers close to the sear. Tumbler—The moveable centre-piece of a lock which falls with and is subservient to the cock. Tumbler-screw—This fastens on the cock. Vent-hole—Used only in muzzle-loaders, are intended to let out the gas, and are supposed to lessen recoil. Worm—The screw at the end of the ramrod; obsolete in breech-loaders.—Land and Water.

A SHOCKING ACCIDENT.—Wm. Hardy, of Detroit, Mich., was accidentally killed while on a hunting expedition at the River Rouge. He left home early in the morning, and about 12 o'clock brought up at a small bridge across the river, where he stopped for the purpose of shooting at some fish which could plainly be seen swimming below. While loading an empty barrel his gun slipped from his hands and lodged between two timbers, the muzzle toward him, and in the descent the hammer fell and the weapon was discharged. The heavy load tore away the unfortunate man's left wrist and lodged in the lower part of his face, mutilating it in a shocking manner and causing instant death.

HOW TO BURST A GUN.—A curious case of gun bursting came to notice a few days since. A gentleman was cleaning his gun with a swab and string, when the swab became jammed, to remove which he took a joint of fishing rod which happened to be just a twelve-bore, fitting the gun nicely, but the moisture from the swab swelled the end of it, and this also became immovable. Leaving the room for a few minutes, he was startled by a report, and returned to find his new breech-loader had become bankrupt by the swelling of the rod.

SHOOTING FROM THE HIP.—H. L. Bingham, of San Antonio writes: "Some of your correspondents seem credulous as to accuracy in shooting from the hip. I for years practiced that style of shooting on snipe and woodcock in Ohio and Michigan, and up to the time I came to Texas, I believe I was fully an average shot; but I now, however, in quail shooting, bring my gun well to the face, and take a quick steady aim, but it required over a year's practice to do this, as I was so fixed in the hip practice. Now, I occasionally shoot with my gun only breast high, and if any one doubts my ability to make a good bag, let him come to San Antonio this fall, and he will find he will have to work to keep even."

HOW TO TAKE LEAD FROM A GUN BARREL.—A quick and simple and unailing way is to warm a gun or pistol barrel slightly, and then anoint the interior with mercurial ointment. In a very few minutes the mercury forms an amalgam with the lead, when it will wipe out clean, leaving the surface perfectly smooth. I have used it for years in all kinds of arms, and it works to a charm.

[We indorse the above.—Ed.]

LOADING SHELLS.—Loading shells is one of the most essential things in shooting, and no matter how fine and costly the gun, or how expert a shot, if the shells are not properly loaded it will not shoot the way it should. Mr. C. H. Ritzmann, 943 Broadway, makes it a specialty to load shells, and any shell loaded at his place can be relied upon. He loads shells for some of our most noted pigeon shooters, and it will be seen that one badly loaded shell would do much mischief, yes, even lose the match. Shells can be had loaded with any brand of powder, soft or chilled shot, and each shell is marked as to the quantity of powder it contains, also the quantity of shot as well as the size of same.—[Ed.]

MASSACHUSETTS—Salem, Aug. 25.—The past week has been very dry. Nothing legal that I can gather from any part of the county. Woodcock and partridges are being shot in spite of the law, and much indifference is manifest among good sportsmen. Gunners say if the State can serve woodcock for the President, they'll shoot just as they please. Massachusetts Yankees are pretty democratic. Seriously, I think the Governor (off hats) set us a bad example. Saw first white-winged cove of Kettle Cove the 23d, also saw two loons and a large lot of herring-gulls.

East Templeton, Mass., Aug. 29.—Ruffed grouse are very abundant here, and promise good after Sept. 1, having been well protected during the season. Woodcock are also plenty, with no one to hunt them, the former birds being the favorite game in this region.

NEW YORK—South Oyster Bay, L. I., Aug. 23.—Agreeable to promise I report: Got yesterday of local birds—32 willet, plover, yellow legs and robins (mostly robins), besides ring-necked and oxeyes. No fight, nor will probably be any till a change in the weather, when, whoever is on the ground, probably will have good success.

PENNSYLVANIA—Harrisburg, Aug. 24.—A fine specimen of the "timber tootle"—a full-grown male bird—was shot along the river shore, where the large sewer from Pine street enters the Susquehanna River, Aug. 23, by Mr. Ed. Killough. A couple of little gamins, while hunting "helgrometes" for bass fishing, disturbed Sir Philohela, who took wing under their very noses and lodged among some bushes a hundred yards away. Killough, happening along, took in the situation, sent for his gun and bagged the woodcock. The river is here a mile wide. The bird must have flown from the opposite or Cumberland side of the river, landed on some grass plots, then reached one of the islands—from whence, after a strong flight of 500 yards, it must have thus reached our city town.

MARYLAND—Arlington, Aug. 24.—Woodcock are unusually abundant this season throughout the State. Fine bags are made by the sportsmen of this (Baltimore) county.

KENTUCKY—Louisville.—Plover and sand snipe shooting is to be had at Goose Islands below the bridge. Quail are reported very plenty in Todd and the adjoining counties of Southern Kentucky.

ILLINOIS—Decatur, Aug. 23.—Plenty of chickens here, but law-abiding sportsmen will get none, as the new law is not off till Sept. 1.

[The law is all right; why don't you prosecute if it is violated?—Ed.]

Kankakee, Ill., Aug. 24.—Ducks will afford splendid sport here this fall.

Quincy, Ill., Aug. 23.—We are going to have number one quail shooting here the coming season.

LOWA.—Knoxville, Marion Co., Aug. 23.—Chickens and Bob Whites have done remarkably well.

Many of the pot-hunting fraternities were out in full force by the 1st of August.

The prospect for Bob Whites, too, is very flattering—many of them will hatch two broods.

Des Moines, Aug. 25.—Prairie chickens are not quite as numerous as they were some years, yet there is enough to furnish good sport for those who take an interest in and enjoy a dog in the field.

MICHIGAN—Ann Arbor, Aug. 20.—Woodcock shooting has been very poor here this summer.

Woodcock shooting has been very poor here this summer. Although the season has been dry, the birds have nearly all been found on high land.

Olivet, Mich., Aug. 14.—Woodcock are abundant, making the warm hours hidious on Pine Lake.

Port Huron, Mich., Aug. 27.—The reports of firearms are to be heard every morning in Samia Bay.

Chelsea, Mich., Aug. 27.—Ruffed grouse scarce, far less abundant than in former years; on the contrary pinnated grouse seem to be on the increase.

MINNESOTA—Friend Turfill writes us from Devil's Lake that he is meeting with good success among the pinnated and sharp-tailed grouse.

NEW BRUNSWICK—Campbellton, Aug. 16.—Ruffed grouse are plenty, many of the young being nearly full grown.

PIGEON MATCHES.

BOGARDUS' RULES FOR GLASS-BALL TRAP SHOOTING.—We are in receipt of so many queries regarding the rules for Glass Ball shooting, that we append the same below, as obtained from Captain Bogardus:

- RULE 1st. All matches or sweepstakes shall be shot from three traps placed ten yards apart, eighteen yards rise, and the choice of trap to be decided by the referee...

MASSACHUSETTS—Springfield, Aug. 21.—The annual match of the Rod and Gun Club for the club badge occurred to-day, and was won by H. J. Perry.

Table listing participants and scores for the Mass. match: Lathrop 7, Hammond 7, Emerson 1, Gilmore 9, Wade 9, H. J. Smith 4, Gabb 9.

Capt. Bogardus gave an exhibition of rapid shooting, getting 300 balls out of 314; nine of the misses were miss-fires.

NEWPORT, R. I.—Narragansett Gun Club Grounds, Aug. 27.—Sweepstake match; \$50 entrance; one-fourth of amount to second man; 25 birds each, 30 yards rise, 80 yards fall; five traps; Hurlingham rules to govern.

Table listing participants and scores for Newport match: Perry Belmont 20, Martin Van Buren 10, S. H. Robbins 10, H. W. Hale 10, T. C. Van Buren 10.

Handicap sweepstakes, first miss out: First match won by J. S. Frick by nine birds; second won by T. Van Buren by four birds; third won by P. Lorillard.

NEW YORK—Dexter Park, Aug. 24.—Monthly contest of the Long Island Shooting Club for the club champion cup; seven birds; H. and T. traps; 25 yards rise; 80 yards boundary; Long Island rules.

\* Fell dead out of bounds.

NEW JERSEY—Bordentown, N. J., Aug. 22.—Pigeon shoot; 2 1/2 yards rise, 80 yards boundary, 11 birds each.

Table listing participants and scores for N.J. match: F. H. 10, E. W. H. 10, S. E. H. 10, R. H. 10.

No ties shot off.

Jersey City Heights, Aug. 23.—Handicap pigeon shoot of the New Jersey Gun Club, of Jersey City Heights, for the champion badge of the club; 10 birds each.

A match was also shot between three members of the Midway Sportsman's Club, and three members of the New Jersey Gun Club, resulting in a tie:

Table listing participants and scores for Jersey City match: R. Warnce 10, J. Wilson 10.

New Jersey Gun Club table listing participants and scores: J. Barclay 10, J. Pearson 10.

Long Branch, Aug. 22.—The pigeon shooting match between the New York and Philadelphia citizens, who are summer residents here, was shot under Long Island Club rules, 20 yards rise, 80 yards boundary, H and T traps.

Table listing participants and scores for Long Branch match: Walter Hamilton 10, Percy Hastings 10, B. B. Angel 10, Albert D. Yates 10, Charles Putney 10, Dr. P. Ellis 10, Samuel Clark 10, Wm. Cleghouse 6, Daniel Woods 6.

In the shoot-off, Hamilton, of New York, 4 birds, and Owens, of Philadelphia, 5 birds, were the highest scores.

KENTUCKY—Leopansport.—The Gun Club hold a tournament Sept. 13.

Louisville.—Wat. Griffith who is traveling in Germany, last month defeated a party of English travelers at ten single birds each by a score of eight.

ILLINOIS—Quincy.—A shooting match with forty glass balls each took place on Goose Island, Saturday afternoon, Aug. 18, between J. Webster and Dr. Lanoix.

Table listing participants and scores for Ill. match: Webster 11, Lanoix 11.

Mountain View.—The Gun Club of the Laffin & Rand Powder Company had their semi-monthly trap shoot for the club medal, Saturday afternoon, Aug. 25.

Table listing participants and scores for Mountain View match: H. J. Smith 7, A. H. Boies 6.

Ohio—Cincinnati, Aug. 24.—A glass ball match was held Aug. 17 at the Union Schutzen Park, by the Cincinnati Shooting and Fishing Club.

Table listing participants and scores for Ohio match: M. W. Henry 6, Sedam 10.

Table listing participants and scores for Ohio match: Henry 8, Sedam 7.

Table listing participants and scores for Ohio match: Caldwell 6, Henochberg 5, Culbertson 2.

Table listing participants and scores for Ohio match: Caldwell 4, Henochberg 4, Culbertson 2.

A glass ball match was shot at Price Hill on the evening of August 21, the shooting being done under the rays of a calcium light.

Table listing participants and scores for Ca. match: Redmond 8, Sedam 4, Henochberg 7.

CALIFORNIA—Sacramento.—Glass ball shoot at Oak Hall, Riverside Road, Aug. 19, 1877. First match, 25 balls:

Table listing participants and scores for Ca. match: Nick Dole 18, Wm Kimber 18.

Freeze out; won by Ruhle and Aukner.

Table listing participants and scores for Ca. match: J. Hennessy 9, W. Hamilton 4, J. Ruhle 11, G. Stout 6.

Third was a match of 10 balls for three class prizes.

Table listing participants and scores for Ca. match: Ruhle 10, Crackborn 10, Kimber 9, Lamay 9, Kane 8, W. Verity 8, Hamilton 8.

On ties, freeze out, Verity and Aukner divided first, Ruhle took second, and Crackborn third.

Table listing participants and scores for Ca. match: Weeks 11, Corbin 12, Verity 10, Stiles 10, Mauldin 12.

Fifth; freeze out:

Table listing participants and scores for Ca. match: Corbin 25, Ruhle 2, Mauldin 24, Aukner 24, Verity and Corbin divided.

Sixth; freeze out:

Table listing participants and scores for Ca. match: Ruhle 4, Aukner 4, Robbins 3, Hamilton 30, Verity and Hamilton divided.

Seventh match:

Table listing participants and scores for Ca. match: Ruhle 7, Hamilton 9, Verity 6.

Eighth; double balls:

Table listing participants and scores for Ca. match: Ruhle 8, Hamilton 5.

Ninth; amateur's match, 4 balls each.

Table listing participants and scores for Ca. match: Dr. Tebbets 4, A Woods 4.

Tenth was a match between Dr. Duell and E. Girard, of 10 balls each, which was declared drawn, they breaking but one ball each.

LONG-RANGE RIFLE SHOOTING.—A complete history of the International long-range matches, complete Elcho Shield scores, rules and regulations of the N. R. A., etc., fully illustrated. Ready Monday Sept. 2d. Price 25 cents.

# Yachting and Boating.

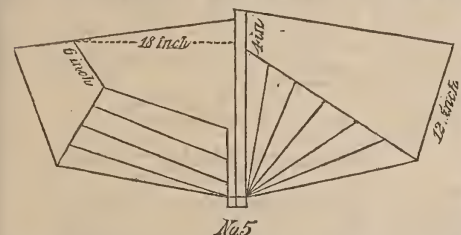
HIGH WATER FOR THE WEEK.

Date.	Boston.		New York.		Charleston.	
	H.	M.	H.	M.	H.	M.
Aug. 31	4	00	0	39		mid
Sept. 1	4	55	1	31	1	54
Sept. 2	5	13	2	21	2	05
Sept. 3	7	07	3	43	3	21
Sept. 4	8	13	4	56	4	32
Sept. 5	9	12	6	00	5	36
Sept. 6	10	06	6	57	6	35

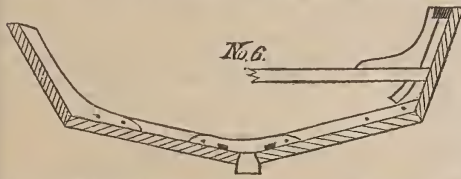
## BOATS AND YACHT-BUILDING.-- 4th Paper.

THE "SKIP-JACK" MODEL.

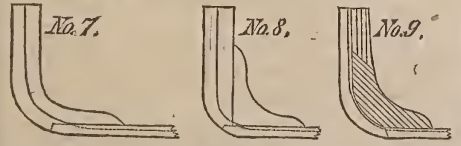
THE "skip-jack" is a connecting link between the skiff and the round-bottom boat, and is more easily built than the latter, as it has no bent timbers, and the planking is put on without the trouble of shaping. Boats of this model row easily, and sail well, as the bow is sharp and consequently prevents "pounding" in a sea-way. It is a build of boat not often seen, and but little known, but I would recommend it strongly in preference to either a scow or skiff; especially if rough water is to be encountered. Some years ago, a member of the New York Yacht Club is said to have won the prize at the annual regatta with a yacht built on this plan. In the construction of this boat we introduce, for the first time, a keel, showing its connection with the stem, and stern; also cross-timbers, or ribs, and fore and aft planking. We will first consider a row-boat, sixteen or seventeen feet long, four feet wide and sixteen or seventeen inches deep at midship section. Diagram 5 gives the general shape of boat; one side



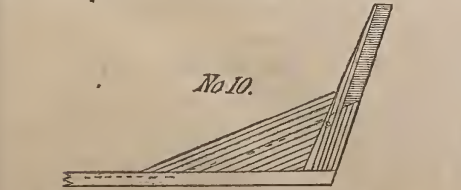
represents the bow of boat, the other the stern; this diagram also shows the shape in which the side-boards are cut. These side-boards are twelve inches wide, one-half inch thick, and of sufficient length, curved from the middle toward the ends. The end of board designed for the bow of the boat, is left four inches wide, the other end being six. The curve on side-boards is easily marked, by so bending a strip of board one inch square, that it will give the curve wanted. The curved edges of the side boards are beveled, the bevel not being uniform, as it is greatest at the widest part of board, diminishing to the bow-end, where the bevel runs out. Diagram 6 shows



bevel at mid ship section. The keel is of oak, one and three-fourths inches square. The length of keel depends somewhat (more or less) on the rake of stern post, and also on the curvature of the stem. The stem may be cut out of a "knee," and joined to the keel, as shown in Diagram No. 7; this is the strongest and best way. If the foot of the stem is not much "rounded" it may be shaped as shown in Diagram 8; or, it may be "built up" as shown in No. 9. The dotted lines in the dia-

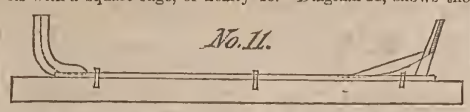


grams show the places to cut the "grooves" for ends of planking. The stern post is of the same thickness as keel—one and three-fourths inches. The stern "deadwood" should be one and three-quarter inches thick, shaped and put together, as shown in Diagram 10—dotted lines showing grooves for



planking. The angle to cut grooves at top of stem is found as explained in Diagram 1, in the paper on the skiff. From the top of stem, the angle of the grooves diminishes to the bot-

tom, or foot, where it joins the keel, and the upper edges of the keel are beveled to correspond to the different angles which the "ribs," or cross timbers, make with it. The bevels on keel are continuations of the grooves in stem and stern timbers, and the planking is fitted to the various grooves and bevels with a square edge, or nearly so. Diagram 11, shows the



stem and stern post fitted to the keel, also the "stocks" on which the keel is fastened. The stocks consist of a straight edged plank, two inches thick, set on edge and fastened to the floor or bench. A mould board is cut and used as before directed. The side boards are fastened to the stern board and stem; the lower edges of side hounds at midship, being four inches above the keel. Ribs, three-fourths of an inch thick, ten or twelve inches apart on keel, and require more or less beveling. The best way to find the bevels required is to cut the ribs to their proper lengths, and set them in place; the bevels are then found by placing a straight-edge on the ribs from one to another, and the amount of bevel required, will be at once seen. After the ribs are beveled and fitted, they are fastened on to the keel, their outer ends being joined to the sideboards by knees, cut to the proper angle and fastened to the side of ribs. The bottoms may be fastened on the keel alongside each pair of ribs, or they may be placed on the keel half way between them. The rib, knee, and bottom, are shown in Diagram 6. Small notches are cut on the under side of ribs and bottoms to allow water to pass freely to the "well," or opening left in the floor for bailing. NAUTICUS.

[TO BE CONTINUED.]

**NEWPORT—Aug. 25.**—Race for an elaborate prize presented by Mr. J. Grinnell, Commodore of the Central Hudson Club, of New Hamburg, N. Y. The course was from an imaginary line drawn from the southwest corner of Long Wharf to Goat Island, north to and around Dyer's Island buoy, south to and around the can buoy at the south end of the torpedo station; north to and around the buoy at Bishop's Rock, south to and around the can buoy at the south end of the torpedo station, and thence north to the finish at the starting-line, a distance of twenty miles. All the buoys were left on the port in turning, and Roso Island was also left on the port in passing. Wind fresh from south-southwest.

The result was as follows:

Boat.	Owner.	Actual time.	Cor. time.
		H. M. S.	H. M. S.
Gleam.....	F. A. Gover, Bristol.....	3 5 4	3 4 32
Dart.....	R. Youmans, Newport.....	3 15 18	3 13 1
Annie M.....	J. Rogers, Newport.....	3 18 36	3 16 36
Phigot.....	J. Grinnell, New York.....	3 18 34	3 18 2
Victoria.....	J. R. Roosevelt, New York.....	3 21 20	3 20 8
Julia.....	N. G. Herreshoff, Bristol.....	3 30 9	3 23 0
Una.....	J. Borden, Jr., Fall River.....	3 30 2	3 27 20
Dove.....	R. K. Winans, Baltimore.....	3 37 9	3 34 47
Sappho.....	A. M. Jones, New York.....	3 45 50	3 40 58

**SARATOGA SINGLE-SCULL RACE.**—The three miles single-scull race on Saratoga Lake last Tuesday was contested by Chas. E. Courtney, of Union Springs, N. Y.; James Riley, of Staten Island; and Fred. Plaisted, of New York. Courtney led at the half mile and Plaisted was ahead at the mile. Plaisted and Riley fouled, but all three reached the turning-point nearly together, Riley then gaining the lead. Courtney won the race by three lengths in 30m. 47<sup>3</sup>/<sub>8</sub>s. Riley came in second.

**NEW JERSEY—Newark Bay, Aug. 27.**—A race open for sloops and cat-rigged boats was sailed over a course extending from Bonnel's boat-house, Greenville, around Beacon Light, to and around stake-boat off Willow Haven dock. Course sailed over twice; whole distance, ten miles:

	Actual time.	Cor. time.
	H. M. S.	H. M. S.
Wave.....	2 12 30	1 58 10
Lizzie V.....	2 11 50	2 07 50
Rish.....	2 17 35	2 10 35
Isabel.....	2 33 45	2 33 45
Telegraph.....	2 40 35	2 40 35
Willie R.....	2 32 20	2 29 20
Charlie G.....	2 39 10	2 39 10
Sallie Jane.....	2 49 20	2 45 20

The first prize, a gold anchor and compass combined, awarded to Telegraph; second prize, a silver cup, to Wave; third prize, a gold anchor, to Willie R.

**MAINE—Portland, Aug. 24.**—The races for the challenge cup, for sloops and schooners of the Yacht Club of the second class, were sailed over a course of 15 miles. In sloops the Georgie, the present holder of the cup, won in 2 hours and 53 minutes 25 seconds. In schooners the Undine won in 4 hours 42 minutes 4 seconds, and retains the cup.

**MICH.—Port Huron, Aug. 25.**—The Port Huron Yacht Club—I know not why it is dignified by the name, as all the so-called yachts are but mere cat-boats—seems to be dying a natural death. Can not a missionary be sent to this benighted city? Tug races are, however, popular. The Junior Commercial man is on an exploring expedition to the wilds of Lake Michigan, Chicago, etc., with a catamaran. Hartman will tell you all about it when he gets back. AROUND.

**A FIVE-MILE SCULLING MATCH.**—Articles of agreement between Evan Morris, the champion, and Pat Luther, for a five-mile scull race for the championship and \$2,000, were signed 27th. They differ from the Morris-Scharf articles in the provision that each contestant shall turn his own buoy. Oct 13 is named as the date of the race, and Hulton course, on the Allegheny River, 12 miles above Pittsburg, as the place.

**RESOLUTE BOAT CLUB.**—The first annual regatta of this club was held on the Hudson, near Carmansville, Aug. 25. Summary: Junior sculls race, one mile, with a turn. Entries: F. Baker, W. B. Peet, J. Wheelock. Wheelock, 5m. 40s.; Peet, 9m.

Four-oared barge race, same distance entries: The Punch, manned by J. R. Folsom, M. Brown, M. Williamson, W. G. Foster, S. P. Weir; the E. S. Whitman, manned by M. Aitkin, F. Baker, C. Brock, A. Mills, S. Hawley. Won by the Whitman, by one boat's length, in 7m. 16s.

The regatta was concluded with a gig and punt race. HUDSON RIVER YACHT CLUB.—An attempt was made last Monday to conclude the unfinished regatta of this club, but owing to a lack of wind the race was again postponed.

**MASSACHUSETTS—BEVERLY YACHT CLUB—Cotuit Port, Aug. 31.**—The thirty-fourth regatta for second-class yachts was sailed over a course of six miles as follows:

SECOND CLASS.

Name.	Owner.	Length.	Cor. time.
		Ft. In.	H. M. S.
Louise.....	J. T. Coolidge, Jr.....	12 7	1 52 20
Nina.....	F. C. Lowell.....	15 1	2 1 25
Garibaldi.....	C. R. Codman.....	15 3	2 10 27
Peep.....	E. J. Lowell.....	13	2 54
Shrimp.....	A. T. Perkins.....	12	Not timed
Mononoy.....	F. C. Lowell.....	12	Disabied.

**August 23.**—The thirty-fifth Union regatta for prizes presented by gentlemen of Cotuit Port. Course—From Colman's wharf, rounding a stakeboat off Perkin's wharf, to a stake-boat anchored one mile S. W. by S. off Perkin's Point and return; to be sailed over four times; distance nine miles; all the yachts in one class:

Name.	Owner.	Length.	Cor. time.
		Ft. In.	H. M. S.
Fairy.....	Dan'l Crosby, Osterville.....	22 62	1 45 43
Hero.....	C. H. Crosby, Osterville.....	22 01	1 49 24
Nixie.....	W. Crosby, Osterville.....	22 00	1 51 52
Warquit.....	A. T. Perkins, Beverly.....	21 06	1 54 26
Reasser.....	J. D. Cowell, Centerville.....	21 05	2 0 51
Fannie.....	J. Bearse, Centerville.....	21 00	2 1 55
Uncle Sam.....	John Adams, Osterville.....	19 09	2 1 53
Nausion.....	Geo. Fisher, Osterville.....	19 01	2 1 42
Leo.....	J. Crosby, Osterville.....	17 05	2 3 33
Bertha Grant.....	T. Fuller, Centerville.....	19 11	2 8 9
Garibaldi.....	C. H. Codman, Beverly.....	15 03	2 6 37
Uncle Sam.....	Wm. Lynch, Osterville.....	13 08	2 11 54
Bennie.....	A. Small, Cotuit Port.....	16 04	2 9 4
Nina.....	F. C. Lowell, Beverly.....	16 01	2 10 13
Fannie.....	E. S. Crosby, Osterville.....	14 00	Not timed
Nellie.....	Tolman, Little River.....		Not timed

**August 23.**—Thirty-sixth regatta and the third regular regatta. Course—From the judge's yacht off Curtis Point, leaving stakeboat, off Woodbury's Point on port hand, leaving Rock buoy on port hand; R. buoy No. 10, off Misery, on port hand; stakeboat off Woodbury's Point eastward and return, a distance of 8<sup>1</sup>/<sub>2</sub> miles. Course for third-class—From judges' yacht, leaving S. buoy on Chappel's Ledge on port hand, R. buoy No. 10 on port hand, and return, 5<sup>1</sup>/<sub>2</sub> miles. Wind, southeast, very light.

FIRST CLASS SLOOPS.

Name.	Owner.	Length.	Cor. time.
		Ft. In.	H. M. S.
Ariel.....	W. D. Sohler.....	23 6	2 09 52
Surf.....	Vice-Com. Goddard.....	21 9	3 5 34
Scud.....	Caleb A. Curtis.....	22 6	Not timed

SECOND CLASS CAT-BOATS.

	Length.	Cor. time.	
	Ft. In.	H. M. S.	
Perl.....	Geo. Lee.....	18 6	3 14 35
Ira.....	F. P. Emery, Jr.....	15 2	3 16 41
Mystery.....	James Parker, Jr.....	19 1	3 17 54
Water Lily.....	P. Grant, Jr.....	19 9	3 18 6
Ibis.....	Fred. Cunningham.....	19 4	3 28 28

THIRD CLASS CAT-BOATS.

	Length.	Time.	
	Ft. In.	H. M. S.	
Bessie.....	Geo. P. Upham, Jr.....	16 9	2 15 6
Nora.....	I. P. Snelling.....	16 4	2 12 37
Frolic.....	R. H. Gibbs.....	16 8	2 28 18
Edith.....	G. T. Dexter.....	16 11	2 38 50
Blubbell.....	W. Lloyd Jeffries.....	16 6	2 34 3
Rose.....	F. Elliot Cabot.....	15 6	2 34 18
Midget.....	H. R. Shaw.....	14 4	Not timed
Brenda.....	H. F. Sears.....	16 5	Not timed

In this class only Edith, Rose and Brenda got off within time, the others all started after the time was up, and so lost the difference; Nora and Midget losing one minute, Bessie and Frolic two, and Blubbell three and a half. In the second-class Ira also lost a minute and a half.

The third class race was not made in time, and was resailed the following day. Course—From the judge's yacht off Curtis' Point, rounding Chappel's Ledge buoy and buoy No. 10 off Misery Island and return, five and a half miles south-southeast.

Name.	Owner.	Length.	Time.
		Ft. In.	H. M. S.
Bessie.....	Geo. P. Upham, Jr.....	16 9	1 24 10
Nora.....	I. P. Snelling.....	16 4	1 31 57
Blubbell.....	W. H. Jeffries.....	16 6	1 32 26
Rose.....	F. E. Cabot.....	15 6	1 38 45
Midget.....	H. R. Shaw.....	14 4	1 43 6

The champion pennants for the year have been won by the Ariel, Water Lily and Bessie in the first, second and third classes respectively.

**Tiffany & Co., Silversmiths, Jewelers, and Importers,** have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. **TIFFANY & CO.** are also the agents in America for Messrs. **PATER, PHILIPPE & Co.,** of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. **Union Square, New York!**



The Kennel.

BALLARD'S FLEA KILLER! DESTRUCTION OF FLEAS On Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety.

Price 50 Cents per Package. Will be sent postage paid on receipt of price.

LAZELI, MARSH & GARDINER, 10 GOLD STREET, NEW YORK.

SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped. F. O. de LUZE, 18 South Willam Street, N. Y., Sole Agent.

To Sportsmen north West: Spratt's Biscuits can be procured of F. P. Taylor, 72 East Madison street, Chicago.

Hotels and Resorts for Sportsmen.

DAYFIELD—The Great Health and Pleasure Resort of the Northwest. Beautiful scenery, Pure Atmosphere, Delightful Climate, Fishing, Boating, Sailing and Shooting.

SEA-SHORE HOME BOARDING HOUSE, by C. F. HUTCHINGS, at Short Beach, Branford, Conn. Sea food, comfortable house and beautiful view of the sea.

Island House, BELLOWS FALLS, VERMONT.

Broad piazzas, large airy halls, charming walks and drives, beautiful scenery, pure mountain air and cool breezes. Send for circular.

Thousand Island House, RIVER ST. LAWRENCE.

ALEXANDRIA BAY, JEFFERSON CO., N. Y., and in the immediate vicinity of the far-famed Thousand Islands, will be opened for the reception of guests June 1st, 1877.

KINSEY'S ASHLEY HOUSE, Barnegat Inlet, N. J.

The only house near the celebrated Blue Fish, Sheepshead, Black Fish, and Sea Bass grounds. Address for engaging rooms, circulars, or notice of reliable good fishing, KINSEY, Ashley House, Barnegat.

Bay Shooting of all Varieties.

SILNNECOCK BAY THE BEST SHOOTING GROUND IN THE VICINITY OF NEW YORK.

Wm. N. Lane respectfully informs his many friends that, having largely added to the Springley House or Sportsmen's Retreat, he is prepared to entertain and take care of his guests in simple manner.

SEA CLIFF HOUSE, SEA CLIFF, L. I., OPENS for the season 1877, on May 1, at rates to suit the times.

Hotels and Resorts for Sportsmen.

Metropolitan Hotel, WASHINGTON, D. C. Carrollton Hotel, BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICOLAS, N. Y.

CROSSMOR HOUSE. ALEXANDRIA BAY, JEFFERSON CO., N. Y.

THIS HOUSE, RECENTLY REBUILT AND elegantly furnished, is now open for visitors. It is located in one of the most delightful places in the Thousand Islands region.

COUNTRY BOARD and sporting; good rooms, shady pine woods, mountain air, lake fishing, trout in streams, deer, partridge, and other shooting.

Sportsmen's Routes.

Central Railroad OF NEW JERSEY.

NEW YORK AND LONG BRANCH DIVISION. REDUCED RATES FOR THIS SEASON.

Express Train Time, between New York and Long Branch, 1 hour and 20 minutes.

THROUGH PULLMAN PARLOR CARS.

Commencing June 25, 1877, trains leave New York, foot of Liberty street, for Red Bank, Long Branch, Ocean Grove, Sea Girt, etc., at 5:00, 7:44, 9:00, 11:45 A. M., 3:0 (Express), 4:00, 4:45, 6:00 P. M.

TROUT FISHING!

The Wisconsin Central Railroad THROUGH TO LAKE SUPERIOR.

EXCURSION TICKETS from Chicago to Ashland and return for \$20 are sold at 63 Clark street, or the C. M. and St. Paul, Madison Street Depot, Chicago; also at low rates from Milwaukee.

THE NEW HOTEL at Ashland, the "Chequamegon" will be opened in July. Meantime there is accommodation at the smaller houses.

NORTHERN RAILWAY OF CANADA AND COLLINGWOOD LINE.

Only first-class route to the beautiful inland lakes of CANADA AND LAKE SUPERIOR. The Fine UPPER CABIN STEAMERS of this line leave ON SUNDAY EVERY TUESDAY and FRIDAY, at 6 P. M.

AT CENTRAL VERMONT RAILWAY OFFICE, 322 Washington street, Boston. BARLOW CUMBERLAND, GENERAL AGENT.

Sportsmen's Routes.

Old Dominion Line.

The steamers of this line reach some of the finest waterfowl and upland shooting sections in the country. Connections direct for Chincoteague, Cobb's Island, and points on the Peninsula.

Fall River Line, FOR BOSTON AND THE EAST.

MAMMOTH PALACE STEAMERS BRISTOL AND PROVIDENCE. The best and most direct route to the Fishing and Hunting resorts of Cape Cod, and Rangeley, and Moosehead Lakes, etc.

BORDEN & LOVELL, Agents. GEO. L. CONNOR, Gen'l Pass' Agent.

FOR FLORIDA

FOR THROUGH TICKETS TO FERNANDINA JACKSONVILLE, ST. AUGUSTINE, SANFORD, ENTERPRISE, and intermediate landings on ST. JOHN'S RIVER and intermediate points in FLORIDA.

Philadelphia and Southern Mail S. S. Co., 416 South Delaware Avenue, Phila.

"The Bermudas."

NOW A FAVORITE AND DELIGHTFUL WINTER RESORT, it is reached in seventy hours from New York and being surrounded by the warm waters of the Gulf Stream enjoys an equable temperature of about 70 deg.

Montclair & Greenwood Lake Railway Time Table.

Trains leave New York, 8:30 A. M., 4:30 P. M. Connect with boat, and arrive at Abington 11:00 A. M., 7:05 P. M.

LONG ISLAND RAILROAD.

Ferryboats leave James' Slip, N. Y., thirty minutes, and from Thirty-fourth street, E. R., fifteen minutes previous to departure of trains.

Brook Trout Grayling and Black Bass Fisheries OF NORTHERN MICHIGAN, VIA Grand Rapids and Indiana Railroad.

For maps, tickets, and general information, apply to L. H. NUTTING, Gen'l Eastern Agent, 294 Broadway, New York. T. J. ANDERSON, Gen'l Pass. Agent, J. Topeka, W. F. WHITE, Gen'l Ticket Agent, J. Kansas.

Sportsmen's Routes.

TO SPORTSMEN:

THE PENNSYLVANIA R.R. CO. Superior Facilities

afforded by their lines for reaching most of the TROUTING PARKS and RACE COURSES in the Middle States.

Pennsylvani Railroad Company ALSO REACH THE BEST LOCALITIES FOR GUNNING AND FISHING

IN PENNSYLVANIA and New Jersey. EXCURSION TICKETS are sold at the offices of the Company in all the principal cities to KANE, KENOWA, BEDFORD, GREENSBURG, LITTON, MINNEQUA, and other well-known centers for

TUCKERTON, BEACH HAVEN CAPE MAY, SCQUAN, and points on the NEW JERSEY COAST renowned for SALT WATER SPORT ANKER PIN AND FEATHER.

NEW JERSEY AND NEW YORK RAILWAY.—For New York via Erie Ferry, foot of Chambers street.

For Haverstraw and Stony Point—8:45 A. M., 1:00, 4:15 and 5:15 P. M.

For New York City—7:45 A. M., 1:00, 4:15 and 5:15 P. M. Sundays—8:45 A. M. and 6:45 P. M., stopping at all stations.

These trains leave Twenty-third street as follows: 8:15 A. M., 12:15, 3:45, 4:45, and 6:15 P. M. Sundays, 8:45 A. M. and 6:45 P. M.

STONINGTON LINE. FOR BOSTON AND ALL POINTS EAST. FOR THROUGH TICKETS TO FERRISBURGH, NARRAGANSETT leave Pier 33 North River, foot Jay St. at 5:00 P. M.

PROVIDENCE LINE. Freight only, steamers leave Pier 37, North River, foot Park Place, at 4:30 P. M.

A BUFFALO HUNT

Atchison, Topeka and Santa Fe Railway.

THE NEW ROUTE FOR KANSAS & COLORADO

SPECIAL ATTENTION TO SPORTSMEN.

THE "FISHING LINE."

Brook Trout Grayling and Black Bass Fisheries

Grand Rapids and Indiana Railroad.

Brook Trout Season opens May 1st.

Grayling Season opens June 1st.

The Hotel Accommodations, which plain, are, as a rule, good, far surpassing the average in countries new enough to afford the finest of fishing.

Dogs, Guns, and Fishing Tackle Carried Free at owner's risk. Camp Cars for Fishing Parties and Families at low rates.

J. M. PAGE, G. & T. Grand Rapids, Mich. A. HOPPE, Eastern Pass' Agent, 116 Park St., Philadelphia.

Gunpowder.

ORIENTAL POWDER MILLS MANUFACTURERS OF ALL KINDS OF GUNPOWDER

Office—13 BROAD STREET, BOSTON.

BRANDS—DIAMOND GRAIN. FALCON DUCKING. WILD FOWL SHOOTING. WESTERN SPORTING. (Oriental Rifle.)

The "Oriental" powder is equal to any made; in no expense is spared to make the best.

BRANCH OFFICES.

J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. Cobb & Wheeler, Agents, 9 State St., Chicago, Ill. C. J. Chapin, Agent, 218 Locust St., St. Louis, Mo. Agents in the principal cities in the United States.

Lafin & Rand Powder Co.

No. 26 MURRAY ST., N. Y.

Sole Proprietors and Manufacturers of

Orange Lightning Powder.

No. 1 to 7, strongest and Cleanest made, in sealed 1 lb. canisters. Higher numbers specially are recommended for breech-loading guns.

Orange Ducking Powder,

For water-fowl, strong and clean. No. 1 to 5 in metal kegs, 8 1/2 lbs. each, and canisters of 1 and 6 lbs. each.

Orange Rifle Powder.

The best for rifles and all ordinary purposes. Sizes, FG, FFG and FFFG, the last being the finest. Packed in wood and metal kegs of 25 lbs., 12 1/2 lbs. and 6 1/2 lbs., and in canisters of 1 lb. and 1/2 lb. All of the above give high velocities and less residuum than any other brands made, and are recommended and used by Capt. A. H. BOGARDUS, the "Champion Wing Shot of the World." BLASTING POWDER and ELECTRICAL BLASTING APPARATUS. ITALY POWDER of all kinds on hand and made to order. Safety Fuse, Frictional and Platinum Fuses. Pamphlets, showing sizes of the grain by wood cut, sent free on application to the above address.

HAZARD POWDER CO. MANUFACTURERS OF GUNPOWDER.

Hazard's "Electric Powder." Nos. 1 (fine) to 6 (coarse). Unsurpassed in point of strength and cleanliness. Packed in square canisters of 1 lb. only. Hazard's "American Sporting." Nos. 1 (fine) to 3 (coarse). In 1 lb. canisters and 6 1/2 lb. kegs. A fine grain, quick and clean, for upland prairie shooting. Well adapted to shot-guns. Hazard's "Duck Shooting." Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzle or breech-loaders. Hazard's "Kentucky Rifle." FFG, FFG, and "Sea Shooting" FG, in kegs of 25, 12 1/2 and 6 1/2 lbs, and cans of 5 lbs. FFFG is also packed in 1 and 1/2 lb. canisters. Burns strong and moist. The FFFG and FFG are favorite brands for ordinary sporting, and the "Sea Shooting" FG is the standard Rifle powder of the country.

Superior Mining and Blasting Powder. GOVERNMENT CANNON & MUSKET POWDER: ALSO, SPECIAL GRADES FOR EXPORT OF ALL REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER. The above can be had of dealers, or of the Company's Agents in every prominent city, or wholesale at our office. 88 WALL STREET, NEW YORK.

THE New Dittmar Powder.

THE CHAMPION POWDER OF THE WORLD For all off-hand shooting at short and long ranges. Unsurpassed for Cleanliness. Pleasant to shoot on account of little recoil and report. Desirable for hunting on account of little or no smoke. Unequalled for rapid firing, as it does not foul and heat up the barrel as black powder. Great accuracy, penetration and good pattern. Safer than black powder. Address CARL DITTMAR, NEPONSET, MASS.

NEW YORK, July 10, 1877.

EDITOR FOREST AND STREAM AND ROD AND GUN: Please say, for the information of some of my friends who may be misled by current statements, that I am still on the same powder for all out-door shooting, which I have used for several years past, never having risked the use of the nitrated powders except when shooting in a confined space in-doors, when the smoke from any regular powder would produce a small rather offensive to some people, and cause somewhat greater obstruction to vision.

CAPT. A. H. BOGARDUS, Champion Wing Shot of the World,

Gunpowder.

Warren Powder Mills,

MANUFACTURERS OF BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS—Eureka, Continental, "Border Rifle," Snap-Shot, and Warren Sporting Cannon and Musket, U. S. Standard. The above can be had of the dealers, or at wholesale at the office, 27 Doane street, Boston, Mass., and of the agents, JOHN P. LOVELL & SONS, corner of Washington, Cornhill and Braintree street, Boston, Mass., jy19

English Sporting Gunpowder.

CURTIS & HARVEY'S DIAMOND GRAIN. Nos. 2, 3, 4, 5, 6, 7 and 8. Superior Rifle, English Rifle, and Col. Hawker's Ducking. W. STITT, 51 Cedar street, N. Y. Agent for the United States.

Fishing Tackle.

Conroy, Bissett & Malleson

65 Fulton Street, New York. Factory—Foot South 5th Street, Brooklyn, E. D.

Six Strip Split BAMBOO RODS.

ETHER ROUND OR HEXAGONAL. ENAMEL ALL PRESERVED ON THE OUTSIDE. QUALITY GUARANTEED.

The annexed list will show the reductions we have made. We quote:

Table with 3 columns: Item, Price, Formerly. Includes Fly Rods, Black Bass Rods, Salmon Rods.

These Rods are, in all their parts, WHOLLY MADE BY HAND. Positively no machinery is used in any part of their construction. SEND FOR CIRCULAR.

We have but one grade of these Rods—the best in the market.

PHILADELPHIA Fishing Tackle House.

A. B. SHIPLEY & SON, 503 COMMERCE STREET, PHILA. Manufacturers of FINE FISHING TACKLE A Specialty of the Celebrated Green Heart Wood for Amateur Rod Makers. Rod Mountings in Sets for 75c. to \$0.75.

RODS, REELS, ETC., REPAIRED. Shipley's Self-Hooking Elastic Snudis, "catch every fish that bites." Send for sample. For Trout on gut, 10c. each, 75c. per doz. For Bass on double gut, 12c. each, \$1 per doz. Highest premium at Centennial, 1876, and Franklin Institute, 1874.

The perfect revolving NEW TROLLING SPOON. The best in the world. It had to be found at your fishing tackle store, these spoons will be forwarded by the manufacturer by mail. Price, \$1 each. JOHN H. MANN, Syracuse, New York. jy25

COMPETITION IS THE LIFE OF TRADE.

J. B. CROOK & CO.,

FISHING TACKLE, 50 FULTON STREET, NEW YORK Makes the Immense Reductions.

Greenheart Rods for Trout and Bass Fishing, \$15 to \$50. Ash and Lancewood Rods for Trout and Bass Fishing, \$7 to \$12. Everything else in proportion. Goods sent C. O. D. to all parts of the United States and Canada.

H. L. LEONARD, BANGOR, MAINE,

Manufacturer of every variety of FINE RODS FOR SALMON, BASS AND TROUT FISHING.

Split Bamboo Rods a Specialty

Great reduction in prices. Trout Rods, full mounted, \$30; formerly \$50; other rods in proportion. Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof ferrule," and warranted against imperfections in material and workmanship. Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancewood. MADE TO ORDER.

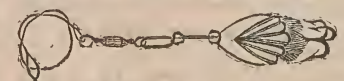
I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods. Also manufacturer of Patent Reels for Salmon and Trout fishing. The lightest, strongest, and jansomest Reels ever made. Full line of FISHING TACKLE always on hand. Send for circular and price list.

167

Fishing Tackle.

ABBEEY & IMBRIE, ANDREW CLARK & CO. FINE GOODS FOR SPORTSMEN A SPECIALTY. NEW YORK, LONDON, REDDITCH, HAVANA AND RIO JANEIRO. 48 Maiden Lane N. Y.

SKINNER'S New Fluted Bait.



The best bait used for Bass and Pickerel Fishing. Bass size, 75 cents; Pickerel size, \$1 each, by mail post-paid, on receipt of price. Eagle Claw, for catching Fish and game, samples by mail, 35 and 75 cents. Send stamp for illustrated price list of Fishing Tackle and Sporting Goods.

FISH & SIMPSON, 132 NASSAU ST., NEW YORK.

B. GREENWOOD,

Manufacturer of Aquaria Greenhouse and Aquarium Cement, and dealer in Fish Food, Gold Fish, Water Plants, Fish Globes, and aquaria stock of all descriptions. Canaries, Cages, Rustic Baskets, Bird Houses, Sea Shells, etc., wholesale and retail. Nos. 11 1/2 to 13 COLLEGE PLACE, Near Murray St. New York, N. Y.

McBride Flies.

MEDAL AND DIPLOMA FROM INTERNATIONAL EXHIBITION, PA., 1876, DECREE FOR

EXCEEDINGLY NEAT WORK WITH SOLIDITY OF CONSTRUCTION.

A fine assortment of FLIES for Trout, Salmon and Bass constantly on hand. Also Casing Lines. Flies carefully selected for the different seasons and waters.

Goods promptly made to order from any pattern desired. Address,

Miss Sara J. McBride, Married, Monroe County, N. Y. W. HOLBERTON, Sole Agent for New York City. jy1



THE NATURAL FOOD FOR BLACK BASS.

I have, after careful study, at last found a bait that excels all others for taking black bass. Sample by mail, 75c. The above cut represents the bait

J. F. MARSTERS,

Manufacturer, 125 Nassau Street, New York. Send for Catalogue of Sporting Goods.

DINGEE, SCRIBNER,

Manufacturer of Salmon and Trout Rods, Salmon and Trout Files Casting Lines, Landing Nets, Gaffs, etc. Best Greenheart Rods at \$9, \$11 and \$13 each. Waterloo Street, St. Johns, N. B. jy12 em

The Ludlow Trout Co.

Will this year take from one to two million brook trout eggs (ready for shipment from Nov. 10 to Dec. 20) at lowest prices. Send for price list. Address

B. FREEBURG, SUPERINTENDENT, Ang23 3in Ludlow, McKean County, Pa.

CARD.

Dr. Fowler's Celebrated Six Strip Bamboo Fly-Rods.

Improved and finished without cutting away the enamel. The strongest and handsomest rods in the world. Private orders solicited for all kinds of fine tackle. Rods sent per express on approval. Send for circular. A. H. FOWLER, Ithaca, N. Y.

Sportsmen's Goods.

BOSTON SHOOTING SUIT.

Manufactured only by

G. W. SIMMONS & SON, BOSTON.

Each article—coat, trousers, vest and hat—have the name and manufacturer's address stamped upon it, and no suit is genuine without it bears this imprint.

The suit can be sent, securely packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit.

We make no discount except to the trade. We make but one quality, and that is the VERY BEST. The price of the suit complete is \$13.

The suit consists of coat, trousers, vest, and choice of either cap with havelock, or hat.

The material is of the best quality of duck, waterproofed by a patent process. The color is that known as "dead grass shade."

The seams and pocket corners are riveted, and nothing is neglected to make the whole suit complete in every way.

OUR PATENT DECOYS

have entirely superseded the old-fashioned cumbersome, wooden decoys. The birds are hollow, and six of them occupy about the space of one wooden decoy. The Duck Decoys of all kinds are \$12 per dozen: geese, \$3 each; yellow leg, \$4.25 per dozen; black breast plover, \$3.75 per dozen; red breast plover, \$3.75 per dozen; golden plover, \$3.75 per dozen; turnstone, chicken plover, etc., \$3.75 per dozen; sandpipers, \$3.50 per dozen. We are now making standing geese for field shooting.

THE HUNTER'S TENT

is made of tan-colored duck; light, easily transported. Size, 7 ft. by 8 ft. Price, \$10 complete, made on the umbrella principle, folding into a neat roll 3 feet long.

In the judges' report at Philadelphia they were commended for excellence in every part. Very novel and practicable; adapted to all out-of-door purposes where lawn, beach, hunters and camp tents are used; quick folding; all sides strongly fortified; enables them to stand against wind and rain. Rev. F. B. Savage, of Albany, N. Y., who camps out in Florida in winter, and the Adirondacks in summer, writes this about the tent:

ALBANY, July 31, 1877. Sirs—I have just returned from a three-weeks' camping expedition in the Adirondack, and have had the three tents bought of you put to the severest tests of exposure both as to wind and storm, and I do most unhesitatingly say they are the most complete thing of the kind I ever used. 1st. They are easily put up or taken down. 2d. They are perfectly waterproof. 3d. They are a good height, and all the room is available. Our party asked for no better. They were admired by all who saw them, and one party insisted on buying one of ours that was to spare. Rev. Dr. Duryea, of Brooklyn, and the Rev. Dr. Irwin, of Troy, both indorse what I say about your tent. With kind regards, yours truly, F. B. SAVAGE.

Tan-Colored Leather Pliable Waterproof Suits.

In Shooting Coats, Jackets, Breeches, Vests and Hats at following prices: Coats, \$22; Breeches, \$15; Jackets, \$13; Vests, \$12. These form the most elegant shooting equipment known. They are indestructible.

A recent notice in the FOREST AND STREAM, from a correspondent, says: Whenever a sportsman, or even one who does not claim the distinction, finds a really good and useful article, it is no more than fair that he should let others have the benefit of his knowledge. For this reason we would call attention to the Tan-colored Leather Shooting or Fishing Suits, made by G. W. SIMMONS & SON, of Boston, Mass., the manufacturers of the famous "Boston Shooting Suit."

I saw these goods advertised in your paper, and wrote to the parties for samples. I found the material as soft and pliable as a piece of kid. I tested it by soaking in water twelve hours, and found it as nearly waterproof as one could desire, and after drying was happily surprised to find it had not stiffened in the least. I have since then received a full suit—coat, vest and breeches—ordered by letter from measure taken by myself.

The goods are splendidly made, well lined with flannel; in fact I do not see how they can be improved.

My friends are unanimous in their verdict that G. W. Simmons & Son's leather goods cannot be excelled in quality or beauty in price.

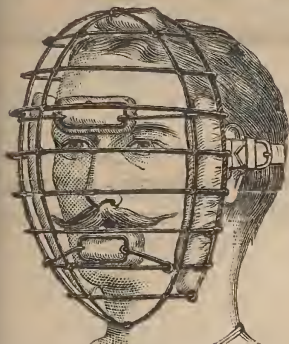
For every kind of sportsmen's goods address

G. W. SIMMONS & SON,

Oak Hall, Boston, Mass.

Sportsmen's Goods.

PECK & SNYDER'S



Base-Ball Catcher's Mask,

Now used by all the prominent catchers when playing behind the bat.

We send samples, C. O. D., for \$3. Enclose stamp for the *Athletes Journal*, giving our latest prices of all goods in the sporting line.

Address PECK & SNYDER, Manufacturers, Aug 6 3m 124 Nassau street, N. Y.

COMPLETE OUTFITS

FOR

Camping, Shooting & Fishing

Fine fishing and shooting tackle, camp stoves, leather, rubber and canvas goods and suits for sportsmen. Tents, portable boats, moccasins, etc.

AGENTS FOR THE FOX GUNS.

The best and strongest American guns yet made. Sole agents for the celebrated Mordie flies, Holberton's fly rods, black bass and trout flies, and full length fly books; Purdy's glass ball traps and bull-eye balls, etc. Send ten cents for illustrated catalogue, with rules for glass ball shooting, and hints on camping, shooting and fly-fishing for trout and black bass.

W. HOLBERTON,

P. O. Box 5, 109, 102 Nassau street, N. Y. Aug 23 tf.

GOOD'S OIL TANNED MOCCASINS.



The best thing ever worn by sportsmen. Not injured by wetting and drying—always soft and easy to the feet. 4 different styles. Prices adapted to suit the times. Send for illustrated circular and price list. (Successor to Frank Good.) MARTIN S. HUTCHINGS, P. O. Box 305, Dover, N. H.

H. WALDSTEIN OPTICIAN,

545 Broadway, New York,

Has received the highest award at the Centennial Exposition for his fine Glasses, especially Opera and Field Glasses. His display at 545 Broadway of fine

TELESCOPES, FIELD, MARINE and OPERA GLASSES, MICROSCOPES, SPECTACLES and EYE GLASSES, ARTIFICIAL HUMAN EYES, Etc., is really wonderful. Illustrated catalogue mailed on receipt of postage of four cents.

ESTABLISHED 1840.

Gale's Patent Tents,

Adapted to all purposes where Lawn, Beach, Hunters' and Camp Tents are used; are eight feet high, seven feet square at bottom, will lodge four persons; can be set up or taken down and packed in five minutes, making a bundle four feet long, of twenty-five pounds weight. The pole in two parts, is joined together by a brass tube. They are wonderfully light, and yet very strong, and are the handiest and cheapest tents extant. Samples of goods and price list sent free, and the tent sent on receipt of price, for C. O. D. Prices from \$10 to \$15.

GALE & CO., Boston, Mass.

Painting.

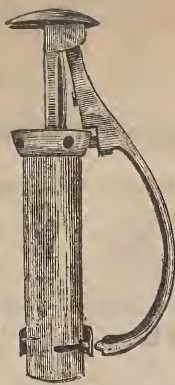
PAINTING.

EVERY ONE THEIR OWN PAINTER.

50 Per Cent. Saved.

We are manufacturing a very fine Pure Ready-mixed Paint, mixed in such a manner that its ordinary stable or farm hand can make as good a job of painting a painter can with paint mixed in the old way. This is because our paint does not set quick, and thus show marks of the brush. We sell it lower than materials can be bought in the ordinary way, and pay freight in certain cases orders. Any gentleman wishing to paint up his buildings at small expense had better write, and have sent free our book.

Address 200 Front street, INGERSOLL PAINT WORKS. 1821



STODDARD'S CARTRIDGE LOADING IMPLEMENT,

COMBINING SEVEN DIFFERENT TOOLS, Cap Expeller, Recapper, Loader and Tube, Creaser, Cutter, Crimper and Shell Extractor.

NO. 10 NOW READY.

Performing all the operations possible in the manipulation of Paper or Metal Shells for Breech-Loaders.

Length, 4 1/2 inches. Nickel Plated. Weight 10 ounces.

All the operations are perfect, and suitable for any shell.

AWARDED BOTH MEDAL AND DIPLOMA AT CENTENNIAL EXHIBITION.

PRICE, \$6.

Circulars sent on application. Send postal order or check to

C. J. STODDARD & CO.,

Lock-Box 192, Washington, D. C.

LIBERAL DISCOUNT TO THE TRADE.

Cotton Duck, every width & weight, cut to any length, Arrangement of Tent Catalogue.

Oiled do. manufactured by steam power. No. 1. Artist's & Camping.

Saturated, not enameled. No. 2. Military.

Slings for disabled Horses, No. 3. Lawn and Garden.

thoroughly harnessed, \$10 each. No. 4. Camp Meeting & Chapel.

Lock Pouches, Messenger Bags, No. 5. Circus & Show.

Nose Bags at wholesale, anything and No. 6. Base Ball, Cricket, &c.

everything that can be made No. 7. Sundries.

of canvas. John Boyle, 192, 201, 203 Fulton St. N. Y.



Palmetto Tents, 10 feet square, \$20 each. 7 1/2 " " 7 " Boyle's U. S. Tent and Mail Bag Manufy, FULTON ST., NEW YORK.



Chas. F. ORVIS, MANUFACTURER OF

FINE FISHING TACKLE,

MANCHESTER, VERMONT.

VERY STRONG AND DURABLE ARTIFICIAL FLIES.

Fully Equal to any Made.

For Trout, \$1.50 per dozen. Triple Hook Flies, \$3.50 per dozen. For Bass, \$2.50 to \$4.50 per dozen. Any variety to order per sample.

Refer to Dr. J. R. ROMERYN, Keeseville, N. Y.; Com. L. A. BEARDSLEE, Little Falls, N. Y.

SEND FOR DESCRIPTIVE CATALOGUE. MENTION "FOREST AND STREAM."

THE UNITED STATES CARTRIDGE COMPANY,

LOWELL, MASS.

Manufacturers of the CENTRAL FIRE, SOLID HEAD, BRASS SHELL, RE-LOADING CARTRIDGE,

Used by the Army and Navy of the United States and several Foreign Governments. All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue. WALLACE & SONS, Agents, N. Y. City.

VANITY FAIR FOR MEERSCHAUM AND CIGARETTES.

Our Cigarettes are as fine as can be produced. Only the best French Cigarette paper is used, which is free from mineral and other injurious substances.

TRY L'AMERIQUE, THE BEST CIGARETTES, AND JUST THE THING FOR SUMMER SMOKING.

Mixture of Perique and Vanity Fair. Best French Cigarette Paper only used. Sample by mail, Fifteen cents. Ask your dealer for them.

WM. S. KIMBALL & CO., Rochester, New York.

Folding Pocket Mosquito Bar.

A most ingenious device for campers, tourists and travelers. Can be used at home or abroad, and will last a life-time. It weighs less than a pound, and no trouble to carry. Can be put up or taken down in half a minute. No camping outfit complete without it. Every one warranted. All complete, with net, \$1.50. Sent on receipt of price. Address

A. A. COWING, Watkins, N. Y.



HAMMOCKS

FOR LAWNS AND EXCURSIONS

Tennis, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seetees, etc.

Send for Illustrated Circular. G. WEBSTER PECK, Manufacturers' Agents, 110 Chambers St., N. Y.

Sportsmen's Goods.

J. F. MARSTERS, Manufacturer of Superior

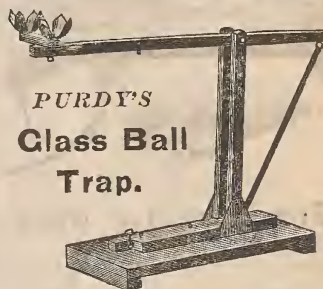
ARCHERY.



Ladies' Lance wood bows, beautifully finished, push-handle, horn-tipped, dark color; 4-foot, \$2.50; 4 1/2-foot, \$3.00; 5-foot, \$3.50. Gent's same as above, 5 foot, \$3.50; 5 1/2 foot, \$4.00; 6-foot, \$4.50. Ladies' Arrows, plain wood, three feathers; 24-inch, \$1.50 per doz.; 25-inch, \$1.75 per doz. Gent's arrows, plain wood, three feathers, 25-inch, \$1.75; 28-inch, \$2 per doz. Superior polished and painted, \$2, \$3, \$1, \$5, \$6 per doz. Ladies' gloves with round tips, \$1.25; gent's, \$1.50 each. Ladies' arm-guards, with elastic, \$1.25; gent's, \$1.50 each. Quivers for holding arrows, with belt, \$2 each. Straw targets, handsomely painted, see above cut, 18 inch, \$2; 21 inch, \$2.50; 24-inch, \$2.75; 30-inch, \$4.50; 36 inch, \$5. Ebony and rosewood box with quivers, 25c. 50c. 75c. each. Tassels, 50c. and 75c. each; bow strings each, 40c.; best bow, iron target stand, \$4 each. Archery Book of Rules by mail, 25c. Also on hand and for sale all the necessary woods and trimmings for amateurs to make their own bows. All the above goods are manufactured by me and are warranted. Goods sent C. O. D. to all parts of the country.

J. F. MARSTERS,

125 Nassau St., New York, and 45 Court St., Brooklyn. aug 9 tf



PURDY'S Glass Ball Trap.

(Patent Applied For.)

The best and cheapest trap offered, made of yellow pine, and every part waria red. Throws single or double balls in any direct an. Traps, each, \$3; solid oak trap, \$5.50; extra rubber springs, per doz., 75c.; Purdy glass balls, per 1 1/2, \$2. The Purdy Glass Ball is the best and easiest ball to break, almost presents a flat surface to the shooter. Liberal discount to the trade.

W. HOLBERTON, Sole Agent,

Je21 3m 102 Nassau St., N. Y.

Amusements, Etc.

GILMORE'S CONCERT GARDEN.

OPEN EVERY NIGHT IN THE WEEK WITH

GILMORE'S GREAT MILITARY BAND.

SPECIAL PROGRAMMES SUNDAY EVENINGS.

50 cents admission. Boxes seating four, \$3.

Zoological Garden.

FAIRMOUNT PARK, PHILADELPHIA.

Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 9 1y

THE GREAT NEW YORK AQUARIUM.

Broadway and 35th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Anguillans. Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Labin in submarine performances. D. Lightfoot's orchestral concerts. Feeding the animals and fishes and other entertainments. Coney Island Aquarium now open for the summer.

Publications.

BINDERS.

Get your fine books bound. Art Journal bound uniform to London publishers' style. Pictorial, America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done in two or three days if required. E. WALKER'S SONS, 14 Day street.

"THE OOLOGIST,"

A MONTHLY JOURNAL DEVOTED EXCLUSIVELY TO BIRDS AND BIRDS' EGGS.

This magazine, the favorite of amateur ornithologists, is now in its third volume. It is replete with all that is new or recent in Ornithology and Oology, and publishes important papers on the rarer of our making collections of birds and eggs for scientific examination, as its columns are constantly furnishing descriptions of the eggs of new and rare species. Thirty cents a year, in advance. Specimen copies and prospectuses only on receipt of stamp. Advs. sent.

S. L. WILLARD & CO.,

167 Oneida st., Utica, N. Y.

Guns, Rifles, Etc.

SPORTSMEN

Will find a select assortment of Guns, Rifles, Revolvers, Ammunition, And all goods appertaining thereto.

Special Attention is Invited to Our New SMITH'S PATENT REVOLVERS,

In four sizes of 22, 32, 38 and 41-100 calis.

This new and elegant Arm combines simplicity durability, a perfect interchange of all its parts. The most critical inspection in process of manufacture, and with its patent improvements, make it the Most Desirable Revolver in the Market.

A COMPLETE ASSORTMENT OF

MAYNARD RIFLES SHOT GUNS ETC.

Send for Circular.

FOWLER & FULTON,

NO. 300 BROADWAY, N. Y.

M. FOWLER. HENRY FULTON.



THREE BARRELED

Breech-Loading Guns.

(TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

Represented by W. Holberton, 102 Nassau street, New York.

SEND FOR CIRCULAR.

W. H. BAKER,

Sept. 30:6m

Lisle, Broome Co., N. Y.

Sportsman's Depot.

(ESTABLISHED 1836.)

First premium at World's Fair at New York and Centennial Exhibition.



JOHN KRIDER,

N. E. Cor. Second and Walnut Sts., Phila.

GUNS, RIFLES, PISTOLS,

Fishing Tackle, Rods, Reels, Lincs, Hooks, Flies, Leaders, Snoods, Artificial Bait, Fly Books, Etc., Etc.

Salmon, Bass and Trout Flies Made to Order.

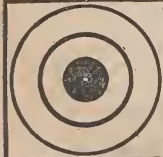
ALSO

"Kriders" Celebrated Center Enamel Split and Glued Bamboo Rods.

Birds' Eggs and Birds' Skins in Great Varieties—Taxidermy in all its branches.

Spratt's Patent Dog Biscuits

Repairing of all kinds. mar-17



Dennison's Targets

From 25 to 1000 Yd. Range.

TARGET PASTERS

AND

Score Cards.

SOLD BY

Dealers in Sporting Goods.

On receipt of TEN CENTS a 100-YARD TARGET will be sent by mail, with circular and sales plan, by DENNISON & CO., 198 Broadway, N. Y.



Convenient and Handy for attaching to Fishing Rods, Gun Cases, and all sorts of Sportsman's Baggage. Buy of your nearest Stationer or Newsdealer, or send 10 cts. for package by mail to

DENNISON & CO., 198 Broadway, N. Y.

Decoys

SEND FOR PRICE LIST OF THE FINEST DECOY DUCKS IN THE WORLD.

H. A. STEVENS, Manufacturer, P. O. box 154. Weedsport, N. Y. Aug 16 4t

DECOYS.

M. C. WELD,

Manufacturer of Decoy Ducks, Blucks and Mallard, 16 inches long; 50 cents each; nice ones.

ST MANHATTAN ST., Rochester, N. Y.

F. Wesson's Long & Mid-range Rifles, Breech-Loading.

THE BEST IN THE WORLD.



For full Particulars, Price List, etc.

Address,

F. WESSON, WORCESTER, MASS.

M. W. Robinson, Agent, No. 79 Chambers street, New York. Received Medal and Diploma at Centennial Exhibition, Philadelphia,

W. & C. SCOTT & SONS.



TRIPLEX.

First Prize Medal and Diploma, awarded at the Centennial Exhibition, for excellence of workmanship and material in their Premier Quality and medium grades. Their New Patent-Triplex Lever Grip Action and Compensating Lump. The attention of sportsmen is requested to the above new action. Its superior strength and solidity impart greatly improved shooting powers. Hard hitting being the desideratum required, is obtained by this powerful gun. Prices of the New Triplex Lever Grip, \$175, \$225 to \$400. Marked the Triplex 10-bore extra. Our highest grade is as usual

marked the PREMIER QUALITY

[Extract from FOREST AND STREAM, New York, December 26, 1876. Contributed by one of the Judges of Awards of Guns at the Centennial:]

"This action (The Triplex Lever Grip) combines in the highest degree strength and simplicity, and must rapidly secure the favor of all who test its merits.

COMPENSATING LUMP. Strongly recommended. It is invaluable, and should be ordered on every gun. Costs about \$10 extra. Choke-bore, medium or full. Our guns to be had of the principal dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.

Paper and Metallic Shells

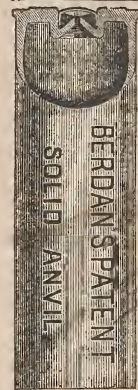
FOR

Breech-Loading Shot Guns,

Manufactured by the

UNION METALLIC CARTRIDGE CO., 1

BRIDGEPORT, CONN.



BERDAN'S PATENT SOLID ANVIL



STOREY'S PATENT MOVABLE ANVIL

THE STURTEVANT SHELLS are the easiest reloaded. Do not have to unscrew the head nor use an awl to remove the exploded caps. THE PATENT MOVABLE ANVILS, made of steel wire, will not bend or break.

THE BERDAN PATENT SHELLS, new model, with Hobbs' patent waterproof primers, never miss fire, and are highly prized by all that have used them.

PAPER SHELLS.—By repeated experiments and great outlay for improved materials, and machinery made expressly for the purpose, we can now warrant our BROWN PAPER SHELLS equal to any imported. They are sure fire, and will not burst in the gun. Inquire of any of the dealers in sporting materials for the U. M. C. Co.'s Shells. Not sold at retail by the manufacturers.

"St. Louis Conical Base Paper Shell."



Having made important improvements in our Shell, we can safely recommend them as equal, if not superior, in quality to any Paper Shell manufactured in this country or in Europe.

Among the advantages claimed for these Shells, are: A saving of 25 per cent. in the use of powder; also the great decrease in recoil. The sizes made are No. 10—2 1/2, 2 3/4, and 3 inches; No. 12—2 3/4, 2 3/4, and 2 3/4 inches. Longer for No. 12; \$1.30 for No. 10. Shells will be made at extra cost. They are not malleable. Sample, 100, sent by express on receipt of \$1.15 for No. 12; \$1.30 for No. 10. Factory and office, No. 2,289 De Kalb street, St. Louis, Mo.

St. Louis Patent Shell Manufacturing Company.

Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

SPORTSMEN'S CLUBS AND AMATEURS.

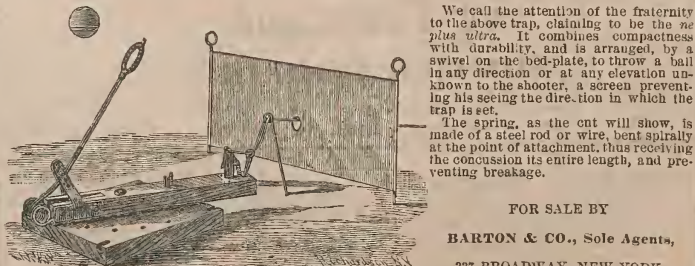
THE PATENT ROUGH BALL—The only Ball that will break sure when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 13, 1877.

Geo. E. Hart & Co.,

NEWARK, N. J.

TRADE SUPPLIED.

HUBER & MERWIN'S CHAMPION BALL TRAP.



We call the attention of the fraternity to the above trap, claiming to be the *ne plus ultra*. It combines compactness with durability, and is arranged, by a swivel on the bed-plate, to throw a ball in any direction or at any elevation unknown to the shooter, a screen preventing his seeing the direction in which the trap is set.

The spring, as the cut will show, is made of a steel rod or wire, bent spirally at the point of attachment, thus receiving the concussion its entire length, and preventing breakage.

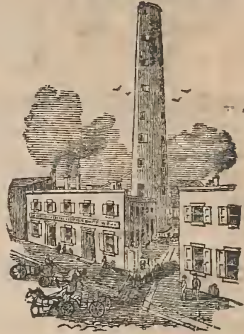
FOR SALE BY

BARTON & CO., Sole Agents,

387 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP, for durability and perfection of its operation, superior to them all, and take pleasure in recommending the "Champion" to sporting clubs and my friends. (Signed) Aug 9 ly IRA A. PAINE.

Founded July 4, 1806.



Thos. W. Sparks,

Shot & Bar Lead

MANUFACTURER.

Office 121 Walnut Street, Philadelphia.

Sportsmen's Goods.

W. H. HOLABIRD, Manufacturer of

Specialties in Clothing FOR SPORTSMEN, Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent, by mail, post-paid, \$5.

Holabird's New Game Bag; weighs 13 ounces. The most convenient and coolest garment ever offered to Sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2.

Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the latest and most desirable style.

Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods. jyl17t

NO MORE BROKEN GLASS!

Paine & Holberton's composite balls can be used in any trap. Patent applied for.

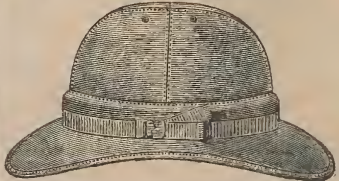
Price per 100.....\$3

This ball is perfectly harmless, and is a benefit to have rather than an injury. Many accidents have occurred from the broken glass balls, and every day it is becoming more difficult to find places to practice with the glass balls. These balls come packed 300 in a barrel.

W. HOLBERTON, Sole Agent,

P. O. Box 5,109. 102 Nassau Street, N. Y. Aug 23

SOLA HAT.



This Hat is made of waterproof duck, dead grass color, and in the same style as East India hats; is the coolest and best yet offered to sportsmen.

Absolute Guarantee against sun-stroke. For sale by all dealers in sportsmen's goods, or sent by mail, securely packed, postage prepaid, price \$3.

Address,

THOMSON & SON,

301 Broadway, New York.

P. O. box 1,016. Send stamp for illustrated catalogue of sportsmen's goods. Ag21f

Magic Lanterns and Stereopticons.

E. & H. T. ANTHONY & CO., 591 Broadway, N. Y., opposite Metropolitan. Stereoscopes and Views; Graphoscopes, Chromos and Frames; Albums, Photographs of Celebrities, Photographic Transparencies, Convex Glass, Photographic Materials, Awarded First Premium at Vienna and Philadelphia. doe25

# FOREST AND STREAM

## ROD & GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year.  
Ten Cents a Copy.

NEW YORK, THURSDAY, SEPTEMBER 6, 1877.

Volume 9.—No. 5.  
No. 111 Fulton St., N. Y.

### WHEN MAIDENS SHOULD LOVE.

Selected.

[From the Spanish of Gongora.]  
Spring-time passes fleetly, maidens,  
Spring-time passes fleetly.

MAIDENS, in our village home,  
Prattling ever thus so boldly,  
Be wary lest the time should come  
When age and trust shall treat you coldly.  
Fear to let youth's giddy hours  
Wile to over fond believing,  
For with cast and faded flowers  
Time his garlands still is weaving.  
Spring-time passes fleetly, maidens,  
Spring-time passes fleetly.

Lightly flit the years away,  
While, on eager pinions pressing,  
Harpies watch, and as their prey,  
Snatch from us each choicest blessing.  
The bloom, that but a day endures,  
Of truth like this gives ever warning.  
As evening's chilling blight obscures  
The charms that opened with the morning.  
Spring-time passes fleetly, maidens,  
Spring-time passes fleetly.

Take heed lest, when your fancies ween  
Of dawning's chimes they hear the greeting,  
Far other call life's peal should mean,  
And warn of night, and time's retreating.  
Then, bereft of beauty's glow,  
Lost your gentleness and graces,  
Your winning charms no more shall show  
Themselves as first in all our places.  
Spring-time passes fleetly, maidens,  
Spring-time passes fleetly.

An aged dame I've known, whose face  
Once was sweetly soft and blooming,  
Though now 'twere hard such charms to trace  
Through coat of false enamel looming.  
For her painted cheeks and brow,  
O'er which love's smile no longer twinkles,  
Shew like bishop's surplice now,  
Puckered into folds and wrinkles.  
Spring-time passes fleetly, maidens,  
Spring-time passes fleetly.

And yet another dame I know,  
Who had but one sole tooth remaining,  
And saw it sink, some days ago,  
Within a posset she was draining.  
Then, wailing thus, she cried—Oh, tooth!  
That long my soul has loved to cherish,  
A pearl I knew thee in thy youth,  
A worthless walf I see thee perish.  
Spring-time passes fleetly, maidens,  
Spring-time passes fleetly.

This lesson, hence, fond maids unfold,  
That ere cold, niggard age bereave you  
Of all your locks of ruddy gold,  
And but the pearl's gray lustre leave you,  
Tis yours to seek while you are sought,  
And love while you are ripe for wooing,  
Lest luck's bald hind-head set at naught  
The clutch of lools too late pursuing.  
Spring-time passes fleetly, maidens,  
Spring-time passes fleetly.

—C. in the Edinburgh Scotsman.

For Forest and Stream.

### Pencilings at Devil's Lake.

AS Kit North dons his Sporting Jacket, he observes that "there is a fine and beautiful alliance between all pastimes pursued by flood, field and fell." So, too, each should add its charms to a sport pursued by either of the others. The fragrance of purple clover, the beauty of wooded shores, illumined by bursts of sunshine on those cloudy days loved by all anglers, contribute to the piquant enjoyment felt by the true sportsman as he sees far out from his skiff the frantic leap of the hooked bass or pickerel. The thrill caused by a fierce tug upon a rod is doubly relished, when the music and tremor of the running reel come to one who has been prepared to enjoy them by a beautiful landscape. The gray fogs where keen dogs start the whirring covey of quail, the among hedge-rows, single trees, groves and forests rich in autumn colors, and blessed, it may be, with the sparkle of lake or river. Shooting on real prairie is comparatively monotonous, and so

is fishing out of sight of land. That sport is best which can be pursued among the combined beauties of forest and stream, and such sport may be found at Devil's Lake in Southern Michigan, about fifteen miles west of Adrian and ten miles north of Hudson on the Michigan Division of the Lake Shore Road. The stage which runs from Hudson north to Coontown leaves the *voyageur* within two miles of the lake, and mine hosts, Terney and Morley, landlords of the two dingy hotels of Coontown, will give him good accommodations. The lake is about four miles long and one mile wide, and innumerable camp-meetings, celebrations and picnics have combined with its natural beauty and excellent fishing to make it a public favorite. According to the lectures of General Cass, it was in 1760 the headquarters of a large branch of the tribe of Ottawa Indians. Pontiac, the Indian Napoleon, occasionally visited them, and there yet remain faint traces of the deeply worn trail which led to the French Post, then established at Detroit. The scars, found by the first settlers, upon the old maples thickly scattered over the region, the discovery of old brass kettles, the plowing up of numerous knives, stone hatchets, axes and arrow heads indicate that the Ottawa was numerous. Doctor "Jo" Welch, of Hudson, champion wing shot of the State, has a large collection of these relics, including stone hammers, pipes, spear-heads, drills and skinning instruments, together with iron knives stamped with a Greek cross—the early trademark of the Franciscan monks. The Devil's Lake tradition was well known to Joseph Beal, a recently deceased centenarian of the vicinity. He had befriended the savages, receiving substantial proof of their gratitude in the form of occasional wild turkeys and saddles of venison. He kept tobacco and pipes in his log cabin, and under the influence of the genial weed, several of the Indians had related the tradition, and freely answered his numerous questions. Long before its occupation by the Ottawas, the lake was known among the Indians as "Honey Water," and a great chief lived there with a numerous tribe. Game and fish were abundant, the maples yielded sugar, wild bees swarmed among the forest flowers, and were traced to ample stores of honey, while the banks of the birch-treed brooks shielded the mink, otter and beaver, whose furs enriched the couches of the wigwams. The chief's daughter had been presented with a canoe by the tribe, in the construction of which many rude but loving hands had assisted; the birch sides were inlaid with shells, the walnut paddles were carved with strange figures, and its happy owner loved to float far out on the lake at evening. One night, this canoe, propelled by an invisible power, came swiftly to the village beach at sunset, and instinctively the chief knew that his daughter was drowned. After a fruitless search for her dead body, the grief-stricken chief drowned himself in the waters as the first sunlight of the morning was gilding their surface. Now civil discord arose, as the braves fought for the vacant chieftainship; but in the midst of this deplorable strife, several Indians rushed wildly into one of the camps with the startling intelligence that on a bluff at the east side of the lake appeared a ghostly wigwam, and that Michi-Manitou, the Spirit of Evil, had doubtless reared it there for some purpose which could bode only evil to the tribe. The braves assembled in council, when ten warriors were appointed to examine the bluff. Crouched fearfully behind the protecting trunks of trees, the exploring party watched, until, at nightfall, they suddenly saw tongues of fire issuing from the lake, and the Evil Spirit, veiled by a thick smoke, presently emerged and disappeared in the heavy forest. Fairy music and hideous laughter and song were heard all night upon the crown of the bluff; but at daylight, the spirit returned to the deep water, and none of the frightened beholders could describe him. That morning one of the girls of the tribe attempted to cross the spot with a deer she had killed, and was taken from her boat to grace the Evil Spirit's submarine lodge. The Indians were terrified; a supernatural power wanted their maidens, their game and their fish, and they named the lake Michi-Manitou and left its beautiful but dangerous waters far behind them. And the forest around it remained deserted for many hundred moons, until Pontiac established there a village of Ottawas. But the lake is still waiting for some Irving or Cooper to perpetuate its story.

Michi-Manitou has not yet been described; no Wordsworth or Southey has celebrated its beauties in verse where the eye travels delighted over the pastures and wheat fields that melow to the reedy margin of the water. Many fish are caught

through the ice in winter, and in summer the spear is used in defiance of the laws. The rudest angler is almost sure of good sport, yet there are localities known only to a favored few where the fishing is superb. During a stiff breeze, and while there was running a very heavy sea for the oarsman in a light skiff, and anchored in twelve feet of water, the writer caught forty-six large bass in two hours and a half. The black bass is a fastidious fellow; he likes live bait—minnows—and is alarmed by a large line. Fine silk lines of a dark gray seem to answer very well, but the hooks should be large and perfect, as the struck fish often leaps three feet from the water, which he churns into foam-bells as he bounds blue-white into the air, in a desperate effort to shake himself loose. Little Will, an eight-year-old nephew, lost a monster fish this summer by reason of a defective hook, and he is inconsolable. At Devil's Lake, all classes meet on equal terms; the place is democratic. Yonder bright-eyed boy, who safely lands a bass in his skiff with a yell of delight, is a Hillsdale College student, familiar with logarithms, the Greek verbs and evolution. The bronzed man quietly eating his lunch under an enormous straw hat, by the iron Spring in Willet's Cove, is an Adrian banker, whose check is good for a hundred thousand dollars. That apparition in a woolen shirt and brown "overalls" may be a merchant and Legislator, who has swayed the Senates and managed the Michigan finances, an attorney who has in charge the legal affairs of great corporations, or a farm laborer who cannot read or write.

But darkness has caught us with pencil yet in hand, "Rome"—short for Romeo—our companion in sport, shouts that supper is ready. He has filled his eyes with smoke while making the damp leaves of the woods kindle a fire, whose ashes now yield baked potatoes. Green twigs make good toasting forks for the slices of ham, and the bread and cheese are washed down with liberal drafts of cider from the little brown jug. Truly this is a fine night! The wind is roaring in the tree-tops, and the waves are making a very respectable noise on the beach. Pounding down the bunches in our hay couch, we draw the buffalo robes over us and sleep soundly. Rome wakes at daylight and cries "Time!" Half-past three! Ye gods, what a miserably early hour for rising! A row of a mile in the gloaming takes us across to Darlington's Point, where we build a fire, eat a hearty breakfast, and rowing to the edge of blue water, let out the trolling lines into the heavy waves, tipped with white caps. The East is in all the glory of sunrise. Staid old farmers, do ye know that one who could transfer this scene to canvas would be immortal; that the views, changing and retiring in their perfection as we enter Willet's Cove, prove that beauty has here pitched her tents? But a fish has struck one of the hooks, and his leap in the early sunlight, ten rods away, makes Rome tremble with excitement. The diamond drops fall from the oars, which are steadily plied mile after mile, until Pennocks is reached. It is not a good day for trolling, but as we pass Black Bass Point, two fine fish are taken. Regal, with its many crescents, the low-lying shores of the western part of the lake appear, and as we glide across a bar and let out the lines, it is 11 o'clock. Eight miles of rowing and but three fish! A mile along the north shore, then the edge of a line of rushes is followed, curving to the south; forty rods more, and we will have finished the circuit of the lake—but the right hand line straightens, then the left. Glorious! Here is a leaping bass on each hook! The oars are dropped for the first time, and two happy trollers each pull in a fish, one a gigantic fellow, the largest bass of the season.

A half day's rowing bring us to lunch with a sharp appetite, and during the heat of the day we will watch from the grassy bank the long flight of the cranes, and the circles of the many white-winged gulls, whose cries come faintly over the waters. But, hark! a far-off sudden rumble; the water grows still and black, and a hush is among the leaves. There, in the west, sweeps on the light-colored advance line of a heavy thunder-shower. The tree-tops yonder are bowing their heads in a strong wind; not a breath here yet—but soon there is a fast, thick pattering on the woods, and as the storm breaks over us, the lake shore tumbles with heavy waves displayed by the flashes of lightning. Secure in our shanty, we listen to the long roll of the thunder, and before the storm is fairly over, Rome has rowed us far out on the lake, whose rain-washed and sunlit eastern woods are crowned by the bow of promise. The rods are speedily adjusted, while we float on

the glassy water, as it were between earth and sky. For two hours we fish with good success, then a lovely sunset. The shadows are peaceful; the silence of night lulls to repose the lake, which, like another sky, seems to contain its own luminaries of moon and stars. But, soft! The twang of orlocks! Passing yonder, in the strip of silvery light, is a belated swain returning to Chandler's Landing, his lady love singing in time with the dip of the oars, as their skiff moves through the scattering rushes.

When we take the train for the East, we feel that one who has suffered a two-years' imprisonment in a busy city office, surrounded by stone walls and breathing an atmosphere of smoke and dust, may be excused for his enthusiasm over the attractions of this sheet of water, bluff-guarded, rill and spring-ford, forest-girdled, wide-winding, with its many coves and grassy banks; its pure air, green pastures and still waters;—beautiful Devil's Lake!

*For Forest and Stream and Rod and Gun.*  
**MY FIRST SALMON.**

FOR several years I have been satisfied with the different kinds of fishing to be found in New England waters, salt or fresh, but for the last year I have been growing dissatisfied with the opportunities offered here, partly through the stories I have read in your columns and elsewhere, but more particularly by the stories I have heard from such salmon experts as our good brother Bracket of the Anglers Association and Fred Curtis, Esq., of our city, the lessee of one of the best salmon streams in Canada, the Dartmouth. So some three or four months ago I determined that I would take my first salmon this year—if I could. With the assistance of the last-named gentlemen and John Hicksen, Esq., the courteous warden, I was enabled to get the refusal of what is called the rough-waters of the Nepissiquit River, emptying into the Bay of Chaleur at Bathurst, N. B., from the 25th of June to the 3d of July inclusive, an excellent time in the season.

My party was soon made up and consisted of A. G. Hills, of the Boston Journal, J. S. Ames of Norfolk, Va., Walter R. Adams of Ashburnham, Mass., and myself, all great lovers of the piscatorial art, but all like myself novices in the salmon branch of it.

Upon our arrival at Bathurst we were informed that the lessee of the Pappana district in this river would not in all probability fish this season, and as it was thought our chances for securing fish were much better in the upper waters than in the lower or rough waters, where it was arranged we were to get our sport, we placed ourselves in communication with him and were fortunate in securing this part of the river. At Bathurst we secured the necessary outfit, such as tents, potatoes, pork, flour, a French cook, etc., depending upon our rod and line for the luxuries. Sunday was spent in Bathurst in a quiet way. This town is situated upon two hills or bluffs overlooking the bay, which is rather the outlet of the River Nepissiquit. It is a very pleasant seaport town; its cool, bracing atmosphere quickly restores to health and vigor the weary, careworn business man. Fish and lumber are the great exports of this section. Just outside of Bathurst Bay may be seen a lobster canning establishment with large ships always in attendance during the season. In the town several artificial freezing houses have lately been erected, so that salmon, mackerel, linnet, etc., can be frozen immediately after being caught and kept, almost any length of time. It is almost unnecessary to say that arrangements were made for freezing a large quantity of salmon—to be taken by our party.

Monday morning we left Bathurst for camp, our road following the windings of the river to the Grand Falls its terminus. The latter part of this road could more properly be called a path, and it is extremely difficult to travel with horse and wagon. It was nearly six o'clock in the evening before we succeeded in getting anything to eat after our long and tiresome journey through a dreary and almost unbroken wilderness of spruce and pine. It had been an exceedingly warm and sultry day, just such a one as those in which black flies, mosquitoes and their larger brethren the moose fly, delight to prey upon the helpless humanity which ventures into their domain.

We fished but little for salmon that day, giving our attention to trout, which were wanted for camp duty. Supper over, the work of the morrow was laid out. It was decided that two of us should go up the river from camp, and the other two down. Our camp was pitched at what is called "Chain of Rocks," in about the centre of our fishing district. The great questions, who would get the first salmon? who the largest one? were to be settled. We expected on the morrow all of course would get some, but alas! there are uncertainties even in salmon fishing, for two of our enthusiastic brothers came into camp at night without their first salmon, tired, sore, sun burned and hungry; there were flies and mosquitoes, millions of them, where they had been. The other two came into camp as fresh as they went out; to be sure they were hungry and a little sore and they had seen a fly or two, but what cared they for those little things, the first salmon had been taken. They had taken more than one, four was the score of one, and two that of the other. They had seen the promised land, and it is said that after taking his second salmon which proved to be the largest one taken by our party, weighing over 22 pounds, one of the two expressed himself as supremely happy; didn't want to fish any more, was willing to go home satisfied.

The feelings of one with his first salmon upon his line (if he is a lively fish) are not easily described. Your fishing tackle is much larger and stronger than that used for trout or bass. You strike a fish that spins your large reel and your heavy oiled silk line, making a mere toy of it; then you for

the first time gaze upon what looks like a live block of silver, some four or six feet in the air, and perhaps two hundred feet away from you, and are told that that fish is upon your line; and after six of these leaps and as many more doubles he gradually shows his weakness; comes to the surface; turns upon his back; is finally brought to gaff, and you are assured that he cannot escape. Here is your first salmon before you, a fifteen-pound fish, conquered by your own hands, and with a little fly hook. If you do not call him the handsomest fish ever made; if you do not indulge in some lively expressions of joy and thankfulness that you were permitted to accomplish all this, then I pity you. There is some mistake, you are in the wrong world! The writer has enjoyed some little experience in taking many kinds of fish, but he must say there is a satisfaction, a fullness in bringing to gaff a salmon, such as he never experienced in taking any other kind of fish. There can be no question about it, he is the king of all fish and all other fishing pales before this. Never have we seen any testimony to the contrary. Let a sportsman once get a taste of this kind of sport, and if he have the time and means you will find him every year casting his "silver doctor," "silver gray," "fairy" or some other favorite fly fifty, sixty, seventy or perhaps one hundred feet just where he knows a salmon lies in the pool.

Salmon fishing has its drawbacks; it is very difficult to get an opportunity to fish in a good river during a desirable time in the season or when fish are running. It is quite an expensive pleasure, as each fisherman must have two men for his canoe. Salmon rivers are a long distance away, it takes time and money to reach them, and after you have reached them it sometimes happens there is no run of fish. Then, too, you must suffer more or less those pests, the flies. We had in our possession six different kinds of mixtures, each one recommended with the highest testimonials, and none of which were worth carrying into the woods. The only thing we found of service to us was a simple gauze net with an elastic at each end attached to our hat and running over the brim down to and under our shirt collar. This effectually kept the flies away from our faces, and the contrivance for our hands consisted of a linen sleeve commencing at the elbow with an elastic to keep it in place, covering the hand, leaving only the thumb and fingers. An improvement upon this we think would be to have the sleeve form a part of a glove covering the entire hand. We were indebted to our friend, Mr. Curtis, for the veil and sleeves.

But to return to our fishing. Tuesday, Wednesday, Thursday and Friday we had varying success, changing about, now up, now down the river until each had caught his first salmon. After the hard day's work away from camp, we found a dinner and supper all in one upon our return; then the exploits of the day were told over and over again around our great log fires and smudges. The novelty of these circumstances made us forget our hard work and gave a pleasant interest to our enjoyments. Two of our guides brought with them their violins. Imagine, if you please, four fishermen "balancing corners, right and left," around two large camp fires, whose bright lights cast fantastic shadows and shapes all about us; the forest all around us, not a habitation for miles, no note excepting that of the night hawk above us and the rushing of the water over the chain of rocks below us, and you may see us as we were encamped upon the banks of the Nepissiquit.

The study of the habits and peculiarities of fish of any kind must be very interesting to the student, but there are many simple facts interesting to all which are noticed by the lover of this sport as he is in pursuit of his game.

Salmon commence their annual ascent of the rivers where they were born about the first of June. Generally they make the journey, resting in the deep pools on the way, until they have completed the distance in about one week. Occasionally a school will make a journey in twenty-four hours. It is an established fact that these fish always return to the stream and place in the stream where they were born. Here the female with her nose digs a hole in the ground in shallow and swift running water and lays her eggs. She watches over the eggs until they are hatched and the young parr are able to care for themselves. She does this persistently, often showing so little regard for her own safety that she is easily speared or caught in other unlawful ways at this time. She never rises to a fly during this season.

Having completed their work they return to the sea and remain—in what part of it nobody knows—until another year rolls round. It is said a fish goes down stream head against the current, and that salmon return to the sea in the same way. The young fry remain in their native streams two years, when they too proceed to the sea, only about one-half returning to the river the fourth year, the other half the fifth; that is, some are absent one year, some two years.

There are always interesting incidents in connection with fish and fishing which only men who follow fishing as a business or pastime ever learn. One of the guides tells of a struggle between a large salmon and an eagle, of which he was an eye-witness. The story ran thus: When returning to camp one evening in the fall they noticed a large eagle hanging quite low over the water at no great distance from them. They at once knew that he was fishing for salmon, and waited in hopes to secure the fish after it had been caught by the bird. The eagle finally dropped upon his fish, but did not rise as usual, and thereupon commenced a fearful struggle in the water. At one time the eagle would be entirely submerged, and again he would appear out of water, spreading his large and powerful wings to fly, but all in vain. Below he

would go again, in and out, until he was finally drowned, both salmon and eagle being killed in their efforts to escape. It was found the bird had fastened his talons so deeply into the flesh of the large fish that he could not extricate them.

Saturday morning, June 30th, it was decided to break camp. After an early breakfast, and stowing away our camp utensils in our canoe, we commenced the descent of the river. In my canoe were placed the fruits of my previous day's sport, viz.: eight salmon weighing respectively 8, 13, 13, 12½, 12, 12, 8 and 10 pounds each, making 88½ pounds of fish for one day's catch. This was regarded as a remarkably good day's work for this stream, as the fish here are small compared with those in some other streams in Canada. Fish of this size afford, it is said, more sport in taking than the larger ones, as they are much more lively, and oftentimes make a half dozen leaps out of the water before showing signs of weakness. Of the fifteen salmon taken by myself upon this trip, an eight-pound fish afforded me more sport and harder work to bring to gaff than any other one I landed. The largest one I caught, weighing twenty pounds and upward, never left the water after he was hooked, and I did not see him until a few moments before he gave out and was gaffed at my feet.

We were to fish down stream, and as the "high line" of our party, on the first day, had not taken a fish since, and it was known that two more fish were needed to fill his eup of happiness, the best chance for securing them was given him at "Middle Landing," and strange as it may seem, our knight of the quill caught his two fish there. They were also the only fish caught that day, although several were hooked and lost.

Sunday found us again in Bathurst, in the land of civilization once more, at the comfortable Hotel Wilbur, out of the haunts of black flies and mosquitoes. Here we had the pleasure of meeting our friend F. Curtis, Esq., of Boston, who had just returned for a few days rest after some remarkable fishing upon the Restigouche.

This fine river, probably the best in America, is rented in two divisions; the lower to Sanford Fleming, Esq., of Canada, the celebrated engineer and angler; the other to Hon. J. C. Brydges, of Montreal, Genl. Director of Govt. Railways. It was placed at the disposal of the Fishery Commission exclusively as long as they desired to occupy it. Sir A. T. Galt, of Canada, British Commissioner; Hon. E. H. Kellogg, of Pittsfield, Mass., American Commissioner; Hon. W. F. Whitcher, Fish Commissioner of the Dominion of Canada; Fred Curtis, Esq., solicitor and counsel in patent cases, Boston, Honorary Secretary; and Mr. John Galt, private Secretary to Sir A. T. Galt, composed the party, accompanied by Mr. John Mowatt, the genial and able Fishery Warden of that section. Sir A. T. Galt, Mr. Whitcher and Mr. Curtis had fine sport. Mr. Kellogg, although fishing for salmon for the first time, was very successful, killing some fifteen large fish in six days, but the score of Mr. Curtis for one day is probably unprecedented in fishing annals; it was thirteen salmon, averaging twenty-four pounds each, three of the number weighing over thirty pounds.

The party, after leaving the Restigouche, revisited the Mata-pedia as the guests of Mr. Geo. Stephen, of Montreal (the lessee of the stream), universally known throughout Canada as an accomplished angler, and large hearted and courteous gentleman. We also had the pleasure of meeting Dr. Kennedy, of Boston, and his friend Col. Pierce, of Springfield, Mass., who were bound for a few days fishing at Pappana Falls, some seven miles up the river, upon the Nepissiquit. The uncertainties of fishing were exemplified by an exceedingly unfortunate accident which happened to Judge Souther, of Erie, Pa., who had the misfortune, after having made the entire journey from Penn. to the Chain of Rocks, and before he had thrown a fly, to suffer a severe ankle sprain which incapacitated him for any sport.

Early Monday morning we were at the rough waters of Bathurst, and during the forenoon I landed three salmon, one grise and several large sea trout. While poling up stream in our canoe and in quite shallow water, the man forward suddenly cried out, "*Mon Dieu, voyez salmon!*" and struck with all his force at something in the water. Taking in the situation at once, I jumped up from my seat in the centre of the canoe, dropped my rod and cried, "Where is the gaff?" at the same time seizing it. In the meantime the fish had gone down and was struck at by the man in the stern and turned under the canoe and up stream, where a moment after he was taken from the water by the waiter with his gaff and landed safely inside the canoe. It was a fine fish, weighing just twenty pounds, and was a sight in the shallow and rough waters, trying to find the channel which he had for some reason lost.

One word in reference to packing our fish. Every other day we sent them to Bathurst and had them frozen, and at the last moment carefully packed in snow (much better than ice) and expressed upon the train with us upward of thirty fish and weighing about 400 pounds. Tuesday morning, July 3d, we joined our friends at that desolated city of St. John, and after breakfast took the only regular eastward train in twenty-four hours over E. & N. A. R. R. This is a long and tedious day between St. John and Bangor, where we arrived about six o'clock in the evening. Here we took car for Boston, and upon the anniversary of our Independence, amid the ringing of bells and firing of cannon, we arrived home.

I wish to tender for our party our acknowledgments to John W. Nicholson, Esq., of St. John, for the great privileges which he accorded us as his guests upon the Nepissiquit, of which he is lessee.

## INTRODUCTION AND SUCCESSION OF VERTEBRATE LIFE IN AMERICA.\*

By O. C. MARSH.

PRESIDENT OF THE BIOLOGICAL SECTION OF THE AMERICAN ASSOCIATION.

THE origin of life, and the order of succession in which its various forms have appeared upon the earth, offer to science its most inviting and most difficult field of research. Although the primal origin of life is unknown, and may perhaps never be known, yet no one has a right to say how much of the mystery now surrounding it science cannot remove. It is certainly within the domain of science to determine when the earth was first fitted to receive life, and in what form the earliest life began. To trace that life in its manifold changes through past ages to the present is a more difficult task, but one from which modern science does not shrink. In this wide field, every earnest effort will meet some degree of success; every year will add new and important facts; and every generation will bring to light some law, in accordance with which ancient life has been changed into life as we see it around us to-day. That such development has taken place, no one will doubt who has carefully traced any single group of animals through its past history, as recorded in the crust of the earth. The evidence will be especially conclusive, if the group selected belongs to the higher forms of life, which are sensitive to every change in their surroundings. But I am sure I need offer here no argument for evolution; since to doubt evolution to-day is to doubt science, and science is only another name for truth.

Taking, then, evolution as a key to the mysteries of past life on the earth, I invite your attention to the subject I have chosen: "The Introduction and Succession of Vertebrate Life in America."

In the brief hour allotted to me, I could hardly hope to give more than a very incomplete sketch of what is now known on this subject. I shall, therefore, pass rapidly over the lower groups, and speak more particularly of the higher vertebrate, which have an especial interest to us all, in so far as they approach man in structure, and thus indicate his probable origin. These higher vertebrate, moreover, are most important witnesses of the past, since their superior organization made them ready victims to slight climatic changes, which would otherwise have remained unrecorded.

In considering the ancient life of America, it is important to bear in mind that I can only offer you a brief record of a few of the countless forms that once occupied this continent. The review I can bring before you will be like that of a great army when regiment after regiment with full ranks moves by in orderly succession, until the entire host has passed. My review must be more like the roll-call after a battle, when only a few scarred and crippled veterans remain to answer to their names. Or rather, it must resemble an array of relics, dug from the field of some old Trojan combat, long after the contest, when no survivor remains to tell the tale of the strife. From such an ancient battle-field, a Schliemann might unearth together the bronze shield, lance-head, and gilded helmet of a prehistoric leader, and learn from them with certainty his race and rank. Perhaps the skull might still retain the barbaric stone weapon by which his northern foe had slain him. Near by, the explorer might bring to light the commingled coat of mail and trappings of a horse and rider, so strangely different from the equipment of the chief, as to suggest a foreign ally. From these, and from the more common implements of war that fill the soil, the antiquary could determine, by patient study, what nations fought, and, perhaps, when, and why.

By this same method of research, the more ancient strata of the earth have been explored, and, in our Western wilds, veritable battle-fields, strewn with the fossil skeletons of the slain, and guarded faithfully by savage superstition, have been despoiled, yielding to science treasures more rare than bronze or gold. Without such spoils, from many fields, I could not have chosen the present theme for my address to-night.

According to present knowledge, no vertebrate life is known to have existed on this continent in the Archaean, Cambrian, or Silurian periods; yet during this time, more than half of the thickness of American stratified rocks was deposited. It by no means follows that vertebrate animals of some kind did not exist here in those remote ages. Fishes are known from the Upper Silurian of Europe, and there is every probability that they will yet be discovered in our strata of the same age, if not at a still lower horizon.

In the shore deposits of the early Devonian sea, known as the Scholarie Grit, characteristic remains of fishes were preserved, and in the deeper sea that followed, in which the Carboniferous limestone was laid down, this class was well represented. During the remainder of the Devonian, fishes continue abundant in the shallower seas, and, so far as now known, were the only type of vertebrate life. These fishes were mainly Ganoids, a group, represented in our present waters by the gar-pike (*Lepidosteus*) and sturgeon (*Acipenser*), but in the Devonian sea, chiefly by the Placoderms, the exact affinities of which are somewhat in doubt. With these were Elasmobranchs, or the Shark tribe, and among them a few Chimeroids, a peculiar type, of which one or two members still survive. The Placoderms were the monarchs of the ocean. All were well protected by a massive coat of armor, and some of them attained huge dimensions. The American Devonian fishes now known are not as numerous as those of Europe, but

they were larger in size, and mostly inhabitants of the open sea. Some twenty genera and forty species have been described.

The more important genera of Placoderms are, *Dinetichys*, *Aspidichthys* and *Diplognathus*, our largest Palaeozoic fishes. Others are, *Acanthaspis*, *Acantholepis*, *Coccoleus*, *Macropetalichthys* and *Onychodus*. Among the Elasmobranchs, were *Cladodus*, *Ctenacanthus*, *Machacraacanthus*, *Rhynchodus* and *Ptychodus*, the last two being regarded as Chimeroids. In the Chenung epoch, the great Diptrician was introduced with *Dipterus*, *Heliodus*, and possibly *Ceratodus*. Species of the European genera, *Bothriolepis* and *Holoptychius*, have likewise been found in our Devonian deposits.

With the close of the Devonian, came the almost total extinction of the great group of Placoderms, while the Elasmobranchs, which had hitherto occupied a subordinate position, increase in numbers and size, and appear to be represented by Sharks, Rays and Chimera. Among the members of this group from the Carboniferous, were numerous Cestracionts, species of *Cochliodus* of large size, with others of the genera *Deltoodus*, *Heliodus*, *Psaromodus* and *Sandolodus*. Of the Pctalodonts, there were *Antikodus*, *Chomatodus*, *Ctenoplychius*, *Petalodus* and *Petalorhynchus*; and of the Hybodonts, the genera *Cladodus*, *Caracharopsis* and *Dipodus*. These Elasmobranchs were the rulers of the Carboniferous open sea, and more than one hundred species have been found in the lower part of this formation alone. The Ganoids, although still abundant, were of smaller size, and denizens of the more shallow and confined waters. The latter group of fishes was represented by true Lepidosteidæ, of the genera *Palaeoniscus*, *Amblypterus*, *Polypterus* and *Eurypterus*. Other genera are, *Rhizodus*, *Megalotichys*, *Ctenodus*, *Eledon*, *Orodus*, *Ctenacanthus*, *Gyroacanthus*, and *Cataacanthus*. Most of these genera occur also in Europe.

From the Permian rocks of America, no vertebrate remains are known, although in the same formation of Europe Ganoids are abundant; and with them are remains of sharks, and some other fishes, the affinities of which are doubtful. The Palaeozoic fishes at present known from this country are quite as numerous as those found in Europe.

In the Mesozoic age, the fishes of America begin to show a decided approach to those of our present waters. From the Triassic rocks, Ganoids only are known, and they are all more or less closely related to the modern gar-pike, or *Lepidosteus*. They are of small size, and the number of individuals preserved is very large. The characteristic genera are, *Culopterus*, *Ischypterus*, *Psycholepis*, *Rhabdolepis* and *Turcodius*. From the Jurassic deposits, no remains of fishes are known, but in the Cretaceous, ichthyic life assumed many and various forms; and the first representatives of the Teleosts, or bony fishes, the characteristic fishes of to-day, make their appearance. In the deep open sea of this age, Elasmobranchs were the prevailing forms, Sharks and Chimeroids being most numerous. In the great inland Cretaceous sea of North America, true osseous fishes were most abundant, and among them were some of carnivorous habits, and immense size. The more sheltered bays and rivers were shared by the Ganoids and Teleosts, as their remains testify. The more common genera of Cretaceous Elasmobranchs were, *Otodus*, *Oxyrhina*, *Galocercus*, *Lamna* and *Ptychodus*. Among the osseous fishes, *Beryx*, *Enchodus*, *Portheus*, and *Sauropcephalus* were especially common, while the most important genus of Ganoids was *Lepidodus*.

The Tertiary fishes are nearly all of modern types, and from the beginning of this period there was comparatively little change. In the marine beds, sharks, rays and Chimeroids maintained their supremacy, although Teleosts were abundant, and many of them of large size. The Ganoids were comparatively few in number. In the earliest Eocene fresh-water deposits, it is interesting to find that the modern gar-pike, and *Ambia*, the dog-fish of our Western lakes, which by their structure are seen to be remnants of a very early type, are well represented by species so closely allied to them that only an anatomist could separate the ancient from the modern. In the succeeding beds, these fishes are still abundant, and with them are Siluroids nearly related to the modern cat-fish (*Pimeleodus*). Many small fishes, allied apparently to the modern herring (*Clupea*), left their remains in great numbers in the same deposits, and, with them has been recently found a landlocked ray (*Heliodontis*).

The almost total absence of remains of fishes from the Miocene lake-basins of the West is a remarkable fact, and perhaps may be best explained by the theory that these inland waters, like many of the smaller lakes in the same region to-day, were so impregnated with mineral matters as to render the existence of vertebrate life in them impossible. No one who has tasted such waters, or has attempted to ford one of the modern alkaline lakes which are often met with on the present surface of the same deposits, will doubt the efficiency of this cause, or the easy entombment of the higher vertebrates that ventured within their borders. In the Pliocene lake-basins of the same region, remains of fishes were not uncommon, and in some of them are very numerous. These are all of modern types, and most of them are Cyprinoids, related to the modern carp. The Post-pliocene fishes are essentially those of to-day.

In this brief synopsis of the past ichthyic life of this Continent, I have mentioned only a few of the more important facts, but sufficient, I trust, to give an outline of its history. Of this history, it is evident that we have as yet only a very imperfect record. We have seen that the earliest remains of fishes known in this country, are from the lower Devonian; but these old fishes show so great a diversity of form and structure, as to clearly indicate for the class a much earlier origin. In this connection, we must bear in mind that the two lowest groups of existing fishes are entirely without osseous skeletons, and hence, however abundant, would leave no permanent record in the deposits in which remains of fishes are usually preserved. It is safe to infer, from the knowledge which we now possess of the simpler forms of life, that even more of the early fishes were cartilaginous, or so destitute of hard parts as to leave no enduring traces of their existence. Without positive knowledge of such forms, and considering the great diversity of those we have, it would seem a hopeless task at present to attempt to trace successfully the genealogy of this class. One line, however, appears to be direct, from our modern Gar-pike, through the lower Eocene *Lepidosteus* to the *Lepidodus* of the Cretaceous, and perhaps on through the Triassic *Ischypterus* and Carboniferous *Palaeoniscus*; but beyond this, in our rocks, it is lost. The living Chimera of our Pacific coast has nearly allied forms in the Tertiary and Cretaceous, more distant relatives in the Carboniferous, and a possible ancestor in the Devonian *Rhynchodus*. Our Sharks likewise can be traced with some certainty back to the Palaeozoic; and even the *Lepidostiren*, of South America, although its immediate predecessors are unknown, has some peculiar characters which strongly point to a Devonian ancestry. These suggestive lines indicate

a rich field for investigation in the ancient life-history of American fishes.

The Amphibians, the next higher class of vertebrates, are so closely related to the fishes in structure, that some peculiar forms of the latter have been considered by anatomists as belonging to this group. The earliest evidence of Amphibian existence, on this continent, is in the Sub-Carboniferous, where foot-prints have been found which were probably made by Labyrinthodonts, the most ancient representatives of the class. Well preserved remains are abundant in the Coal Measures, and show that the Labyrinthodonts differed in important particulars from all modern Amphibians, the group which includes our frogs and salamanders. Some of these ancient animals resembled a salamander in shape, while others were serpent-like in form. None of those yet discovered were frog-like or without a tail, although the restored Labyrinthodont of the text-books is thus represented. All were protected by large pectoral bony plates, and an armor of small scutes on the ventral surface of the body. The walls of their teeth were more or less folded, whence the name Labyrinthodont. The American Amphibians known from osseous remains are all of moderate size, but the foot-prints attributed to this group indicate animals larger than any of the class yet found in the old world. The Carboniferous Amphibians were abundant in the swampy tropical forests of that period, and their remains have been found imbedded in the coal then deposited, as well as in hollow stumps of the trees left standing.

The principal genera of this group from American Carboniferous rocks, are, *Sauropus*, known only from footprints, *Baphetes*, *Dendropleton*, *Hylonomus*, *Hylerepleton*, *Raisiape*, *Fellon*, *Leptophractus*, *Molgophis*, *Plyonius*, *Amphibamus*, *Cocylurus* and *Ceraterepleton*. The last genus occurs also in Europe. Certain of these genera have been considered by some writers to be more nearly related to the lizards (*Lacertidae*), among true reptiles. Some other genera known from fragmentary remains or foot-prints in this formation have likewise been referred to the true reptiles, but this question can, perhaps, be settled only by future discoveries.

No Amphibia are known from American Permian strata, but in the Triassic a few characteristic remains have been found. The three genera, *Dielycocephalus*, *Displeton* and *Parios-tegus*, have been described; but, although apparently all Labyrinthodonts, the remains preserved are not sufficient to add much to our knowledge of the group. The Triassic foot-prints which have been attributed to Amphibians are still more unsatisfactory, and at present no important conclusions in regard to this class can be based upon them. From the Jurassic and Cretaceous beds of this continent, no remains of Amphibians are known. A few only have been found in the Tertiary, and these are all of modern types.

The Amphibia are so nearly allied to the Ganoid fishes, that we can hardly doubt their descent from some member of that group. With our present limited knowledge of the extinct forms, however, it would be unprofitable to attempt to trace in detail their probable genealogy.

The authors to whom especial credit is due for our knowledge of American fossil Fishes and Amphibians, are Newberry, Leidy, Cope, Dawson, Agassiz, St. John, Gibbs, Wyman, Redfield and Emmons, and the principal literature of the subject will be found in their publications.

(To be continued.)

AMERICAN BIRDS IN ENGLAND.—Apropos of the recent introduction of the European migratory quail into the United States (recently described in this journal) the London *Field*, in an editorial, says:

For several years past, the desirability of adding to our list of game birds from those of America is a subject that has been frequently mooted in England, but none of our numerous game preservers, as far as we are aware, seem to have been enterprising enough to undertake the task. While we talk, our transatlantic cousins act, and set us an example, in an experiment which, considering the number of our wealthy sportsmen and naturalists, one would have expected, would have been initiated with us. Among others such a grand game bird as the American ruffed grouse could, we feel satisfied, be established here, while the Virginian quail, a non-migratory bird, much resembling the members of the little colony of strangers recently transported to the fields of Vermont, but larger, would we have no doubt rapidly multiply on our stubbles, and as they lie well to dogs, it being characteristic of the species to do so, they would be a grand acquisition when partridge becomes too wild to remain in the same field where dogs are ranging.

ANOTHER HORSE STORY.—I have lately seen an old horse at Bourn, in Lincolnshire, on the history of which I can thoroughly rely, and it is so remarkable that I think it worth publication. I have seen the horse myself, and as far as personal observation goes, I can thoroughly endorse the story. The horse is aged twenty-two, of the old short-legged coaching stamp, and has been in the possession of the present owner upward of sixteen years, during which period he has only had three days' rest, not excluding even Sundays. His work has been to run a heavy mail-cart from Bourn to Swayfield, a distance of fourteen miles, including the return journey, every day, and one day a week two miles extra. The horse leaves Bourn between six and seven in the morning, and reaches Bourn about seven in the evening. During his recreation at Swayfield, the horse is kept in further exercise by working at plough and other work upon a farm. He is without blemish and in capital condition. His work for the last sixteen years has been so uniform that the horse knows the particular places he has to stop at on given days of the week; for instance, he persistently stops at the barber's shop on Tuesdays and Fridays, and six days a week he stops at a draper's shop for parcels, and on Sundays he won't stop at either place. His owner is so fond of him that, with a sort of feeling of "Tom Moody," he hopes that he and his horse may be buried together.—*Correspondence London Field*.

—Two little edible dogs from China have been received at the Acclimatization Garden in Paris. These interesting canines have heads like pugs, are very small and fat and short legged, and are eaten usually when two months old, after being fed exclusively on rice and milk. They are eaten roasted, and served in cuts with soy.

EATON'S RUST PREVENTATIVE.—A correspondent suggests the preventative as a sovereign remedy for canine parasites.

\* Delivered before the American Association for the Advancement of Science, at Nashville, Tenn., Aug 31, 1871.

## Fish Culture.

THE U. S. FISH COMMISSION IN SALEM.

ON BOARD THE U. S. STEAMER SPEEDWELL,  
MASS. BAY, AUG. 10, 1877.

EDITOR FOREST AND STREAM:

While we are on our way to a locality in which experience has led us to expect rich returns from the dredge the tangles, and the trawl, an opportunity is offered to furnish your readers some account of the doings of the Commission in these waters. First, allow me to introduce the party now in the field, the character of the work contemplated and the outfit to be employed.

### THE PARTY.

Prof. S. F. Baird, of Washington, Commissioner, assisted by his private secretary, Mr. H. E. Rockwell, and by Mr. J. Paul Wilson and Mr. H. E. Gill; Prof. A. E. Verrill, of Yale College, assisted by Mr. E. B. Wilson, of Chicago; Mr. G. Brown Goode and Mr. Tarleton H. Bean, of the U. S. National Museum; Lieut. Commander A. G. Kellogg, U. S. N.; Dr. T. Hale Streets, U. S. N.; Mr. A. V. Zane, U. S. N.; Mr. J. S. Smith, of Baltimore; Mr. H. C. Chester, of Noank, Conn. The steamer has a force of twenty-four men, including the non-commissioned officers.

### THE OUTFIT.

The government has detailed for Prof. Baird's use during the summer the Speedwell, a handsome iron steamer of 310 tons. This vessel is fitted up in the same manner as the Blue-light, with which your readers have become familiar; its greater size, however, furnishes increased facilities and accommodations for work. She is in charge of Lieut. Commander A. G. Kellogg, U. S. N., with Dr. T. Hale Streets, U. S. N., as surgeon, Mr. A. V. Zane, U. S. N., engineer, and Mr. J. S. Smith, first officer. Prof. Verrill and Mr. Wilson have charge of the invertebrate collections and deep-sea research. Mr. Goode and Mr. Bean give their time to the interests of the fishes and the fisheries. Capt. Chester lays us all under obligations by making himself indispensable wherever he is.

For the capture of sea animals we have dredges, tangles, dip-nets, trawls, seines, towing-nets, pinc-scrapers, hooks, jily irons, harpoons, spears, set-lines, trammel nets, gill nets, casting nets and other implements usually employed for such purpose. A new piece of apparatus, for which we are indebted to Sweden, and which is copied from the English "bull-dog" described in "Depths of the Sea," is introduced on our coast for the first time. This instrument operates on the principle of the "steel trap." Instead of narrow arms for seizing the prey, it has two scoop-shaped jaws of metal, brought together and firmly held by a powerful spring. The trap is set and then lowered, with the tread-plate pointing downward. As soon as the plate touches the bottom the jaws close with a snap and scoop up whatever may be within reach. It is useful in soft mud. The water-bottle, Miller-Casella thermometers and Green's thermometers continue in use. The accuracy of the Miller-Casella is tested by means of standard thermometers used in water brought up by the water-bottle.

For the preservation of living animals while they are under observation, the requisite stock of pails, crockery, glass ware and aquaria is furnished. Alcoholic collections are kept in jars, bottles, vials and copper tanks. In less than a week a barrel of alcohol has been used. Picric, osmic and chromic acids are employed in hardening tissues. Glycerine is resorted to for the protection of soft tissues.

### WORK PROPOSED.

The important issues which called the U. S. Commission of Fish and Fisheries into existence are well understood, and the methods of investigation have been clearly set forth in FOREST AND STREAM and other leading publications, as well as in the commissioner's official reports; but, as the duties of the present season have some distinctive peculiarities, it will not be amiss to invite attention to them. One of the objects of the Commissioner is to be present at the oint fishery convention to be held in Halifax in the present month. For this purpose, the sea-going Speedwell was detailed and appropriately fitted. This will afford a fine opportunity for the study of the habits and migrations of many of our most important food fishes, and for making large additions to our collections.

Another feature of this season's work, which comes out prominently and bids fair to become one of the most important, is the determination of the boundaries of old fishing grounds and the discovery and location of new ones. The Commission has already met with remarkable success in the capture of a species of flat-fish or flounder, heretofore supposed to be peculiar to Arctic Europe, and little known even there. It is called, by ichthyologists, *Glyptocephalus cynoglossus* (Linn.), Gill. This species was captured in large numbers, and in many stages, from the young of the year to adults measuring two feet in length. It was taken by the trawl in fifty fathoms of water, just outside of frequented fishing grounds in Massachusetts Bay. This craig flounder or pole, although known to be a favorite food fish on the coast of Greenland, has not yet been put to the test of the table here because of its great rarity; but its relations to the flat-fish, the common flounder and the halibut warrant us in predicting that it will prove to be well flavored, especially as its tissues

are beautifully white and firm. Should this accession to our fauna meet the expectations of its discoverers, and there is every reason to believe that it will, the importance of the addition may readily be appreciated, and all the more, because the capture of the young establishes the presence of the adults as a permanent source of supply.

The investigation of the condition of our fisheries and the measures necessary to insure their continued usefulness involves a systematic and exhaustive study of the food supplies upon which the occurrence of fishes in given localities at certain times depends. The movements of fishes are not capricious and uncertain, but they are governed by fixed laws, by far the most important of which is the law of self-preservation. A fish recognizes the dignity and the importance of eating. He is as absolutely at the mercy of his stomach as some more highly organized vertebrates. He lives to eat, and is to be found where the ruling desire of his life may be gratified. The species that feed upon shrimp and crabs will appear and disappear with the presence or absence of these crustacea. The occurrence of proper food determines the fact and the time of the arrival of the fish. The shrimp and the crab must eat, too, and they do their share of it. These creatures, then, in their turn, are present or absent as their food is present or absent, and thus we might pursue the subject of eating to remote limits, and find higher forms of animal life depending for subsistence upon lower forms or upon one another, and the lower upon still less highly organized animals or upon vegetables, and vegetables upon the bounty of the soil and the water. We see, therefore, what a complex chain of dependencies is to be grappled for, link by link—a chain involving the character of the bottom, the depth, temperature and chemical constitution of the water, the direction and force of currents, and other physical conditions which affect life in the ocean. Parts of this chain have been discovered, and the Commission hopes to gain possession of many missing links during its labors, so that the phenomena of ocean life may be as well understood and as readily applied to practical uses as meteorological phenomena. In other words, the time is near when it will be entirely practicable to predict the finding of valuable food fishes from the occurrence of fish food in the waters examined, and this, too, long before the fisherman in his laborious empirical method of dropping a line to get a bite has struck the right spot. To illustrate: suppose you cut open the stomachs of a great many cod and almost uniformly find in them certain crabs and mollusks. Now, if you are on grounds not frequented by fishermen, and, in dredging the bottom, take these crabs and mollusks on which cod feed, what would you infer? Cod. Well, you might go back to the food of the crab and the mollusk, and, this found, you would expect to find what it supports. In this way, from the occurrence of animal life very remotely connected with fish life, naturalists are enabled to locate and establish the boundaries of new fishing grounds far in advance of the capture of fishes, thus opening the way to new fields of industry, while they determine the limits of those already in operation.

### RESULTS OF OPERATIONS IN SALEM.

The steamer has been out five times, beginning Aug. 4. Since that time we have made the following collections: Twenty species of bryozoans; twenty-five sponges, including the rare *Praxella ventilabrum*; seventeen echinoderms, among them *Pteraster militaris* and *Ophiacantha spinulosa*, both rare, and some fine specimens of that magnificent and very rare star-fish, *Hippasteria phrygianna*. Of the *Hippasteria* one individual was caught, in the tangles, which measured a foot in diameter; twenty species of hydroids, including *Corymorpha pendula* and *Acaulis primarius*; nine species of polyps, the finest being a very large sea-anemone, *Urticina digitata*; eleven ascidians, the first on my list being *Boltonia reniformis*; one brachiopod, *Terebratulina septentrionalis*; twenty-two lamellibranchs, the rarities being *Foldia thraexformis*, *Foldia obesa* and *snachava squama*; thirty-seven gastropods, including *Chiton Emersonii*, *C. mendicorum* and *Scaphander punctostriatus*; forty five annelids, of which I name *Protula media*, *Mysicola Stenstrupii*, *Tecturella*, *Silicida*, *Euphrosyne borealis*, *Rhynchobolus albus*, and *Cryptonota citrina*, Stimp.; ten nemerteans; five sponculoids, the rare *Chaetoderma nitidulum* and the fresh spines of the extremely rare *Echiurus* being the prizes; thirty-two crustaceans, of which two, at least, are rare—*Pandanus borealis* and *Sabinea septemcarinata*. All the shrimps were simply huge!

The number of species of fishes collected up to the present time is twenty-three, seven of which are shore species and sixteen belong to the deep sea. The fishes taken in shallow water are:

Tom cod (*Fundulus pisculentus*); Stickle-back (*Gasterosteus bicuculatus*); Alcwife (*Pomolobus pseudoharengus*); Silver-side (*Chirostoma notatum*); Flatfish (*Pseudopleuronectes americanus*); Eel (*Anguilla rostrata*); Pipefish (*Syngnathus sp.*).

Tom cod is the Salem name for *Fundulus*. All of the above are common and abundant.

Lumpfish (*Cyclopterus lumpus*) was taken on floating rock-wood.

The species taken in from twenty to fifty fathoms of water in Massachusetts Bay are:

Eighteen-spined sculpin (*Cottus octodecimspinosus*); Scorpion (*Hemirhamphus acaulinus*); Hake (*Phycis tenuis*); Norway Haddock (*Sebastes sp.*); Angler (*Lophius americanus*); Eelpout (*Zoarces anguillarioris*); Whiting (*Merluccius bitinearis*); Skate (*Raia radiata*); (*Rhinorena carduata*); Rusty Flatfish (*Myoxopsetta ferruginea*); Flounder (*Pomato-*

*setta dentata*); Craig-flounder or Pole (*Glyptocephalus cynoglossus*); (*Aspidophoroides monoptyerygius*); (*Icelus uncinatus*); Spiny lumpfish (*Eumtoretus spinosus*).

Many of the last named fifteen species are peculiar to Arctic regions, and the same is true of the deep water invertebrates; indeed the occurrence of northern forms in abundance is a constant source of surprise. *Aspidophoroides monoptyerygius* has been taken very rarely in the stomachs of cod and haddock. We trawled more than a dozen specimens at one haul. *Myoxopsetta ferruginea* is very rare in collections. We have secured several specimens. Of the rare *Pomatopectta dentata* we have about one hundred. *Eumtoretus spinosus*, so far as I can learn, has been captured twice before—by Prof. Verrill, at Eastport, and by the U. S. Fish Commission at the same place. *Icelus uncinatus* is new to North America. Our catch is nine individuals. *Glyptocephalus cynoglossus* also new to North America, came up in abundance.

I cannot forbear alluding to a curiosity which excited the admiration of all on board the Speedwell. It was a mass of spawn of the angler (*Lophius americanus*) which must have measured fifty feet in length by two in width. Floating as it did on the surface, with its partially segmented eggs giving it the appearance of a pinkish-brown, gauzy veil, gathered into graceful folds, it was certainly "a thing of beauty" and "a joy forever" to the contemplative fisherman, though little calculated to inspire the pound-men who see trouble in  *futuro*.

Another diversion was the "blowing" of a school of huge fin-back whales (*Megaptera sp.*), which alternated between "soundings" and surface evolutions very near the steamer. The fin-back, like the blackfish (*Globicephalus*) and the majority of the whales blows columns of spray straight upward. In this case the spray seemed to reach a height of ten or twelve feet.

On Monday an early start is projected for the grounds where many rarities were secured. We expect then to hear the familiar sound of Capt. Chester's voice in the welcome and inspiring cry of "Up dredge!" and "Up trawl!" perhaps for the last time in Salem waters; but we shall carry away with us rich collections and pleasing remembrances. A day on board the Speedwell would give you a more vivid idea of the wonders and the beauties of deep sea work than my inefficient English can convey. I can, therefore, only wish that all who appreciate the treasures of the sea might exchange the imperfect picture for the faultless original. T. H. B.

### SPLIT BAMBOO RODS.

To Our Customers and the Public: In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BRISSET & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

## Natural History.

### THE GAME FISH OF WISCONSIN.

The following is a brief description of the game fishes of Wisconsin, being those most sought after, and giving the most sport with rod and reel:

#### FAMILY PERCIDÆ.

*Percu flavescens*, Cuvier.

YELLOW PERCH.

This well-known fish, the especial pet of idly anglers, is very common throughout the State. In some of the lakes it reaches two pounds in weight, and affords considerable sport with light tackle.

*Stizostedion Americanum*, Cuv. and Val.

PIKE PERCH—WALL-EYED PERCH. DOY.

Very common in most of the lakes and rivers of the State. He is a bold bringer and hard pulling fish, and a fine fish for the table; usual weight, from three to ten pounds.

#### FAMILY LABRÆIDÆ.

*Roccus chrysops*, Gill.

WHITE LAKE BASS.

Found in Lakes Michigan and Winnebago, the lower Fox River, and a few other waters in the State. He is a good pan fish and bites greedily; will weigh two pounds or more.

#### FAMILY ICHTHELIDÆ.

*Micropterus salmoides*, Gill.

SMALL-MOUTHED BLACK BASS.

This, the true black bass, is one of our gamest fishes, if not the gamest. I consider him—pound for pound—as hard fighting and brave a fish as swims; and with light and suitable tackle and fair play, he will furnish more sport for his inches and more pluck for his ounces than any other fish with which I am acquainted. He is very generally distributed throughout the lakes and rivers of Wisconsin, and in nearly all instances inhabiting the same waters with the *M. nigricans*, or large-mouthed black bass mentioned below. Weight from one to five pounds.

*Micropterus nigricans*, Cuvier.

LARGE MOUTHED BLACK BASS—OSWEGO BASS.

This variety of black bass is second only in game qualities to the variety named above. He grows somewhat larger and heavier, but is not nearly so trimly built as the former. He has a much larger mouth, larger scales, is thicker through the shoulders, and has a greater depth of body, and shows more white upon the belly than his more thoroughbred congener (*M. salmoides*). The small-mouthed bass has invariably more or less red in the eye, which color is as certainly absent in the eye of the large-mouthed bass. Both varieties vary greatly in color. Adjacent lakes and neighboring waters will produce fish exhibiting all the various shades of green, from black or bottle green to greenish yellow; but, as a rule, green is the dominant shade of the large-mouthed bass, while the small-mouthed variety is more sombre in hue. Weight from one to seven pounds.

*Anaploplites torpestris*, Gill.  
ROCK BASS—RED EYE.

The waters of the State fairly swarm with this greedy and free-biting fish. He will take anything in the form of a bait, and on this account is quite a favorite with many. He is not lacking in gamey features, and will often weigh as much as two pounds.

*Hyporistius hecaeanotus*, Gill.  
SPOTTED BASS, SILVER BASS, BAR FISH, CROPPIN.

This pretty and polytomous fish is extremely common throughout the State, being found in the same waters with the rock bass and yellow perch. He is a bold and voracious fish, and furnishes good sport to the still fisher, often exceeding two pounds in weight.

*Pomoxis arivata*, Gunther.  
COMMON SUN-FISH, PUMPKIN SEED.  
*Ichthys nitidus* (?), Gill.  
LONG-EARED SUNFISH.

These two varieties of sunfish are very plentiful in all waters of the State, and are the special objects of pursuits of juvenile anglers.

FAMILY ESCOIDEÆ.  
*Esox nobilior*, Thompson.  
MUSKELLUNGE, MASALONGE.

This noble fish, the giant of fresh water game fishes, inhabits the lakes in the extreme northern portion of the State and Lake Superior. He is found in all his glory in the lakes now accessible by the Wisconsin Central Railroad, where he is taken frequently weighing forty pounds. The capture of one of these monsters is regarded as the height of piscatorial ambition.

*Esox lucius*, Linnæus.  
PIKE—NORTHERN PICKEREL.

This tyrant of the waters abounds in most of the lakes and rivers of Wisconsin, growing to the weight of twenty pounds. He is extremely fierce and voracious, will bite at anything in the shape of bait, from an angle worm to a spring chicken. He is not considered gamey in this section, being more of a bully than a fighter, a poacher rather than a sportsman, a dunghill rather than a thoroughbred. He is full of bones, and a poor table fish.

FAMILY SALMONIDÆ.  
*Salmo namaycush*, Pennant.  
MACKINAW TROUT, SALMON TROUT, LAKE TROUT.

This is principally a commercial fish, and is taken in Lake Superior, in the neighborhood of Ashland and Bayfield, also in Lake Michigan, at Green Bay and other points. It is a good table fish, a ravenous feeder and can be taken by trolling with the spoon, or a hook baited with herring. In the winter they are caught in large numbers through the ice, biting greedily at a piece of pork for bait. He is a hard fighting and strong pulling fish.

*Salmo trutta*, Agassiz.  
SISCOWET, SISKAWITZ.

This is also a commercial fish, and much superior to the Mackinaw trout in flavor, though he does not grow nearly so large. He inhabits Lake Superior only, and is taken in nets in the vicinity of the Apostle Islands. He is frequently taken by trolling with artificial and natural bait.

*Salmo fontinalis*, Mitchell.  
SPECKLED BROOK TROUT.

This favorite and peerless fish is taken in the streams in the western part of the State, which empty into the Mississippi River above Prairie du Chien, and in those emptying into Lake Superior and Green Bay. The largest trout and best fishing is in the immediate vicinity of Ashland and Bayfield on Lake Superior.

*Coregonus albus*, La Sneur.  
WHITE FISH.

The whitefish is famous as being the very best table fish that inhabits fresh waters. It is strictly a commercial fish, and is taken exclusively in nets in Lake Superior and Michigan, though I have heard of their being taken with the artificial fly at certain seasons in Lake Mendota, near Madison, into which lake they were introduced by Gov. Farwell in 1854.

*Argyrosomus clupeiformis*, Agassiz.  
LAKE HERRING.

This fish, which by the way is not a herring but a sisco, inhabits the shoal waters of Lakes Michigan and Superior. It is also a commercial fish, but is caught in considerable numbers about the docks and piers with hook and line in the spring and fall; they may also be taken with the fly.

*Argyrosomus sisco*, Jordan.  
SISCO.

This is the sisco, the most noted member of the family, and is found in Lake Geneva, near Geneva, and in Lakes Oconomowoc, Nashotah, Nemahbit, La Belle, and perhaps others near Oconomowoc. During the month of June they are taken in large numbers with the "sisco fly"—a grayish fly that covers the lakes at that time. They are also taken in winter through the ice at a depth of fifty feet or more. They may also be taken with a small white or gray artificial fly in June.

*Argyrosomus hoyi*, Gill.  
MOON-EYE.  
*Argyrosomus nigripinnis*, Gill.  
BLACK FIN.

These two varieties of sisco are found in Lake Michigan. The blackfin is occasionally taken with the fly.

In the above classification I have purposely omitted the catfish, bull-head, sturgeon, sucker, dogfish, etc., as they do not properly come under the head of game fishes. In the arrangement of the families, genera and species, I have endeavored to follow the nomenclature of Prof. Theo. Gill and D. S. Jordan, while the vernacular is that common to the State.

ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDEN DURING WEEK ENDING TUESDAY, Aug. 25, 1871.—One green snake (*Crotaphytus vernalis*), presented; one night heron (*Nycticorax nycticorax*), presented; one meadow lark (*Sturnella magna*), presented; two gray African parrots (*Prittacus erythacus*) purchased.  
ARTHUR E. BROWN, Gen'l. Supt.

SOMETHING ABOUT INSECTS.

TO the naturalist—or to any person who has a taste for the pursuits of a naturalist, there is, perhaps, no subject which presents such fascinating features, nor such inexhaustible resources for entertainment and close study as entomology. The meaneast insect possesses claims to consideration which only require to be understood to be universally acknowledged. The metamorphosis of the grub into the chrysalis, in the strict sense of the term, or the quiescent chrysalis into the active, beautiful, brilliant butterfly, while it no longer possesses a claim to the supernatural, has by no means lost its legitimate character of the wonderful.

Many persons have, at some time or other, kept silk worms, and are consequently pretty well acquainted with the changes they undergo in their progress from the egg to the perfect

winged condition. To those who have not had this opportunity of practically giving a knowledge of the economy of the butterfly tribe, the following passages extracted from the writings of Kirby and Spence on this interesting subject will in a great measure supply this information. "That butterfly which amuses you with its aerial excursions; now extracting nectar from the tube of the honeysuckle, then, the very image of feckleness, flying to a rose as if to contrast the hue of its wings with that of the flower on which it reposes, did not come into the world as you now behold it. At its first exclusion from the egg, and for some months of its existence afterward, it was a worm-like caterpillar crawling upon sixteen short legs, greedily devouring leaves with two jaws, and seeing by means of twelve eyes, so minute as to be nearly imperceptible without the aid of a microscope. You now view it furnished with wings capable of rapid and extensive flights; of its sixteen feet ten have disappeared, and the remaining six are in most respects wholly unlike those which they have succeeded. Its jaws have vanished, and are replaced by a curled-up proboscis suited only for sipping liquid sweets. The form of its head is entirely changed, two long horns project from its upper surface, and instead of twelve invisible eyes you behold two, very large and comprised of at least 20,000 convex lenses, each supposed to be a distinct and effective eye. Were you to push your examination further, and by dissection to compare the internal conformation of the caterpillar with that of the butterfly, you would witness changes even more extraordinary. In the former you would find some thousands of muscles, which in the latter are replaced by others of a form and structure entirely different. Nearly the whole body of the caterpillar is occupied by a capacious stomach. In the butterfly this has become converted into an almost imperceptible thread-like viscus; and the abdomen is now filled by two large packets of eggs or other organs not visible in the first state. In the former two spirally convoluted tubes were filled with a silky gum; in the latter both tubes and silk have almost totally vanished; and changes equally great have taken place in the economy and structure of the nerves and other organs.

What a surprising transformation! Nor was this all. The change from one form to the other was not direct. An intermediate state not less singular intervened. After entering its skin, even to its very jaws, several times, and attaining its full growth, the caterpillar attaches itself to a leaf by a silken girth. Its body greatly contracted, its skin once more split asunder and disclosed an oviform mass without exterior mouth, eyes or limbs, and exhibiting no other symptoms of life than a slight motion when touched. In this state of death-like stupor, and without tasting food, the insect existed for several months, until at length the tomb burst, and out of a case not more than an inch long and a quarter of an inch in diameter, proceeded the butterfly before you, which covers a surface nearly four inches square." Witnessing, as they doubtless did, these extraordinary changes, without being able to account for them physiologically, it is quite possible, as Kirby has suggested, that "some of the wonderful tales of the ancients were grafted on the changes which they observed to take place in insects." The story of the phoenix, for example, in many of its particulars, closely resembles various occurrences in the metamorphosis of insects.

At first a worm, emerging from the ashes of its parents' funeral pile, and eventually a glorious winged creature, providing, in the means of its own destruction, the nidus of its future and unseen progeny, the fabled phoenix might assuredly have acquired its type from the actual butterfly without any stretch of the imagination. Then again, the doctrine of metempsychosis, or transmigration of souls, would, to the minds of the early observers, be shadowed forth in the apparent re-vivification of the seemingly dead chrysalis. But the doctrine of a future life, more glorious than that of transmigration, also derived support and countenance from the remarkable vicissitudes of insect life. In the words of Newman—

"What can be more wonderful than the fact that an unsightly worm should pass through a shrouded and death-like sleep, and should wake, at last, a glorious butterfly, to bask in sunshine, float on the impalpable atmosphere and quaff the luscious nectar of beautiful flowers! Well might such a miracle be made a poet's theme! Well might those philosophers, on whose mind there dawned, albeit dimly, the great truth of an after life—well might they imagine their toilsome existence, typified in the caterpillar, their descent to the grave in the tomb-like repose of the chrysalis, and the hereafter they sighed for in the spirit-like resurrection of the happy butterfly; and, seizing with avidity the idea, well might they designate these aerial creatures by the name of souls."<sup>98</sup>

Observation and research have shown the true nature of insect metamorphosis; it is now established beyond a doubt that the wings and legs and other part of the butterfly pre-exist in the chrysalis, and even in the caterpillar. These facts have been ascertained by immersing the chrysalis and caterpillar in hot water, and dissecting them when a greater degree of solidity has thus been given to the various parts. This is still more minutely explained by Kirby and Spence in the following paragraphs:

"A caterpillar is not, in fact, a simple, but a compound animal, containing within it the germ of the future butterfly in closed in what will be the case of the pupa, which is itself included in three or more skins, one over the other, that will successively cover the larva. As this increases in size, these parts expand, present themselves, and are in time thrown off, until at length the perfect insect which has been concealed in this succession of masks is displayed in its genuine form.

"That this is the proper explanation of the phenomenon,

has been satisfactorily proved by Swammerdam, Malpighi, and other anatomists. The first mentioned illustrious naturalist desecrated by accurate dissections not only the skins of the larva and of the pupa in each other, but within them they very butterfly itself, with its organs, indeed, in an almost fluid state, but still perfect in all its parts.

"Of this fact you may convince yourself without Swammerdam's skill, by plunging into vinegar or spirits of wine a caterpillar about to assume the pupa state, and letting it remain there a few days for the purpose of giving consistency to its parts; or by boiling it in water a few minutes. A very rough dissection will then enable you to defeat the future butterfly; and you will find that the wings, rolled up in a sort of cord, are lodged between the first and second segment of the caterpillar, and that the legs, however different their form, are actually sheathed in its legs. Malpighi discovered the eggs of the future moth in the chrysalis of the silk worm only a few days old, and Reaumur those of another moth (*Hyponomea dispar*) even in the caterpillar, and that seven or eight days before its change into the pupa. A caterpillar then may be regarded as a locomotive egg, having for its embryo the included butterfly, which, after a certain period, assimilates to itself the animal substances by which it is surrounded; has its organs gradually developed, and at length breaks through the shell which incloses it."

That author also adds: "This explanation strips the subject of everything miraculous, yet by no means reduces it to a simple or uninteresting operation. Our reason is confounded at the reflection that a larva, at first not thicker than a thread, includes its own triple, or sometimes octuple teguments; the case of a chrysalis, and a butterfly, all curiously folded into each other; with an apparatus of vessels for breathing and digesting, of nerves for sensation, and of muscles for moving; and that these various forms of existence will undergo their successive evolutions by aid of a few leaves received into its stomach. And still less able are we to comprehend how this organ should at one time be capable of digesting leaves, at another only honey; how one while a silky fluid should be secreted, at another none; or how organs at one period essential to the existence of the insect, should at another be cast off, and the whole system that supported them vanish."

ΚΕΥΚΑ.

MORE ABOUT SHARKS.—The interesting article in your paper of Aug. 16, upon sharks, repeats the common statement that the sharks are obliged to turn upon their backs to seize their prey. Did he or any other person ever see them do this, or is it the mere repetition of a common error? I have seen in my time thousands of these fishes, and have caught many of them with hook and line, but have never, that I can remember, seen them perform this revolution. Moreover, on putting the question to an old fisherman on the Florida coast, who made a business of catching sharks for their oil, his reply was that they seized their prey like any other fish.

I have no doubt that the sharks are viviparous, having frequently seen the young ones taken from the dead parent, ten or twelve inches in length, when on being released, they swam away, apparently well able to take care of themselves. Usually, I think, about ten or fifteen in number.

As to the voracity of the sharks, and their desire for human flesh, I think the different species vary, and perhaps the same species may vary in their habits in different localities. On the coast of Florida where the sharks are very large and numerous, I have not heard of a well authenticated instance of a man devoured or attacked by them, while there are many such recorded in the West Indian Seas. Even the most ferocious and destructive animals seem to have a dread of mankind, whom they only attack under exceptional circumstances, and then finding them an easy prey they continue their depredations. This is the case with the lion and the tiger, and may be also with the shark.

S. C. C.

[We have frequently seen sharks turn slightly upon the side to seize their food, but the idea that they turn upon their backs is simply nonsense.—Ed.]

WHAT BECOMES OF THE DEAD ELEPHANTS?—An experienced elephant-hunter writes as follows: I should like some naturalist to explain to me why it is that a hunter is never able to find a dead elephant. Of course after you bring him down he is there before you; but show me a man who has ever found the skeleton of an elephant in those vast Cingalese forests, or has come upon the carcass of one that has died a natural death? For ten years I have hunted unremittingly, tramping over hundreds of miles, in all sorts of solitudes, and never succeeded in discovering such a curiosity.

Mr. Emerson Tennent tells us of a gentleman who lived for thirty-six years in the jungle, exploring valleys and tracing roads, during his trigonometrical pursuits, who never once came upon the skeleton or decaying body of an elephant that had died a natural death.

The Cingalese believe that there is some mysterious valley into which these animals hasten when they feel the approach of death, and thus the island contains a vast mansoulon, wherein are entombed all the giants of the forest that have gone on before.

There might be some reason to believe this faneiful theory if this cemetery was ever discovered, but its precise location is still unknown, and the conundrum as to what becomes of all the dead elephants is interesting and seemingly insoluble.

This would lead one to believe that there was some peculiarity in the Cingalese climate that dissolved or decomposed the bones. Such might be the fact were it not for the grinders and tusks. There is no climate on the face of the earth that can destroy them, and so you see, we are brought back to the same point from which we started.

[The same question may with propriety be asked regarding many other species of Nature's kingdom. The probabilities are, however, that the remains of animals are speedily made away with by insects and rodents. How often we find fallen antlers almost unrecognizable, owing to the ravages of rodents; and in a tropical forest certain ants would remove even the unwieldy carcass of an elephant in less than twelve hours.—Ed.]

THE RUFFED GROUSE—A QUERY.—Some years ago I was walking with a friend in a pasture adjoining a woodland. The earth was soft from recent rains and we had no difficulty in approaching within ten yards of a female grouse with her young. Our astonishment was great when she flew off with her young brood hanging to her feathers with their bills; the little ones were arranged symmetrically on each side of the mother under her wings. The pas

<sup>98</sup> The Greek word signifies both *ant* and *butterfly*.

season I have been fortunate enough to see the same thing and at nearly the same place. In all works to which I have access I have been unable to find any reference to the habit in question; and as many old sportsmen to whom I have narrated the above doubt the reliability of my observations, I would like any one who has observed the above habit to give their testimony to its truth through the columns of the FOREST AND STREAM. J. T. B. S.

[This is not new, though but few works have noticed it.—Ed.]

ANOTHER HUMBING HERPIDI.—A few days since a correspondent sent us a cat which in early kittenhood had evidently met with an accident which removed the tail and injured both legs, also dislocating one hip. The youth of the animal prevented scars being seen, and as pussy's walk and mode of standing upon her hind legs was not dissimilar to that of a rabbit, the conclusion was reached that it was a hybrid of a cat and hare, and the cat sent to us for examination. As before stated in these columns, such a hybrid is a physiological impossibility.

INSTINCT VS. REASON.—My small Scotch terrier, two years old, of not very pure blood, was one afternoon in a chamber, in front of an old-fashioned pier glass, fastened on the dividing wall between this room and the next. As soon as he caught sight of his image, he ran up to the glass and nosed about in an excited way, then ran round by a door into the other room and made a thorough examination of all the parts and the furniture, barking and wagging his short stump of a tail. Falling in his search, he returned to the glass again, saw his image, and was satisfied at once that no dog but himself was there. He never could be excited by so pleasing him again, and evidently had either solved the problem or had at least determined that there was some fraud about it. No human being could do more, and this is simply one of many instances well known where extreme power in instinct equals our boasted superiority of reason, it seems to me.

SAWBORES.

MELANOSIS.—I have in cage a black robin (*Turdus migratorius*, Linn.) as black as a grackle. It was taken from the West about two months ago, is now moulting, and I am anxious to see what the moult will be like. This black plumage for small birds must be very rare, as I have over twenty species of albinos in my collection, and but two melanos. This black or dark plumage is not uncommon with some of the larger hawks. GEO. A. BOARDMAN.

Miltoven, St. Stephens, Aug. 26, 1877.

—I obtained last weeks a chipping squirrel jet black, I have had an albino of that variety, but have never seen or heard of a case of this kind. Is it a common occurrence?

A. J. COLBURN.

31 Boylston street, Boston, Mass., Aug. 30.

[Lovers of the curious can view it at above address. Melanosis is by no means uncommon particularly among birds, but it is not of sufficient frequency to cause the interest of the naturalist to wane, as it has in the case of albinos.—Ed.]

ALBINO ROBIN.—While out for a stroll Aug. 25, I discovered a white bird perched upon the limb of an old elm. Upon examination it proved to be a beautiful specimen of the robin (*Turdus migratorius*). It was a perfect albino without a spot. I have seen but one before, which was the property of George Dwight, of Sheffield. FRANK H. MERTON.

Hatfield, Mass.

TO PREPARE FISH SKINS.—Skin your fish carefully, but do not be particular as to leaving a little meat on. Spread the skin in layers and sprinkle with salt and alum, or make a pickle in a small keg of a weak solution of carbolic acid. Any remaining flesh can be scraped off afterward and the fish set up by a taxidermist. Many of the most delicate fishes with large scales will not stand the above treatment, to say nothing of mounting them afterward.—From *Hatlock's Sportsman's Gazetteer*.

—Three Arabian sheep, the first of the kind ever brought to this country, are on their way to Philadelphia.

INTELLIGENT OYSTERS.—These educated oysters interest us. It is agreeable to know that oysters possess powers of perception, thought and affection; that they can recognize their friends among men; that they can show gratitude for kindness, and that they can give tangible evidence of being filled by the passion of revenge. If the education of those that have already been put in training can be properly completed, we may have revelations of a still more surprising nature. They are cunning, a quality into which many faculties enter. When they catch sight of their friend Hamilton they open their shells in a seductive manner, and when he gives them some dainty morsel, they close up to reveal in his enjoyment. One of them has a way of inviting him to put his finger inside of its shell. It can recognize him, as the rest of them can, at a glance, and will not allow other people to take the liberties freely enjoyed by him. A stranger tried to deceive it, but it made him squirm as it closed on his finger, which it refused to release till the touch of its friend soothed its wrath. It is said in the books that the adult oyster has no power of locomotion, but these educated oysters, under the control of their affections, are practicing the art of propulsion. Confidence is a plant of slow growth in oysters as in men, and it required weeks to bring the educated oysters up to the point of trusting in anybody. They had probably been in the habit of looking on man as a monster, destitute of the better qualities that dwell in the mind and shell of an oyster. One reason for the superiority of the oyster is probably to be found in the fact that it does not look out of one eye, like *Polyphemus*, or out of two eyes like ordinary human beings, but out of those numerous yellowish brown eyes that lie between the fringes of its mantle. Let us think of these things, when consuming oysters raw, on the half shell, regardless of their views and feelings.—*Ed.*

ETHNOLOGICAL.

WASHINGTON, D. C., June 15, 1877.

EDITOR FOREST AND STREAM:

SIR: Being engaged in preparing a memoir upon the "Burial Customs of the Indians of North America, both Ancient and Modern, and the Disposal of their Dead," I beg leave to request your kind co-operation to enable me to present as exhaustive an exposition of the subject as possible, and to this end earnestly invite your attention to the following points in regard to which information is desired:

1st—Name of the tribe. 2d—Locality. 3d—Manner of burial, ancient and modern. 4th—Funeral ceremonies. 5th—Mourning observances, if any.

With reference to the first of these inquiries, "Name of the Tribe," the Indian name is desired as well as the name by which the tribe is known to the whites. As to "Locality," the response should give the range of the tribe, and be full and geographically accurate. As to the "Manner of Burial, etc.," it is important to have every particular bearing on this branch of the subject, and much minuteness is desirable; for instance:

(a) Was the body buried in the ground; if so, in what position, and how was the grave prepared and finished? (b) If cremated, describe the process, and what disposal was made of the ashes. (c) Were any utensils, implements, ornaments, etc., etc., or food, placed in the grave? In short, every fact is sought that may possibly add to a general knowledge of the subject.

Answers to the fourth and fifth queries should give as full and succinct a description as possible of funeral and other mortuary ceremonies at the time of death and subsequently, the period of mourning, manner of its observance, &c.

In obtaining materials for the purpose in question it is particularly desirable that well-authenticated sources of information only be drawn upon, and, therefore, any points gathered from current rumor or mere hearsay, and upon which there is doubt, should be submitted to searching scrutiny before being embraced in answers to the several interrogatories, and nothing should be recorded as a fact until fully established as such.

In seeking information from Indians it is well to remember the great tendency to exaggeration they show, and since absolute facts will alone serve our purpose, great caution is suggested in this particular.

It is earnestly desired to make the work in question as complete as possible, and therefore it is especially hoped that your response will cover the ground as pointed out by the several questions as thoroughly as you may be able and willing to make it.

In addition to notes, a reference to published papers either by yourself or others is desirable, as well as the names of those persons who may be able to furnish the needed information.

Permit me to assure you that, while it is not offered in the way of inducement to secure the service asked, since it is barely possible you can be otherwise than deeply interested in the extension of the bounds of knowledge, full credit will be given you in the work for whatever information you may be pleased to furnish.

This material will be published under the auspices of Professor J. W. Powell, in charge of the U. S. Geographical and Geological Survey of the Rocky Mountain Region.

Communications may be addressed to me either at the address given above or at the Army Medical Museum, Washington, D. C.—Respectfully yours, H. C. YARBROW.

WHITE WHALE FOR EUROPE.—The first white whales brought to New York for exhibition were those captured by Mr. Barnum for his museum. This veteran showman now proposes to send one of these curiosities to be gazed at by our London cousins across the water. One of the specimens now in the Coney Island Aquarium is to be shipped via the steamship which sails for Southampton, Eng., the 15th of this month. A special tank is being prepared for his whaleship, and twenty bushels of cels will be provided for his support.

ANIMALS RECEIVED AT CENTRAL PARK MENAGERIE FOR WEEK ENDING SEPT. 1, 1877.—Two pine snakes (*Pituophis melanoleucus*) purchased; two alligators (*Alligator mississippiensis*) purchased; two Florida tortoises (*Pseudemys polyphemus*) purchased; one raccoon (*Procyon lotor*) presented by Mr. W. H. Whimster, N. Y. City; one gray squirrel (*Sciurus carolinensis*) presented by Master Geo. Tamly, N. Y. City; three gray foxes (*Vulpes virginianus*) presented by Mr. W. Wiggins, Mt. Hope, N. J.; one raccoon (*Procyon lotor*) presented by Mr. H. W. Tompkins, N. Y. City; one agouti (*Dasyprocta aguti*) presented by Capt. Samuel L. Clapp, P. M. S. S., Acapulco. This animal belongs to the same family as the Guinea pig, but more nearly resembles the hare in its movements and shape. The feet have long, strong claws; hind legs longer than the fore-legs; it measures about one foot six inches in length, and stands about twelve inches high at the croup; the hair on the upper part are annulated alternately with black, brown and yellow, giving an appearance of being speckled; the hairs on the croup are golden yellow and stand erect when the animal is started; the hair on the body is about an inch long, while that on the rump is nearly three times this length, hence the generic name *Dasyprocta*; back part hairy. When the Antilles and Bahamas were discovered these animals were found in great abundance, and were said to be the largest quadrupeds there. They also abound largely in Central and South America, in which place they are used as a common article of food, the flesh being white, tender and well flavored, having somewhat the taste of a rabbit. They are gregarious, do not burrow, but shelter themselves behind rocks or the roots of trees. They have voracious appetites, eating all kinds of vegetables, particularly potatoes and yams. When eating they sit on the hind legs, carrying the food to the mouth with the fore-paws like the squirrel. They are destructive to the sugar plantations, committing great havoc by gnawing the roots of the canes, consequently are a source of considerable annoyance to the planters, who take every means to destroy them. The Agouti can be very easily domesticated. W. A. CONKLIN, Director.

—One of the most delightful of all physical experiences is that of the bather when he steps out of the bath in a splendid glow of strength and health. It can increase this delight by recourse to B. T. Babbitt's Toilet Soap, a new article, which cannot be equaled, for it is composed of the finest vegetable oils, and prepared with the greatest possible regard to excellence of manufacture. Mothers need no longer fear that their little ones will absorb disease and poison from one of the most essential of physical operations.—[Ad.]

A NEW RECOIL PAD.

Examine the new pad (just out) at C. L. Ritzmann's, 943 Broadway, can be put on and off the gun in a moment, needs no alteration to gun. Price only \$2. Best thing out.—[Ad.]

Woodland, Farm and Garden.

CHINA ASTERS.

THE sight of some beautifully grown Asters in a friend's garden, the other day, led us to think how seldom we see any worthy of the name, and how scurvily treated this magnificent fall flower is with us. There are two main divisions in Asters—the German and the French. The definition German is applied to those having tubular or quilled florets, though this is somewhat restrictive in its application, as the German growers have of late years done much in the way of improving the flat-petalled varieties also. The French Asters, which have large flat petals, are so named because the French florists took them in hand years ago, and effected in them a great and marked improvement. Taking the quilled type, it must be acknowledged that notwithstanding the Germans have grouped them into many assumed types (*vide* any German seed catalogue), yet but few of them are worthy of cultivation. What are termed Hedgehog, Poreupine, and other quilled forms, are generally of a poor or worthless character. A really good strain furnishes very beautiful flowers; the form is a half-ball of quilled petals, and many charming hues of color are found among them. Of the imported varieties, the best types are the German quilled and Reid's quilled; and in all gardens where cut flowers are in demand, a good sized bed of them should be grown to cut from. They require to be planted in rich ground, well manured, mulched with rotted manure in summer, and watered liberally in dry weather. Such a bed will yield large quantities of blooms for many weeks.

Passing to the French, or flat-petalled, section, it may be stated at the outset that its varieties are legion, but that the greater portion of them are next to worthless. One of the best forms is Truffant's peony-flowered perfection, which bears noble incurved vari-colored flowers. This is the French Aster, *par excellence*, and though it is now offered in a bewildering multitude of varieties, the type named will give the most satisfaction. Its flowers are large and full, with the petals folding inward—incurved, as it is termed. The next best is probably the Victoria Aster. This is of shorter and more rigid growth than the foregoing, and has very large, full-petalled flowers, but the petals lie outward, or are reflexed. This is a splendid variety, with full flowers like a half ball, and they assume a fine variety of colors. If any evidence were wanted of the popularity of this type, it may be found in the fact that it is fast taking the place of Truffant's for exhibition purposes. There is one good quality common to both these varieties, and that is, that under ordinary cultivation they will produce good flowers. They deserve, however, to be well treated, and will reward the painstaking amateur—if planted in rich ground, and given a little manure-water at the blooming season—with an abundance of rich double flowers. The dwarf *Chrysanthemum*-flowered Aster is a peculiar variety, flowering later, and producing large blooms, like those of a reflexed *Chrysanthemum*. Having a very dwarf, free-flowering habit, it is well adapted for flowering in pots, or for use as an edging to a bed of taller growing sorts. The Crown flowered or Cocardean Aster represents a distinct and charming type, and is so named because of the flowers having a central disc of white, with a margin of blue, lilac, crimson, carmine and other shades. This is a selection from the Peony-flowered Aster; the florets are reflexed, but the flowers are not so large and full as those of the Victoria. There are yet two varieties that can be highly recommended, especially for pot culture and for small gardens. These are the Dwarf Pyramidal and Boltze's Dwarf Bonquet Asters. There is not a wonderful difference between them, but still enough to make their culture desirable. Very dwarf in growth and very free-flowering, they produce a variety of nice flat-petalled, various colored blossoms, that are unequalled to cut from; they are also well adapted for indoor or window decoration, before those grown in the open ground come into bloom. Aster seeds are somewhat difficult of germination, but there is little difficulty provided they be fresh and good. Seed a year old is difficult to germinate, and of little use to the amateur. They may be sown in pans, pots or shallow boxes, in a rich, light soil, and placed on a warm shelf in the greenhouse, a gentle heat in a dung frame, or a warm window in a dwelling. As soon as they are large enough to handle, transplant them to other pots or boxes, and encourage them to grow fast and vigorously. After being transferred to their permanent beds or borders, where they should have well enriched soil, a liberal mulching with plenty of water, and say a weekly allowance of manure-water after they get thoroughly established, will give quantity and quality of flowers enough to repay even the most fastidious and unreasonable cultivator.

—The cultivation of flax in the West is increasing, as it should. The Northwestern Flax Society report the average value of the crop per acre to be \$27.08. The United States import annually \$50,000,000 worth of flax, hemp and jute. Improved processes are steadily diminishing the cost of harvesting, preparing and manufacturing. Jute may be grown in the Southern States, hemp in Kentucky, Missouri, Illinois and Indiana; further North flax is at home. The two latter are extensively grown already.

AMERICAN POMOLOGICAL SOCIETY.—The annual meeting of this society opens at Baltimore September 12th, and continues for three days. The displays of fruit, especially from Virginia and South Carolina, promise to be unusually fine.

WHY THE BAROMETER RISES AND FALLS.

FIRST of all, what is a barometer? It is a tube or pipe, closed at one end and open at the other, and made of some transparent material, such as glass, so that it may be seen through. This tube is filled with the fluid metal called mercury, and when quite full, the thumb is placed over the open end (so as to keep the mercury from falling out) and the tube is turned upside down. So the closed end is at the top; the open end at the bottom, and if the thumb were removed the mercury would, of course, run out. But now suppose you wished not to waste any, and so put the open end into a basin, with some more mercury in it, and then remove your thumb—what would happen? "Why the mercury would all run out into the basin," some one will say. But this is a mistake, as the Italian philosopher, T. Torricelli, found out; and whatever size or length of tube be taken, the whole of the mercury will not run out, but a length of about thirty inches of the tube will remain full of mercury, and you cannot make it run out into the basin unless you either pull the open end of the tube out of the mercury, or make a hole in the closed end of the tube. This puzzled Torricelli for a long time, until at last the thought struck him that the only thing which was on the mercury in the basin was the air, and that it was probably the weight of the air pressing on the metal which prevented its running out into the basin. "If so," thought Torricelli, "then if I take my tube and basin of mercury up a mountain, less and less of the tube will remain full, for there is evidently less air above the basin at the top of the mountain than at the bottom." You may be sure he did not wait long to test the experiment, and, to his great delight, he found the mercury getting lower and lower in the tube, thus proving that it really was the weight of the air that kept it in the tube at all. And so the instrument was called a barometer, which is derived from the Greek, and means a weight measurer. But if the barometer is watched it will be found to contain different quantities of mercury on different days. On a fine day the mercury will, as a rule, stand higher in the tube than on a wet day, or just before rain; and now for the reason of this. Why does the barometer rise (or rather the mercury in it) in fine weather, and fall when it is going to be wet? Now, dry air is much heavier than wet air, or air containing steam. The consequence is that when the air gets moist it becomes lighter, and presses less on the mercury in the barometer, so more mercury flows out into the basin, and consequently less remains in the tube, or, as we express it, the barometer falls. Now, when the air is very wet, there is, of course, more chance of rain than when it is dry; for rain is formed by the cooling of the steam contained in moist air.—"Little Folks" for July.

THE ARCTIC WOODLAND.

POPULAR impressions are often far from the truth, and in regard to the Arctic regions they are undoubtedly so. A treeless land would be, in the opinion of most people, the idea which would suggest itself in regard to the regions in question. Yet this, though true, is not all the truth. Within the arctic circle are found trees, often forming considerable, though stunted, forests. In Eastern Siberia pines and other trees come down almost to the water's edge, while over all Western Siberia, Arctic Russia and Lapland the tree limits run within the Arctic circle; trees extend even to the North Cape. In Greenland we find, even in the most southerly parts of it, no herbage more worthy of the name of tree than the stunted birch, which in the more sheltered valleys of that country—equally inappropriately named with Iceland—attain the proportion of little shrubs; and it is not until we come to the milder latitudes of the Pacific that the tree line, which had described a southerly curve in the cold regions of Central North America, again rises to the north, and until we reach the shores of Behring Straits, we find nothing that we can dignify by the name of trees.

The wooded banks of the Yukon touch the Arctic Circle, and forests of white spruce are found on the Noatak, a river which falls into Eschscholtz Bay, which infringes on the Arctic Circle. In Lapland the spruce ceases at about the sixty-eighth parallel, and the Scotch fir at the sixty-ninth; but in Norway, owing probably to the presence of the warm Gulf Stream, which sweeps along the coast and into the Arctic Sea—at least as far east as Novai Zemlai—we find forests of Scotch firs 60 feet in height as far north as Altenfjord, and birches about 45 feet high, in an equally northern latitude. In latitude 70 deg. 25 min. the hardy Scotch fir still maintains its ground, though the spruce falls a degree or so further south. In the vicinity of Hammerfest, a well known Lapland town, in latitude 70½ deg. north, there are dwarf Alders and Aspens, Bird Cherries, Raspas and Currants. In the Scandinavian Peninsula, probably also owing to the warmth which a sea, unencumbered, and in addition laved by a current of a higher temperature affords, barley is cultivated as far north as the seventieth parallel, the latitude of Disco Island, on the Greenland coast, and oats up to the sixty-fifth "in sheltered valleys where rocks and cliffs reflect the sun's rays with much power."—*The Countries of the World.*

T. P. ROBINSON, Phila.—There are so many of the Bamboos natives of India, that it is hard to say what the Calcutta Bamboo may be. Seeds of *Bambusa spinosa*, which attains a large size, were distributed freely last season here by Lieut. Gen. Strackey (British Army). This variety coming from up in the mountains, promises better for our Southern States than any from Calcutta. We do not find any of the varieties quoted in any of our seedsmen's catalogues, but will try to get some for you. Quite a number of the more hardy Chinese and Japanese varieties are cultivated for decorative purposes in England and the South of Europe. We remember seeing a fine collection at James Veitch & Son's Coombe Wood Nursery some five years ago, all perfectly hardy and very beautiful in-

deed, planted as they were along a rivulet, the sloping banks being planted with the finer evergreens. Letter by mail.—Ed.]

II. S., Boston.—The spots on your Ivy leaves are the white scale insect, one rather difficult to eradicate when once it gets a firm hold; probably the best method is to pick off and burn the leaves most infested, and sponge clean those left with a strong solution of carbolic soap and water. Your plant will soon make new leaves, which keep clean by frequent syringing or sponging.

J. W.—Your plant is *Euphorbia marginata*, a native of the valley of the Mississippi, a very beautiful annual, often cultivated for ornament. As the seeds are quite hardy, it will grow again next season, from those that drop off, as they ripen. Another beautiful native variety is *Euphorbia corollata*. It is also perfectly hardy, and is herbaceous as well; the flowers have conspicuous white bracts, like a five cleft corolla, the whole plant very much resembling a large flowered Gypsophila, or Infant's breath, and well worthy of more general cultivation.—Ed.]

SANDWICH ISLANDS SURF BATHING.—It is very exciting, but the sea was not very rough. The surf board is a rough plank, shaped like a coffin lid, about two feet broad and from six to nine feet long. The men, dressed only in malos, carrying their boards under their arms, waded out from the rocks on which the surf was breaking, and, pushing their boards before them, swam out to the first line of breakers, and then, diving down, were seen no more till they reappeared as a number of black heads, bobbing about like corks in the water. What they seek is a very high roller, on the top of which they leap from behind, lying face downward on their boards. As the waves speed on and the bottom strikes the ground the top breaks in a huge comb. The swimmers appeared posing themselves on its highest edge by dexterous movements of their hands and feet, keeping just at the top of the curl, but always coming down hill with a slanting motion. So they rode in majestically, always just ahead of the breaker, carried shoreward by its mighty impulse at the rate of forty miles an hour, yet seeming to have a volition of their own, as the more daring riders knelt and even stood on their surf boards, waving their arms and uttering exultant cries. They were always apparently on the verge of engulfment by the fierce breakers, whose towering white crest was ever above and just behind him; but just as one expected to see them dashed to pieces, they either waded quickly ashore, or, sliding off their boards, dived under the surf, taking advantage of the undertow, and were next seen far out at sea, preparing for fresh exploits. The great art seems to be to mount the roller precisely at the right time, and to keep exactly on its crest just before it breaks.

EATING FRUIT.—While few articles of food are more or less injurious than unripe fruit, still it is almost impossible to take too many of those that are ripe, fresh and perfect when eaten in their natural state. The earlier in the day fruits are eaten the better. Their healthful qualities depend on their ripe acidity, but if sweetened with sugar not only is this acidity neutralized, but the stomach is tempted to receive more than it can digest, and if cream be taken with them the labor of digestion is increased. No liquid of any description should be drunk within an hour after eating fruits, nor should anything else be eaten within two or three hours after. Thus, time being allowed for them to pass out of the stomach, the system derives from them all their enlivening, cooling and aperient influences. The great rule is, eat fruits and berries while fresh, ripe and perfect in their natural state, without eating or drinking anything for at least two hours afterward. With these restrictions, fruits may be eaten in moderation during any hour of the day, and without getting tired of them, or ceasing to be benefited by them during the whole season.

THE ORIGIN OF THE GREAT LAKES.—At the late meeting of the Scientific Association in Buffalo, a paper was read by Prof. Newberry, attempting to explain the origin of the great lakes of this country. He asserts the sequence of events in the formation of the great lakes to have been as follows:

1. The Laurentian belt north of the great lakes, which has been a land surface since the beginning of the Palaeozoic era was formerly a high mountain range, the degradation of which has supplied the mechanical materials which compose the sheets of Palaeozoic rock that surround it. The erosion of these highlands has continued uninterruptedly till the present day, and was specially rapid during the period.
2. Previous to the glacial period, the elevation of this portion of the continent was considerably greater than now, and it was drained by a river system which flowed at a much lower level than at present. At that time our chain of lakes—Ontario, Erie and Huron—apparently formed portions of the valley of a river which subsequently became the St. Lawrence, but which then flowed between the Adirondacks and Appalachians, in the line of the deeply-buried channel of the Mohawk, passing through the trough of the Hudson, and emptying into the ocean, eighty miles southeast of New York. Lake Michigan was apparently then a part of a river course which drained Lake Superior and emptied into the Mississippi, the Straits of Mackinac being not yet opened.
3. With the approach of the cold period, local glaciers formed on the Laurentian Mountains, and, as they increased in size, gradually crept down on to, and began to encroach, the plateau which bordered on the west and south. The excavation of our lake-basins was begun, and perhaps in large part effected in this epoch.
4. As the cold increased and reached its maximum degree, a great ice-sheet was formed by the enormously increased and partially coalescing local glaciers of the former epoch. This many-lobed ice-sheet or compound glacier moved radially from the south, southwest, and western slopes of the Canadian highlands, its Ohio lobe reaching as far south as Cincinnati. The effect of this glacier upon Lake Erie and Lake Ontario would be to broaden their basins by impinging against and grinding away with inconceivable power their southern margins.
5. With the amelioration of the climate the widespread ice-sheet of the period of intensest cold became again local glaciers, which completed the already begun work of cutting out the lake basins. At first, the glacier which had before flowed over the watershed in Ohio was so far reduced as to be unable to overtop its summit, but, deflected by it, it flowed along its base, spending its energies in cutting the shallow basin in which Lake Erie now lies.

6. The melting of the glaciers was accompanied, perhaps, by a sinking of the continent, which progress, until the waters of the Atlantic flowed up the valley of the St. Lawrence to Kingston, and up the Ottawa to Armprior. The valleys of the St. Lawrence and the Hudson were con-nected by way of Lake Champlain, and thus the highlands of New England were left as an island. It is also possible that the sea-water penetrated to the lake basin through the valley of the Mohawk and through that of the Mississippi, but of this we have no evidence in the presence of marine fossils in the surface deposits. The great area of excavation in which the lakes lie was probably at this time filled to the brim with ice cold fresh water.

Sea and River Fishing.

FISH IN SEASON IN SEPTEMBER.

FRESH WATER.	SALT WATER.
Trout, <i>Salmo fontinalis</i> .	Sea Bass, <i>Scorpaena ocellatus</i> .
Salmon, <i>Salmo salar</i> .	Sheepshead, <i>Arochirus probato-</i>
Salmon Trout, <i>Salmo confinis</i> .	<i>capillus</i> .
Land-locked Salmon, <i>Salmo gloveri</i> .	Striped Bass, <i>Morone tinnectus</i> .
Grayling, <i>Thymallus triolator</i> .	White Perch, <i>Morone americana</i> .
Black Bass, <i>Micropterus salmoides</i> ;	Weakfish, <i>Cynoscion regalis</i> .
<i>M. nigricans</i> .	Bluefish, <i>Pomatomus saltatrix</i> .
Masalonge, <i>Esox nobilior</i> .	Spanish Mackerel, <i>Cybinus maculatus</i> .
Pike or Pickerel, <i>Esox lucius</i> .	Cero, <i>Cybinus regalis</i> .
Yellow Perch, <i>Perca flavescens</i> .	Bonito, <i>Sarda pelagica</i> .
	Kingfish, <i>Menticerurus nebulosus</i> .

FISH IN MARKET.—Fish continue plenty, and prices are still down, as will be seen from our quotations for the week which are as follows:

Striped bass, 18 to 20 cents per pound; smelts, 20 cents; bluefish, 8 to 10 cents; salmon, frozen, 30 cents; mackerel, 15 to 25 cents; weakfish, 10 cents; Spanish mackerel, 18 cents; green turtle, 15 cents; terrapin, \$18; halibut, 15 cents; haddock, 6 cents; king-fish, 25 cents; codfish, 8 cents; black-fish, 15 cents; flounders, 8 cents; sea bass, 18 cents; eels, 18 cents; lobsters, 8 cents; soft clams, 30 to 60 cents per 100; Salmon trout, 12½ cents; sheepshead, 25 cents; whitefish, 15 cents; sunfish, 10 cents; yellow perch, 10 cents; hard shell crabs, \$3.50 per 100; soft crabs, \$1.50 per dozen.

MASSACHUSETTS—East Templeton, Aug. 20.—Occasional strings of trout are caught, but they run rather small. A friend recently caught seven, ranging from fingerlings to three-quarters of a pound. Black bass, which were introduced into the ponds in this section from three to five years ago, are now affording fine sport. C. B. G.

Newburyport.—A live seal, weighing 15 pounds, was captured in a seine at Plum Island point recently.

CONNECTICUT—Niantic, Aug. 19.—Is there any law in this State regulating the size of meshes in nets used along the coast? I should think that the Fish Commissioners might do something to prevent the wholesale slaughter of fish too small for use. Sport here is most miserably dull, all owing to the abominable nets that stretch across the harbor, taking everything that comes along. Occasionally, by singular good fortune, a bass manages to get as far as the bridge and bless us with a bite; even this is a relief, and if one fisherman loses his bait, immediately a rush is made for our rods, each being anxious to capture the striped beauty. The best luck so far has fallen to the lot of Mr. J. J. Le Count, he landing four one day, smallest 4 lbs., largest 7 lbs. Your humble correspondent has caught but one, weight too small to mention. At Konomas good sport is had with the black bass and pickerel. I am glad to see the boys of New London are repenting of their evil ways, and some of them having taken to reading your valuable and entertaining paper, I feel sure they will abandon their poaching and piratical practices. SOALES.

[There is no law regulating the size of mesh; but the law forbids any bass, pike, pickerel or muscalonge being taken otherwise than by hook and line.—Ed.]

NEW YORK—Waterville, Aug. 28.—I have just returned from a campaign expedition on Chataqua Lake, N. Y. The fishing in Chataqua Lake at this season of the year is not good. Even the professional fishermen would not average more than one pickerel a day. It is too late for bass, and I only know of two bass being caught during my two-weeks' stay. Nothing as yet has been seen of the salmon trout with which Seth Green stocked the lake three years ago. I could not find any one who had ever seen one. Perch in Chataqua, seldom if ever, grow to be more than half a pound in weight. All in all I don't know a poorer place for fish in August than Chataqua Lake. HARRY N.

New Rochelle, Aug. 31.—A live dolphin six feet long and weighing over five hundred pounds was caught off New Rochelle on Tuesday last and has been added to the Aquarium collection.

PENNSYLVANIA—Sharon, Aug. 27.—James Roy succeeded in capturing nine black bass with the fly last Saturday evening between sunset and dark. He had two flies, a red bib and a gray one, made from a drake's wing. He hooked two at one cast, and landed them safely. This was done right in town, where the river (the Shenango) is "fished to death." TOMMY.

Sharon, Pa. Aug. 20.—In your issue of last week (Aug. 16), A. W. F., Orangeville, Ohio, says he can see bushels of black bass in the Pymatuning, when the water is low, and has tried to take them with minnows, artificial flies, soft shell crabs and red flannel after night, but in vain. Perhaps A. W. F., does not understand the way to fish with the fly, and perhaps the bushels of bass that he sees are suckers.

Orangeville, Ohio, is only eight miles from here. I have caught a great many bass in the Pymatuning, with the fly, but I have not been up there this season yet. It was only last Saturday evening that I caught seven bass with a red fly—no flannel—the largest weighing 1½ pound. If A. W. F. would put on two flies, a red one and a white one, and commence fishing at sundown, I will warrant he will take bass, provided there is bass where he fishes, and he uses the flies right. I remember two years ago a friend of mine, Mr. H., asked me for a couple of flies, as he wanted to try that kind of fishing. I gave him my casting line, and the same flies that the day before I killed thirteen bass with, ranging from ¼ to 2 pounds

We went to Fruit's Mill where I got the thirteen the day before, and when he came home in the evening he showed me the largest black bass I ever saw—54 pounds—he had five or six others. I said to him, "Mr. H., you have done very well, did you get those bass with the fly?" "No," he said, "I got them with the minnow, they wouldn't bite at the fly to-day at all. I fished till three o'clock, and never got a bite, then I set the flies and went away to get some minnows, and I got all these bass with the minnow." "You set the flies, how did you set them?" I asked. "Why, I threw them into the river and put a stone on the butt of my pole, and went up the run after minnows." I learned from him that he fished with the fly in the same manner that he would fish with the minnow or crab, *i. e.*, throw them in and let them stay there a while.

ROU ROY.

MARYLAND—*Baltimore, Aug. 25, 1877.*—In the FOREST AND STREAM of Aug. 23, in "Our Washington Letter," the writer speaks of excellent bass fishing in the Potomac, Shenandoah, etc. Now, I took a trial at bass fishing on the Potomac, at Little Georgetown, down to Goulson Mill or dam No. 5, and in the two-days' fishing did not catch half a dozen fish, though I used grasshopper, minnow, flies, legramites and toads, and got myself blistered by the sun, and wore my pantaloons out sitting on the edge of the dam. There were around me at least a dozen men fishing, and also an out-line across the dam with thirty hooks on it, and I saw two men go to that out-line five times and catch nothing. There was pointed out to me a man that had been fishing the day before and caught nothing, and he had only caught one that day I was there. The two-days' fishing amply repaid me, for I enjoyed the air of the mountains and the magnificent scenery and the burning sun; for one can enjoy such luxuries when they can leave their business only for two days; but when your correspondent writes of the excellent fishing in the Potomac I feel rather bad at having been up there and not found it. I would like to know at what particular locality he found the bass. I got off at North Mountain and fished from Little Georgetown down to dam No. 5. JOHN GEORGE.

MICHIGAN—*Detroit, Sept. 1.*—On the 28th ult. Joseph Antes, L. W. Tinker and George Foot caught 60 perch and 7 black bass at the St. Clair Flats, in four hours' fishing. August 29, Mrs. T. McGraw caught 22 fine black bass. August 30, Mr. Billings, of Ann Arbor, H. M. Dean and Jessie Farwell caught 58 perch and 18 black bass. August 31, Judge Durtee, Thos. McGraw and Louis Hallock caught 38 black bass; one that the Judge caught weighed five pounds.

Green Bay.—The *Advocate* thinks the sponge fish has been discovered in the bay.

WISCONSIN.—*Westboro Station, Aug. 27.*—The best sporting place near here is twelve miles west. There is a road to it, and a family living in an old logging camp who have plenty of room for twenty men. The Jump River is within one mile of this camp, and is the best place for muscalonge by all means; are caught as fast as they can be pulled out, and are all large, ranging from five to twenty pounds.

OREGON—*Portland, Aug. 24.*—It is generally believed that the Utah trout in Provo River are not known to rise to a fly. This is incorrect. In 1870 I was an officer in the 13th U. S. Infantry, and was stationed at Provo, from the latter part of July until the May of the following year. I put in my spare time in fishing, and caught a great many trout. I used nothing but artificial flies, and caught as many as any one else—and larger fish than any. One was five pounds. The flies I had best luck with, were from William Read & Sons, of Boston, which they called a grasshopper—green body, red tail and gray, brown mottled wings.

Since I have been here have not had time to go fishing, but live in hopes. There are plenty of fish in the streams away from the city. W. V. S.

MONTREAL, Sept. 1.—Mr. J. H. Stearnes, of the Albion Hotel, had fine sport recently in the Ottawa River, near Vandrell, using a light trout rod and phantom minnow. Among the numerous fish that he killed were a ten-pound catfish and a large muscalonge, which made a two hours' fight of it before he yielded to mine host's pliant 12-oz. green-lead. SANSTEAD.

CANNING SALMON.—The salmon industry of the Columbia River employs 10,000 people in its various branches; the value of the export this year is estimated at \$5,000,000. The *Pacific Rural Press* gives this account of the process by which the fish are prepared for exportation:

Just as soon as the fish are caught, if not drowned in the net, they are killed by a blow on the head. The average weight of salmon is twenty pounds. When brought to the cannery the fish are piled upon the wharf, and we have seen 4,500 salmon in a single pile. From this pile they are taken to a trough, thoroughly washed and placed on a long table; here, with a single blow of a huge knife, the head is slashed off, with a single motion of a similar knife, the fish is split open and disemboweled. The head and entrails are thrown away at many of the fisheries; at some of them, however, they are made into a very good article of oil. After the fish are cleaned, they are thrown into brine vats, where they remain for a time—this process is known as salting; they are now taken and placed, one at a time, on a small table with a cutting attachment, and with a single stroke of the lever, the fish is cut into exactly the proper size to fit the cans.

Another set of hands take these bits of fish, place them doltly in the cans, whence they go to other workmen, whose duty it is by means of an apparatus, to put in each can a small amount of brine, for canned salmon have nothing else in it. Now, the cans filled with the raw fish, pass to workmen who apply the lid and solder it on. Next, the cans are placed, hundreds together, in iron rings, or, in some of the canneries, into iron squares, each form holding about 600 cans, and by means of cranes all are lowered into steam boilers, where they are cooked for an hour. Now, quite a nice operation takes place, similar to that employed by the champagne-wine manufacturers, which is called venting. A hole is pricked in the top of the can, and the air and gases generated are allowed to escape, when the little vent-hole is instantly resoldered. A second cooking now takes place, when the culinary portion of the canning is ended. The cans are again taken from the boilers, and are showered with cold water. If the vacuum is perfect and the package sound, the top of the can caves in and assumes a concave form.

CLUB HOUSE, BLOOMING GROVE PARK, PIKE CO., PENN., Aug. 30.—We have among our guests one Mrs. Hardie, of New York, who, though only an amateur fisher, has far excelled the old sportsmen this year. After breakfasting this

morning on some fine large cat fish caught by herself with her pretty bamboo rod, she and little Charlie Daggett, an interesting lad of some six summers, started off for "Bass," the proprietor of the club house being in close proximity on the lake in another boat. Little Charlie caught the first bass, weighing two pounds and a half, with only a drop line and trout fly, while Mrs. Hardie, taking great precaution not to lose any of her favorite bait (bull frogs), roved off to a sequestered spot and caught the greatest number of bass caught at any one time this season, the largest weighing a little over three pounds. Her merry laugh and cheerful face must have enticed the fish. She enjoys fishing, rowing and croquet hugely, and all are constantly seeking her society for the purpose of enjoyment and indulging in her favorite game of "cassino."

Mrs. H. is about to leave us next week. The ladies, children, and particularly the gentlemen, will, I know, exceedingly regret her departure, she being the "life" of the house during her sojourn here. To-day we start off again, a prize to be awarded to the best fisher, or in other words whoever catches the most bass on Lake Giles. A MEMBER.

A BIG HAIL OF SHARKS.—A citizen of Deere county, N. C., one day last fall made a haul with his seine in the ocean, and caught 102 sharks. The seine was only 280 yards long, and he says that twice as many sharks got away as he landed.—*Ellenton Times.*

[This beats "four of a kind."]

—Large quantities of blue fish are now in the Great South Bay. The fishermen are satisfied that the pound nets have kept them out heretofore, and they are making more money with hand lines than they did with their nets, as blue fish were seldom caught in them. The catch for the past week has averaged very high, some boats taking 175 to 200 per day.

ALLIGATOR IN DETROIT RIVER.—On the 20th ult. Alex. Campen discovered an unknown animal in the Detroit River, near Belle Isle, which he took to be a veritable sea serpent. After expending considerable powder and shot, the saurian was captured, and proved to be an alligator, upward of five feet in length. The capture of such an animal in these waters was a matter of considerable comment, until it was discovered that he had escaped from the aquarium of Henry Wesson Hamtramac some two weeks previous.

—The Earl of Dunraven is in New Brunswick, on a fishing tour.

MOVEMENTS OF THE FISHING FLEET.—The number of fishing arrivals the past week has been 75, as follows: Banks, 14; Georges, 37; Bay St. Lawrence, 5; Greenland, 1; shore mackereling, 18. The receipts of mackerel have been 1,000 bbls. from the Bay, and about 800 bbls. shores; codfish, 925,000 lbs. Bank, 550,000 lbs. Georges; halibut, 470,000 lbs. Bank, 22,000 lbs. Georges, 100,000 lbs. fletched from Greenland.—*Cape Ann Advertiser, Sept. 1.*

GRAYLING FISHING ON THE SAUBLE.—As the best time for grayling fishing is said to be September, and as that time is drawing near, I will for the benefit of your readers who are that way inclined, relate the experience of three fishermen, who, having heard good rumors of the game qualities of that fish, and the great numbers of them to be found in the Au-Sable, concluded to test these reports. The outfit in boats, etc., was quite a problem, none of us having ever seen the head waters of the stream; hence we knew not the kind of a boat needed. We finally decided on a flat-bottomed one, fifteen feet long and three feet in beam, which, with the supplies and equipage, was shipped in advance to Otsego, on the Jackson, Lansing and Saginaw R. R. At this point we learned that there would hardly be enough water in the North Branch for the purpose of navigation, and were advised to go into Chub Creek, a tributary of the same and much deeper. Following that advice, and an ox team through the woods for about six miles, we entered the creek below Dam 1, and proceeded to fild our way down a stream of which we were totally ignorant. I will here explain the use of these dams and the impediment they offer to navigation. They are built for the purpose of raising a head of water to float logs down the stream when the natural supply is not sufficient for that purpose, and when they are not in use there is little trouble in getting over them, as the sill is as near the natural water as is possible to be. The trip down the stream was delightful, and water plenty, with the exception of a short piece below the dam. Ducks and grouse were found in abundance, and killed as needed, as we floated along. The number of deer tracks seen indicated plenty of that kind of game. Our first deer was seen soon after starting, but, as the guns were in their cases, it got off in safety, and threats as to the fate of the next one were in order. A few miles down the stream we passed through Chub Lake, a beautiful little sheet of water, well stocked with black bass, but as we were after grayling, we passed on, entering the North Branch, where our troubles commenced. Here the water was so shallow that we had to tow our boat the greater part of the afternoon; passed Dam 2 without much trouble, and camped at dark in a cedar swamp. Sunday morning came, and as two of the party had scruples about running farther that day, the tempter came in the shape of our chum Jim, who suggested that we put the things into the boat, keep its nose out of the bank and let it run itself. Not knowing what was before us, and not having reached our fishing ground, the temptation was strong and we fell; but mark the sequel! We had not been long on the way when we got aground, and as Jim had been the cause of our starting he promptly got out and towed us over, when H. and I left him to run the boat down to Dam 3, agreeing that the party reaching the dam first should wait for the other; so we parted company, but missed the dam, and after what seemed a fourteen-mile walk we struck the river at a dam, but failed to find the boat. Something had to be done to appease hunger, as it was now near night, so we rigged a fly-rod out of a birch sapling, and proceeded to ascertain the number of the dam, as we had been assured

that we would not find our fish until we reached Dam 4. The first cast was productive of nothing, and our prospects of a supper were poor. The next brought a fine rise and a catch, and on landing it we beheld our first grayling, and in accordance with previous information we were forced to conclude that the boat was, like the Indian's wigwag, lost. However, in less than half an hour we had plenty of grayling for supper. In all my experience I had never found fish so numerous, and so willing to be taken, two at a time being quite a common occurrence. Fly fishing was a new thing to H. who watched the proceedings with great interest and conflicting emotions. On Monday he made his maiden effort, and as he thought, all alone, having made a good fire to keep me comfortable and asleep while he did so. On awakening I missed him, but soon found him up to the thighs in a beautiful pool doing nicely, having caught seven beauties. His opinion on fly fishing was that it beat anything that he had ever tried. To find Jim and the boat was the next thought.

After breakfasting on "planked grayling," we started up stream, and after a long and tiresome wade, Jim was discovered keeping her nose out of the bank, and greeted with a shout that made the welkin ring. We boarded him, and running down to Dam 4, landed our duds, and were soon quite happy over a good cup of coffee, relating the experiences of the past twenty-four hours. Fishing now commenced in earnest; after a short trial we found that only a small portion of each day could be devoted to that sport, unless a great many fish were instantly destroyed. The grayling affords sport equal to the *Salmo fontinalis*, but possessing a smaller and more tender mouth, requires a small hook and more careful handling. From Dam 4 to where the North Branch joins the main stream, there are beautiful pools nearly all the way, with fine gravelly beaches, affording good casting room and a fine opportunity for landing fish without the aid of a net. We spent a week very pleasantly between these points, but I cannot give the distance, as the river is so crooked it would only be a guess. From the junction down, the fishing is best done from a boat, and on that account is not so pleasant. Having spent ten days fishing we started from Big Creek of the main stream, five miles below the junction, for Lake Huron, which we reached Sept. 22d, having spent thirteen days on the stream.

As this is already too lengthy, it would be imposing too much on good nature to relate the many laughable incidents that occurred; how Jim heard a bear foraging in our larger one night, when, slipping out rifle in hand, he saw it take cover under a leaf; how the stew got into the fire, etc. Parties who do not wish to go as far as Otsego can enter the main stream at Grayling station and reach good fishing in a short time; by following this route they will find excellent fishing at the mouth of Big Creek. At Otsego there is a good hotel, and if it is not convenient to bring a boat there will be little trouble in having a punt built which will answer every purpose. When once on the stream they will be charmed with its beauty and more than charmed with its swiftness and the excellent fishing it affords. A party of five, including the party of last year, will try it again in September, and in due time you will learn the result. QUAD.

Port Huron, Mich., Aug. 18, 1877.

## The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

ST. LOUIS DOG SHOW.—The Second Annual Bench Show will be held under the auspices of the St. Louis Fair Association in this city, Oct. 3 to Oct. 5, for sporting and shepherd dogs only. Lincoln has been engaged as manager, and Mr. John Davidson's services as judge have been secured. Chas. H. Turner is kindly giving his time and attention to the details of the coming show, but the dogs of the St. Louis Kennel Club will not be entered for competition. A thousand dollars in cash for prizes has been given by the Fair Association. The catalogues will be out in a few days and can be had, with all particulars, by addressing C. H. Turner, Fair Association, St. Louis. Our fair of itself is worth coming from the East to see, but to dog owners the show ought to be attractive enough to bring them out in force. Our Western men attend the Eastern shows generally, and we want our Eastern friends to come out and see us. Railroad fares will be reduced. Any one coming from the East to exhibit here will meet with a hearty welcome from St. Louis sportsmen. J. W. M.

THE BOSTON DOG SHOW.—The exhibition opened at Music Hall, September 3d, and has already attracted thousands of people, who come and see and go away perfectly satisfied. It is, indeed, the best exhibition in New England, and compares favorably with the bench shows of other cities. Upwards of two thousand visitors were admitted on Monday, and the number was largely increased Tuesday and Wednesday. The owners of Boston dogs, with an eye to their comfort, remove their animals each night, returning them in the morning, at which time it is worth one's while to view them, numbers arriving at the same time. Some are full of life, and evidently anxious to mingle with the howling, yelping, growling throng, while others, as they hear the disturbance, tug at their tethers, and exhibit their displeasure by barks and yelps. More quiet was noticeable Wednesday, the canines having evidently become somewhat reconciled to their position. The house pets seem least willing to be comforted, although they receive a great deal of attention from lady visitors. It is interesting to watch the people making the grand rounds, and a close student of human nature soon selects the admirers of each of the numerous breeds represented.

NAME CLAIMED.—I hereby claim name of Ned II. for my red Irish setter dog, by Lakin's Ned, out of Dunham's Jessie. New York, Aug. 29. R. RUSMORE.

NAME CLAIMED.—I claim the name *Island Belle* for my black and tan Gordon setter bitch, by Dr. Aten's Glen, out of Fisher's Border Lilly, whelped June 26, 1877.

CLINT WISNER.

—I claim the name of *Friend II* for my Irish Gordon bitch—color, red, with white markings, out of Geo. Payne's Fan by Arnold Burgess' champion Rufus, whelped April 20. Also, the name of *Bob* for my dog puppy, out of Von Culin's Moll II., by Rufus II., whelped June 4th and is deep red, no white.

Pittsburgh, Pa., Sep. 3. F. A. TREMAINE.

DOG SWIMMING MATCHES.—This is a novel form of sport lately introduced among the dog fanciers of San Francisco. The course is from Rock Island to Long Bridge, and the winning dog is decorated with a silver collar. At a late match, the victor, a great black dog, bore the euphonious name of "Pedestrian Jimmy."

NAMES CLAIMED.—We claim the following names for our Rufus-Belle pups—all red, no white: *Red Cloud*, *Eclipse*, *Crusader*, *Admiral*, *Mystery*, *Primrose*, *Pamela*, *Icucuba*; and the following names for our Gordon setter puppies, whelped out of our Border Lilly, by Dr. H. F. Aten's Glen: *Tarquin*, *Dorsot*, *Oxford*, *Charon*, *Gaiety*.

Brooklyn, N. Y., Aug. 29. FISHER & BRICKERTON.

—The dogs of Jacksonville, Florida, have been poisoned wholesale. A reward of \$100 has been offered for the discovery of the party who did it.

New Publications

THE SPORTSMAN'S GAZETTEER. By Charles Hallock, New York. FOREST AND STREAM Publishing Co., 1877. Price, \$3.00.

We propose to take advantage of Mr. Hallock's absence to have our say about his new book, and so feel at liberty to say some things which, were he here, might not be allowed to appear.

There had long been felt among sportsmen the want of a comprehensive, reliable work of reference, which should give information upon the various subjects of natural history, and other matters pertaining to a sportsman's life. When, therefore, some time since, Mr. Hallock intimated his intention of supplying such a book, the announcement was received with very general satisfaction. His eminent qualifications for such a task were well known and need slight mention here. Himself an enthusiastic devotee of the rod and gun, and a practical sportsman, his personal experience in the camp and on the cruise have been wide and varied. His wanderings have extended to every more important fishing and hunting localities in the United States and Canada. Many of these travels have borne fruit in frequent and rare contributions to the magazines, and it may be here mentioned that many of these articles—notably that on Labrador, written years ago for *Harper's*—are still referred to as authoritative. His position for several years at the head of this journal has made him familiar with the every need of a sportsman, and admirably fitted him for the preparation of a sportsman's encyclopedia. A wide circle of acquaintances, moreover, afforded peculiar facilities for supplementing his own information by that of the best authorities and the most intelligent observers throughout the country. All these, together with the well known thoroughness and care which mark all of Mr. Hallock's editorial and literary work warranted us in anticipating and demanding that the *Gazetteer* should be comprehensive, clear and practical, and, above all, strictly accurate.

Now that the book has appeared and is entering upon its second edition, it may not be amiss to ask with what success the author has filled these high expectations.

And first we may say that in all these three particulars, the work has been to us a constant surprise and marvel. Into this handsomely printed and attractive volume of 900 pages has been condensed satisfactory information upon every conceivable subject that would come within the legitimate scope of the work. Every game, animal, bird and fish of every State, territory and province in North America is here clearly and concisely designated and described, with its scientific, popular or local name, specific characteristics, habits and every truly sportsmanlike method of its capture. The subsequent chapters devoted to blinds, decoys, and all other matters pertaining to hunting, and to hooks, lines, flies, fly-tying and the other branches of the piscatorial art are marked by the same full, clear, and eminently practical treatment. We have already expressed our high appreciation of that part which is devoted to the selection, care and management of the dog, and need only add here that subsequent investigation and practical tests confirm the opinions before expressed that the sound sense and evident care with which these pages are prepared make this the best and most reliable extant treatise on the dog. The shot gun, rifle, sporting boat and canoe, and every implement and utensil employed for sporting purposes are discussed, and the most specific directions given for their use and care; while in the chapters devoted to woodcraft, taxidermy, and hints for camp and cruise, information is given upon a variety and range of topics, of which the bare enumeration and range would exceed our space. Perhaps the most vulnerable portion of the book is the Second Part, of two hundred closely written pages, which are taken up with a Sportsman's Directory to the different fish and game resorts of the various States and counties. The migrations and yearly variations in the game of any given locality renders the attempt to give specific local information somewhat hazardous. The fact, however, that the Directory is constantly receiving the indorsement of local critics affords evidence that even here the author has not gone amiss.

In short, Mr. Hallock has prepared a book which is a complete guide for the young sportsman, and an instructive and congenial companion for the old and experienced—a *vade mecum* for the camp and cruise; a work which is complete, and must long remain the standard authority and book of reference on all sporting matters.

*Harper's* holds a very large and a very secure position in the heart of the magazine reading public, and we doubt if this place, gained long ago, could ever be satisfactorily filled by any of the younger candidates for popular favor. Certain it is that the readers of *Harper's* have nothing to complain of this month, either in the variety or the amount and general excellence of the matter furnished them. There are eight illustrated articles and two poems with illustrations. "The Lading of a Ship" is described by Ernest Ingersoll, who finds poetry in the strange depths of the bonded warehouse. In "American Workmen from a European Point of View" Leonard W. Bacon discusses the influence upon Swiss workmen of the American exhibit at Philadelphia. Edward Howland has "A Railroad Study," and W. H. Hierick contributes a most timely article upon "General Stark and the Battle of Bennington." Other articles are "A Group of Classical Schools,"

"Large Schools vs. Small Schools," "Prince Edward Island," "Mount Shasta," a paper on thermometers, by Dr. Draper, and another on Tom Moore's visit to America, by Benjamin J. Lossing. There are three short stories, besides the continuation of Blackmore's serial, "Eroma."

*Scribner's*.—The series of articles discussing American sports have become a recognized and most enjoyable feature of that delightful monthly. The papers which have already appeared are: "Salmon Fishing," by A. G. Wilkinson, in September, 1876; "Bay Shooting," by T. Robinson Warren, in December, 1876; "Trout Fishing in the Bangley Lakes," by Edward Seymour, in February, 1877; "Some American Sporting Dogs," by Wm. M. Thielson, in April; "Sea Trout Fishing," by A. R. MacDonough, in June; "Bow Shooting," by Maurice Thompson, in July, and in the Mid-summer Holiday Number were very interesting papers on "North American Grouse," and "Canadian Sports." Perhaps none of these papers has secured more general attention than that on archery, by Mr. Thompson, which has really been the cause of a promised revival of that ancient and worthy pastime. In the September number Mr. Thompson, in reply to a large number of letters upon the subject, gives the following rules for shooting:

"Your bow being first strung or braced, hold it horizontally before you, i. e., with the bow at right angles with your body, your left hand firmly grasping the handle; slip an arrow under the string and over the bow at the right edge of your left hand and touching the left forefinger knuckle; place the arrow nock well on the string; turn the palm of your right hand up, placing the first three fingers thereof under the string, hooking their tips round it with the arrow between the first and second, and the thumb extended along the shaft near the hook. Now, keeping all holds thus, turn the bow till it stands vertically before you, your arrow resting against and above your left forefinger knuckles; turn your left side to the target, fix your eyes steadily on the center of the bull's-eye, draw the string back till your right thumb touches the upper tip of your right ear; squeeze the bow-handle powerfully with the left hand, steady! let drive! Now, if you have paid good heed to the above directions and have been sure to keep the arrow nock well on the string, you have made a pretty shot. Do not attempt to take aim. Do not even think of guiding your arrow with your eye. The only way to become a good bow-shooter is to learn to guide your shaft by feeling, i. e., by your sense of direction and distance. Your eyes must be guided, so to speak, upon the target. This is the one great rule of archery. Any other will lead to slovenly and wild, irregular shooting.

Future papers in course of preparation are promised on "Moose Hunting"; "Fox Hunting in New England"; "Duck and Terrapin," and other subjects equally of interest to the sportsman and vacation pleasure seeker. The September number contains among other good things—papers on "The Immigrant's Progress," "The Fan," "The Land of the Arabian Nights," "Old Streets and Houses of England," "An Island of the Sea," Fort George Island, Florida; "Wells and Cisterns as a Source of Water Supply," and "Microscopical Corals."

The Ferns of North America is the title of a work soon to be issued by F. B. Casino, Naturalists' Agency, Salem, Mass. The reel of a carefully prepared and thoroughly illustrated work on the American Ferns, has long been felt by those studying these beautiful plants. As yet, no work whatever has made its appearance which contains even a description of all our American species, and the few that have been figured at all, are found scattered through so many foreign works that it is quite impossible to find them, even in an excellent library. The subscription price will be \$1.00 per part, which, it is believed, is lower than work of the same nature and quality yet published.

Answers to Correspondents.

No Notice Taken of Anonymous Communications.

O., Wisconsin.—We do not know the party you mention?  
W. C. T., Port Henry, N. Y.—Your description is too meagre to judge from.

J. M. D., Irwin Station, Pa.—Description too meagre. See head of our kennel column.

D. B. B., Scranton, Pa.—Your description is too meagre. See note at head of kennel column.

Edg. P., City.—We have had no experience with the tackle you speak of, but see no reason why it should not be available.

J. M. H., Phila.—Where can I obtain a bicycle and at what price? Ans. Peck & Synder, Nassau St., city. Prices vary from \$20 upward.

F. R. H.—Will you please give me the price of a copy of the FOREST AND STREAM that has the method of embalming deer heads? Ans. 10 cents.

W. N. R., Bethel, Conn.—What hunting will I find around Milan In Sullivan Co., Mo., and fifty miles further West? Ans. Grouse, wild fowl, etc.

E. S. W., Corning, N. Y.—Can you recommend a book on the treatment of dogs? Ans. Hallock's "Gazetteer." Price \$3.00. For sale at this office.

A. H. S., Marshall, Texas.—Be kind enough to let me know where I can get Laverack's work on the setter? Ans. Parker Brothers, West Meriden, Conn.

B. F. J., Kansas City, Mo.—Can you tell me where and from whom I can get genuine shepherd dogs? Ans. Write to F. Bronson, 76 Wall street, New York.

S. S. B., New York.—Please inform me what kind of duck shooting one may have on Canandaigua Lake about September 15. Ans. Very little sport is to be had on Canandaigua Lake.

A. B. C., Nahant, Mass.—Will you kindly inform me what Mr. Hallock intends to sign his pieces from the West that I may know when I read his? Ans. Look at the paper and you will see.

T. M. O., Woodstock, Ohio.—What is the best kind of metal for a breech-loading shot gun? Ans. Damascus is so considered, though laminated steels, in the opinion of many, equally as good.

E. C. M., New York.—Please be kind enough to inform me in next issue of a suitable place to go gunning on or about November 6, say four or five hours' ride from New York city, ducks preferred. Ans. Go to Barnegat Inlet, N. J., or to Lane's Good Ground, L. I.

J. G. M., New York.—Is 3 drachms of powder and 1 1/2 oz. No. 8 (Tatham's) shot heavy enough for Bogardus' glass balls? Ans. Add half a drachm more of powder if needed, and use but one ounce of shot. Bogardus uses 4 to 5 drachms powder and 1 1/2 shot in 10 gauge.

M. S. N., Johnstown, N. Y.—Our sportsman's club have bought a Bogardus trap. Please tell us how to use it. What distance from marksman should it be sprung? Should marksman stand in rear or right angles? What amount and size shot to use, etc. Ans. See our last issue for Bogardus' rules, etc.

W. L. A., Philadelphia.—1. Were there any indigenous mammals in Bermuda? 2. Are all the bears of the United States now considered to be varieties of *Ursus arctos*? 3. Have there been any jaguars killed within the limits of the United States of late years? Ans. 1. Yes. 2. No. 3. Yes.

B., Collinsville, Conn.—I want something with which to condense fresh from sea water while coasting on a schooner about Florida. Have you knowledge of a practical condenser for the purpose? Ans. Yes. If you are in the city and call we will be happy to explain, but cannot afford the space here.

E. A. L., East Bridgewater, Mass.—I would like to know if there are any of the true old thick-skinned, staunch and slow-working Spanish pointers in the U. S., and if there are who is the owner and breeder of them? Ans. Yes, but we do not know of any one who has them for sale at present.

H. C., New Berlin, N. Y.—Have the Supervisors the right to lengthen the close season on partridge in the State? They have made the close season in this county (Chemung) Sept. 15. What I want to know is will I be liable for killing between the first and the middle of Sept. on account of the Supervisor's laws. Ans. Certainly they have; and if you violate the provisions you should be punished.

C. E. J., East Templeton, Mass.—1. Very good. 2. Arsenical soap is easier bought than made. There are different ways of making it, one of which is to melt some clear soap and stir in arsenious acid; but pure arsenic is every way to be preferred for preserving specimens, being less injurious to the worker.

MILLER & SMITH, New York.—We cannot give you estimates as to stable, stable gear, horses and carriages, as such depends entirely upon the tastes and demands of the purchaser. As regards diseases of horses, the works that are considered as standard are too numerous to mention. Youatt is one of the very best, though a little antiquated.

TOMAH, Tomah, Wis.—Should the trap lie in a horizontal position on the ground? Can you tell size of shot Capt. Bogardus generally uses in shooting the balls? We have placed our trap on a plank and inclined the plank at an angle of say 10 degrees. Is there any rule against this? Ans. 2. Capt. Bogardus shoots No. 9 shot. 3. No, it is frequently done. This answers your first question also.

H. J. C., Milton, Pa.—Where can I find some work on the raising of rabbits, and how much will it cost? 2. Does the "Sportsman's Gazetteer" give it? 3. Where can I procure the game laws of this State, and what do they cost? Ans. 1. "Household Pets," price 75 cents. 2. No. 3. At this office may be obtained a copy of "Fur, Fin and Feather," containing the game laws of all the States and Canada; price 50 cents.

J. B. R., Philadelphia.—I am about purchasing a breech-loader of Nichols & Lefever, and before ordering would be pleased to have your opinion as to what would be the best gauge and proper weight of gun for me to order? Had thought of getting a 12-bore, 8-pound gun, but would be glad to have your opinion before purchasing? Ans. Such a gun would undoubtedly be of excellent service for general shooting, and would be our choice.

CHAS. A. WILLIS, Rockville, Conn.—An unbridged and illustrated copy of Webster's dictionary will cost \$12. Baird, Brewer and Ridgway's "Birds of North America" is the book you want; 3 vols., price \$10 per vol., or where illustrated in colors, \$15 and \$20, according to whether the heads alone are desired colored, or the complete bird. This is a grand work, and is complete in all details. The other books you mention are of little value.

A. S. F., Camden, N. J.—Your pups died from *pyemia*, induced from nursing the bitch in her diseased condition. Nello demands tonic treatment and generous living. Give her Casswell, Hazard & Co.'s elixir of calasaya iron and strychnia in 20-drop doses three times a day, gradually increasing until she can take 60 drops—a teaspoonful. Also give her one-half grain of leptandrin, one grain of musk, and two grains of muriate of ammonia every three hours. Pay strict attention to cleanliness, etc. Your dog ought to die from the dosing she has received.

SUBSCRIBER, Phila.—Yesterday a clapper rail was shown the writer which had been picked up on the line of Penn. R. R. Its wings were broken and its flesh was considerably bruised. As it was found on the top of an embankment and above the level of the telegraph wires it was supposed to have been killed by flying against a locomotive headlight. Has anything of this kind come under your notice before? Ans. Such accidents are not at all uncommon. We frequently hear of grouse and quail and even turkeys being killed in this manner.

CONSTANT READER, Minneapolis, Minn.—1. What is your opinion of the Parker breech-loader? 2. Will a gun with laminated steel barrels shoot stronger or better than one of same make, bore, etc., with twist barrels? 3. Can the "Sportsman's Gazetteer" be bought in this city, or in St. Paul; if not what would the postage be to have it sent by mail? Ans. 1. We do not discriminate between makers. 2. The shooting does not vary any more than two guns of the same metal are liable to. The difference is in the wear. 3. Can procure at this office. Postage eighteen cents.

D. P. S., Glens Falls.—We suspect your dog is suffering from a disorder vulgarly known as surfeit mange. Give him no meat. If he refuses to eat anything else don't urge him, but remove his food at once, letting him starve until he will consider it a delicacy, not allowing him to mince or nose his food. Feed nothing but dry bread or a little oat meal, and that very sparingly. Give him a dose of calomel, say 6 grs., with 8 grs. of powdered ginger, and 5 of compound extract of colocynth and 1/2 grain of podophyllin, followed by oil if it don't operate freely. Then give him half a grain of leptandrin and 8 grs. of bicarbonate of soda three times a day. Be particular as regards cleanliness, and add plenty of work and exercise. Light, almost starvation diet, is the principal thing for a few weeks, and feed but twice a day.

B. R. P., Assonet, Mass.—I have three very fine pointer pups five months old, and for the last five weeks they have been sick with the diarrhoea. I used Rochelle salts, then the prepared chalk. Two of them are O. K.; the other does not seem to gain. He eats well, but when anything passes him his bowel comes out about two inches and stays for hours. Will you be kind enough to tell me what to do for him? Ans. Give your puppies 1/4 grain leptandrin and 1/2 grain quinine three times a day. Also a teaspoonful of Boudal's wine of pepsin (Fougeras) morning and evening. Bland and nutritious diet is demanded, with particular attention to cleanliness. For the protracted bowel use suppositories of cocoa butter and iodoform 1/2 grain to each suppository.

THEO. O., New York City.—Would you be kind enough to prescribe for my bitch pup? She is nearly three months old. I have been feeding her on bread and milk and very little meat, and have been giving her epsom salts. The eyes are very dull, and seem to be covered with a white substance; her coat looks rough and unkempt, no gloss at all; her tongue and lips look whitish; her body is very thin, hardly more than two inches across near hindquarters, but further up, near the forelegs, her belly seems to be bloated and hard; breathing a little labored; appetite variable. The kennel is situated in my back yard. She seems at times to suffer very much. Ans. Your kennel is too close to the stable for health. Give the puppy 3 grains of calomel, 1/2 grain of leptandrin, 1/4 grain of aloin, 2 grains of compound extract of colocynth, and 5 grains of powdered ginger at a dose. If it does not operate fully and thoroughly, give a good dose of castor oil. When it has operated give santonine eight grains, quinine, two grains; leptandrin, two grains; aloin, one grain. Mix and divide with three powders. Give one three times a day every other day for three days (nine doses), on the alternate day giving a dose of castor oil in the morning (three doses in all). After this give Boudal's wine of pepsin (Fougeras'), 1/2 teaspoonful morning and evening.



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INDOLENT IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY:

PUBLISHED BY

*Forest and Stream Publishing Company.*

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.

[Post Office Box 2352.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

## Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* \* \* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, SEPTEMBER 6, 1877.

## To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS,  
Business Manager.S. H. TURRILL, Chicago,  
Western Manager.

## CALENDAR OF EVENTS FOR THE COMING WEEK.

*Friday, Sept. 7.*—Trotting: Minneapolis, Minn.; St. Petersburg, Pa.; Quincy, Ill.; Mystic Park, Boston; Amelia, Ill.; Winchester, Va.; Daventport, Iowa. Base ball: St. Louis vs. Rhode Island, at Providence; Osceola vs. Volunteer, at Poughkeepsie; Quickstep vs. Amity, at Manhattanville; Witoka vs. Press Nine, at Capitoline Ground; Defiance vs. McClung, at Philadelphia; Rochester vs. Allegheny, at Allegheny, Pa.; Rochester vs. Indianapolis, at Rochester. Boston Dog Show, at Music Hall.

*Saturday, Sept. 8.*—Trotting: Minneapolis, Minn. Running meeting at Newport, R. I. Base ball: Chicago vs. Boston, at Boston; St. Louis vs. Hartford, at Brooklyn; Louisville vs. Cincinnati, at Cincinnati; Monticello vs. Alpha, at Jersey City; Crystal vs. Winona, at Brooklyn; Lafayette vs. Atlanta, at Astoria, La. I.; Winona Clipper vs. Milwaukee, at Milwaukee; Athletic vs. Mutual of Norristown, at Philadelphia; Rochester vs. Allegheny, at Allegheny City. New York Athletic Club Games, at Mott Haven.

*Monday, Sept. 10.*—Trotting: Dubuque, Ia.; St. Joseph, Mo. Running meeting at Newport. Base ball: Rochester vs. Standard, at Wheeling, W. Va.; Browns vs. Louisville, at Terre Haute, Ind.; St. Louis vs. Resolute, at Elizabeth, N. J. Creedmoor: National Rifle Association.

*Tuesday, Sept. 11.*—Trotting: Edenburg, Pa.; Long Branch, N. J.; Fort Wayne, Ind.; Pottstown, Pa.; Beacon Park, Boston; Albany, N. Y. Base ball: St. Louis vs. Hartford, at Brooklyn; Winona Clipper vs. Milwaukee, at Milwaukee; Rochester vs. Standard, at Wheeling, W. Va.; Browns vs. Louisville, at Terre Haute, Ind. Creedmoor: National Rifle Association. Union Regatta of the South Boston Yacht Club.

*Wednesday, Sept. 12.*—Trotting as above; also at Toronto. Creedmoor: National Rifle Association.

*Thursday, Sept. 13.*—Trotting as above. Base ball: St. Louis vs. Boston, at Boston; Chicago vs. Brooklyn, at Brooklyn. Creedmoor: National Rifle Association.

—One of the Metropolitan journals evidently has an eye to business, as it advertises for exchange "An Iron Clad Incubator, Artificial Mother Poultry Dentist's Lathe" for a kind, sound, family horse. Here is a chance for the man with the "Patent Extensible, Reversible Kamptulon Hammock, Deck-Awning Carpet, with Watering pot attachment." We trust the opportunity to procure this lathe will not be allowed to escape by the dental profession.

—The St. Charles Hotel of Scranton, Pa., is the sportsmen's headquarters for northern Pennsylvania. Try it.

## STRAY NOTES FROM THE EDITOR.

REED CITY, Mich., Aug. 28, 1877.

SINCE my last communication to FOREST AND STREAM I have boated it through nearly all the interior lakes and water courses of Northern Michigan that are easily accessible by outside steamboat communication, or by the extraordinary interior facilities afforded by the Grand Rapids and Indiana Railroad, to which this section owes so much of its present development and prosperity. The writer here is more than surprised by the extent of the inland water communication. The country is filled with clear lakes, big and little, most of which are connected by natural channels, artificially improved. Through these little pleasure steamers constantly ply, affording the widest opportunity for visitors to enjoy the charming scenery, and fish in the limpid waters, which abound in black bass, trout, grayling, pike and muscalonge. I use the word "abound" in its broadest sense. I came here on purpose to investigate the sporting resources of this region, and can testify. Much of the wilderness is unbroken, and the fish and game are as tame and confiding as the tenants of Eden were before Adam bought his 10-bore breech-loader. Black bears pester the settlers. Deer cross the streams at their leisure, and stop to stare at us as we float by in our canoe. Pike jump at anything that glitters, right alongside of us; and the young mallards and wood ducks, which the law protects here until September, scarcely fly when disturbed.

Such vagabondizing as I am indulging in does not admit of frequent use of the mail service. Besides, one who is constantly on the move becomes demoralized for a correspondent. However, I have taken copious notes, and shall use them in due time. For the present what few scraps of information I can give out moments must necessarily be of a desultory character. Summarily speaking then, this is eminently a country for a sportsman, be he angler or gunner, be he hunting for profit or pleasure. Routes of access are numerous and made easy, and the hotel accommodations everywhere are the best I ever saw in a new country, and this is scarcely five years old. Five years ago there were but eleven houses on the lands granted to the Grand Rapids and Indiana Railroad comprised in a strip twenty miles wide by double that length. Now, possibly, there are 30,000 people. Villages are numerous all along the line, as I have already stated in another letter, and the soil and crops are such as to encourage new settlers to follow those who have gone before them. Fruit trees yield abundantly, and the forests are a lasting source of revenue and wealth. Brick takes precedence in construction, and what is done seems to be done with a view to durability and permanent establishment.

Just now grayling fishing is in its prime, and the more valued by anglers because the trout season closes on Sept. 1st. There seems to be a great abundance of grayling in the Manistee and Au Sable rivers, but excessive fishing is liable to deplete them as it has done other rivers in this section. To-day two gentlemen brought in a couple of hundred from the Manistee. The lot weighed about twenty pounds. Grayling do not run much above a quarter of a pound each, although they are sometimes taken weighing two pounds. We are to have a grayling supper to-night at the Morton House, whose table is reputed to be one of the finest in the United States. The other day no less than 2,000 (!) grayling were brought into the Bancroft House, an equally good, if not better, house, at East Saginaw, kept by Farnham Lyon, one of the proprietors of the Morton. They were caught in the Au Sable River, Aug. 22, by S. H. H. Clark, Gen'l. Supt., E. P. Vining, Freight Agent; S. A. Kent, H. C. Nutt and son, all of Chicago, and W. N. Brainard, of Evanston, and indicate the character of that stream sufficiently to encourage anglers to fish it. A few days ago I had the pleasure of capturing some fine grayling in the Jordan River, which were once multitudinous in that stream, but are now few and far between. There are a few also in the Hersey branch of the Manistee, and a good basket can be obtained from it right on the line of the railroad, at Reed City. In the Pigeon, Sturgeon, Deer and Maple rivers are an abundance of grayling. In fact nearly all the streams that run north from the dividing ridge or water-shed that traverses the northern part of the State contain trout or grayling—sometimes both, though not often, but the streams that flow to the south do not. The entire fluvial geography of this region has been most accurately delineated in Mr. J. H. Page's pamphlet, entitled "The Summer Resorts of Michigan," printed in the interest of the Grand Rapids and Indiana R. R., and to be obtained from the company. This railroad traverses the whole peninsula from north to south, while the Flint & Pere Marquette Railroad bisects it east and west, both roads intersecting each other at Reed City. Travel on these routes is made very comfortable, and trains run on fast time. The Woodruff sleeping coach of the Grand Rapids and Indiana road is the most comfortable and luxurious of all sleepers, as the beds are wider, the space above more ample, and the whole arrangement so contrived as to preclude any risk of one being shut off in his berth in case of accident and smothered or buried. Too much praise cannot be given to the pioneer landlords of this still un reclaimed and stump-dotted region. Their beds are generally good, and the food clean, fresh and well cooked. Here is a list of hotels which I can vouch for, and recommendation is given without fee or hope of reward. The Morton House and Sweet's, at Grand Rapids, (the first having a most enviable Western reputation); Cutler House, at Grand Haven; Bradley's Occidental

Hotel and the Cushman House, at Petoskey; Fountain City House at Charlevoix; Harsha House at Elk Rapids, kept by three young men (brothers), who deserve patronage and encouragement in continuance of well doing; the Lewis House, at Torch Lake, whose comforts are scattered all over the premises (cottages for families are attached to the premises); the Traverse City House, kept by the same proprietor, Frank Lewis; the Old Mission, Astor House, Lake View House, Island House at Mackinaw (the first and last named the most in request), the Bancroft at East Saginaw, and the Fraser House at Bay City. Many of these are very large and pretentious edifices, which make an Eastern man wonder to behold; others are surrounded by spacious grounds and pleasure attractions. Besides, there are Mrs. Webster's cottage on the Jordan, a solitary gem in the woods five miles up the river; Wrike's Jordan River House, situated at its mouth, and the new pine-floored, but uncarpeted, cabin of citizen Francois Contois, on Mullet Lake, and Smith's Lodge, on Indian River. Perhaps I shall take occasion to enumerate these in their order when I take the reader with me in company upon my round trip. This information is worth knowing. We suffered so much from niggardly or ignorant frontier landlords that it is a comfort to know that most of those in the Michigan wilds know how to keep a hotel.

Some of these will no doubt close for the season when the subsidiary inland little steamers are hauled off, as they will be soon; but the tourist or sportsman can go expeditiously almost anywhere with row-boats or sail-boats, and two of the very best months in the year still remain. Grayling, bass and pike may be caught until November 1, though trout are prohibited after September 1. Deer and bears are abundant all through the woods. As for ducks, the Indian River between Bush and Mullet Lake is in reality a water-course running through a swamp of wild rice, where mallards and teal congregate in vast numbers. If any sportsman has not yet traced out his map for the fall campaign, I know of no place which will more certainly yield him honorable spoils with so much comfort and so little expense. At Charlevoix are three good guides that we know (and possibly others nearly as good), who are available for the lake and river system that is included within an area of some forty miles around about. Their names are George and Mel Thompson and Ed. Aldrich. Services, with boat and provender, \$3.50 per day.

I find I have already spun a long yarn. It "grows upon what it feeds." Perhaps it is better not to give too much pork for a shilling.

I must not omit to mention that through all my travels I have been accompanied by A. B. Turner, Esq., the veteran editor of the Grand Rapids *Eagle*. His reputation as a trout fisherman is wide spread, and although the fish fear him, they love him. He can catch more fish with bait than any other man. Brother Turner was the only first-class fisherman left out when the twelve disciples were chosen. If he had been living at that time, the omission could not have been put down as an oversight. His luck would knock the spots clean off Peter's, who simply once caught a fish with a sixpence in its mouth, whereas Brother Turner often takes them with silver spoons in theirs. Such is his avidity for angling that he fishes to the very final close of the season, and yet so little content is he that he keeps a Fisher constantly on salary at his office, and induces this Fisher's wife to row him around in a skiff when fishing is out of the question, just to keep his hand in. He has a very fine rod, and he deserves it. HALLOCK.

## THE JOLLY CLUB.

IT is jolly, sensible and peculiar. We cannot learn that it claims to be either literary or artistic in its aims, yet we are confident that its membership renders the poet's thoughts better understood and the artist's conception more fully comprehended. Surely no one can be so stupid as to imagine that it is of a political character. Such societies do occasionally lapse into a certain very grim kind of humor, but who would ever think of calling them "jolly"? Least of all is the Jolly Club an association of hail fellows well met in an elegant club room to quaff nepenthe, and in the sweet reveries of the dream-compelling Havana sink into blissful oblivion of the outside world; for whatever may be our own private and reserved opinion, we should never have the temerity to incur the displeasure of our gentler readers by commending an institution whose benefits are exclusively enjoyed by the lords of creation. On the contrary, one of the strongest claims we can urge in favor of this club is that its benefits extend to all, man and woman, old and young.

The Jolly Club is a New England institution. The doughnut, the mince pie and Thanksgiving dinner are New England institutions. But the millions of doughnuts now annually consumed are confined to no State nor section; the mince pie is found wherever the flag floats, and the benign influences of Thanksgiving dinners are confined only by the parallels that bound the republic. It is with faith engendered by contemplating such triumphs of New England institutions that we hold up the Jolly Club as a bright and shining example to be known and imitated of all good people North, South, East and West throughout the land.

Utting out into Lake Champlain from the Vermont shore is a beautiful headland still covered with the primitive forest. Away to the North and East, its waves now laughing and rippling in the sunshine, now dashed to fury by the storm, stretches the expanse of water, dotted here and there by sail

and plunging steamer. Beyond are the woodlands, and away off in the East, looming up in the distance, are the Adirondacks, ever the same, yet ever changing in hue of gray and purple and blue. Clustered upon this woodland as if nestling for mutual protection in this great wilderness of oaks and pines, is a miniature village of rough and rustic, but comfortable cottages. Stumbling upon them in winter, you would find the doors barred and the snow crust unmarred by human footprint. But in mid-summer all is life, for this is the rendezvous of the Jolly Club. The cottages are occupied, hammocks swing invitingly from porch and tree; a fleet of yachts and boats is moored near the shore; the well worn croquet grounds are suggestive of hard fought battles, and the targets are well pierced by the bullet and the feathered arrow. But the attractions are without the camp. The leap of the bass in the lake and the flash of the trout in the stream offer abundant employment for rod and reel. The whirr of the woodcock invites the sportsman. There are heights to climb and dark ravines to be explored; new scenes to be discovered and familiar ones to be viewed at sunset and sunrise, sunlight and moonlight. Here a dashing rival in musical accents challenges to the discovery of its parent spring, bubbling up from beneath a mossy rock far up the mountain side. There is a tree, a glen, a mountain outline to be sketched, wild flowers to be gathered, questions of natural history to be investigated, and all the thousand and one subjects of study, sentiment and reflection which are known only to those who have communed with nature in her solitude, and as humble trustful neophytes been initiated into her mysteries.

So the summer passes, and with the falling leaves of autumn the cottage doors are once more barred, the little fleet disappears from the bay, the headland is left desolate and the Jolly Club disperse to their city homes, every man, woman and child of them, stronger in body and soul.

Long after, when the snows have descended upon the old point and the gales are howling through the leafless tree tops, in the distant city the flowers are taken from the press, and the sketch is filled in; while in and out with the pencil's play, run the memories of the golden summer days whose benediction is thus shed through the year.

And is not this better than the weary round of the fashionable "season?"

OFF FOR TEXAS.—On Monday the 27th August, Mr. J. H. Page, for so long a time, the masterly General Passenger Agent of the Grand Rapids and Indiana Railroad, bade adieu to many regretful friends at the depot in Grand Rapids, Michigan, and set out for Palestine, his future home in Texas. Henceforth he will fill a high and responsible official position on the International and Great Northern Railway of Texas. Those whom he has so valuably served at the north would scarcely have consented to the loss of his services had they permitted selfishness to enter into the consideration. The officials of the G. R. & I. R. R. are gratified to know that a wider field awaits his large capacities, and that his private endowments will be greatly increased. One special compliment was paid to him a fortnight ago at East Saginaw by the General Passenger and Ticket Agents' Association, of Michigan, of which H. C. Wentworth, Esq., of the Michigan Central Railroad, is President, when a splendid parting ovation was tendered to him by his admiring friends. Now that he has taken himself from among them, their grief is scarcely mollified by the fact that he has turned his steps toward that holy land of "Palestine" where the Lone Star gleams in its single and constant glory, and "thieves never break through and steal" if there is a squad of Rangers to stand guard.

Mr. Page is brother-in-law to H. O. Hughart, Esq., President of G. R. & I. R. Railroad.

A SPORTSMAN'S HOME.—The International Hotel at Niagara Falls fills the bill exactly. It is the only hotel at the Falls that possesses a passenger elevator, and also possesses large high rooms, properly ventilated, and the building is, moreover, fireproof. J. T. Fulton, a genial sportsman, a warm friend, and the prince of landlords, is the owner and proprietor.

NOTICE TO SPORTSMEN.—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting. P. O. Box 1, 294.—[Advt.]

AMERICAN TEAM REORGANIZATION.

Shall the American team be reorganized is just now the most talked of question among the long-range men. There is no doubt that there are shooters outside the chosen eight who possess abilities higher than many of those within the charmed circle. But the team men say that they are strong enough to win, and do not consider it fair that a man should be removed after he has borne the heat and dust of the battle of competitions through which his place was won. There is a little trades-union combination within the team to repel any application of the rule of the best man to the front. A glance at a few figures will enable us to point our meaning with fewer words. Since the team has been reorganized they have shot steadily, the reserve as well as the New Orleans men. Their score stood as follows:

Table with columns: TEAM, Aug. 21, Aug. 22, Aug. 23, Aug. 29, T 4 days, Av. Rows include Hyde, Allen, Weber, Jewell, Bruce, Blydenburg, A. H. Jackson, T. S. Dakin, Hepburn, Lamb, Jr., Selph, Arms.

NEW ORLEANS TEAM.

Table with columns: TEAM, Aug. 21, Aug. 22, Aug. 23, Aug. 29, T 4 days, Av. Rows include Selph, Arms.

This would seem to point to a team of eight, comprising Selph, Hyde, Allen, Weber, Hepburn, Lamb, Arms and Jewell, which would be a strong team. There might be wise reasons against such a wholesale change about, but that a change would strengthen is beyond a doubt. Hepburn and Selph are safe and reliable for better scores than two at least on the team, and a change to that extent could work no harm; whether such a change is necessary is best judged by a glance at what the British team are doing at Creedmore. During the past week they fired on three days, each day improving on the preceding, until on Saturday last their first eight men reached a total passing the best which the selected American team have shown in joint practice.

Table with columns: TEAM, Aug. 21, Aug. 22, Aug. 23, Sept. 1, T 3 days. Rows include J. K. Milner, Wm. Ferguson, A. P. Humphrey, F. T. Piggott, H. S. W. Evans, Lieut. Geo. Penton, Lieut.-Col. Penton, Wm. Rigby, Totals, Sir H. Halford, W. H. Gilder, R. S. Greenhill, D. M. Fraser.

The bold fact is that the probable shooting eight of the foreign squad have shown a total better than any of the American team have yet been able to show. If this does not point to reorganization we know of no stronger argument.

There is a committee of seven with President of the N. R. A., as its head, appointed on the International fall meeting, "with full power to make such arrangements in relation thereto as they shall consider necessary to make such matches a success," and even under the programme of selection for the team it is provided that "any person who may have been selected in accordance with the foregoing regulations may for cause be removed by a two-third vote of the members of the committee, team and reserve."

There seems to be no lack of authority for reorganization, but the matter rests after all with the team. If the team men choose to hang together and go down to a common defeat, they may also make up their common mind for a most uncommon volume of merited reprobation. Success, of course, covers a multitude of sins, and that alone will obliterate the foolhardiness of the present managers in not getting the best men wherever found.

To silence all doubt as to their ability to do all that could be expected of any team the Americans went to the firing point on Tuesday determined to put something noteworthy on record, and certainly the leading eight's total of 1654 points is little less than wonderful, not a single miss was recorded on the American scores, and but five outers in the 405 shots fired by the nine marksmen. The actually chosen team showed a total of 1641 points, and that too was ahead of anything we know of. To talk of reorganization after such a showing is almost like bettering perfection or of correcting infallibility. The men feel confident against any combination of national or imperial teams, and if they but pull together, regardless of who may lead or foot the list, we can also share their confidence as to results.

GAME PROTECTION.

Philadelphia, Aug. 24, 1877.—On August 2 Robert Marshall, of Chester, Delancey County, Pa., was arrested at the instance of the Philadelphia Sportsman's Club, charged with capturing nine young partridges on the road near Rhodes' mill, early in last month, and had a hearing before Mayor Forwood. The principal witness for the prosecution was a colored woman, named Esther Brown, who testified that as she was on her way home from Bridgewater, she saw two young men, one of whom she identified as the defendant, who told her that they had in their possession nine young partridges, which they had caught, and that they intended to take the birds home to rear them. They asked her for something to put them in, and she gave them a tomato can for that purpose. She also stated that she had seen two of the birds in their possession. The Mayor imposed a fine of ten dollars and cost, which Marshall paid and was discharged.

On Sunday, the 19th, two other poachers of this city came to grief, being arrested at the instance of the same club for a violation of the game laws in shooting rail on Danby Creek out of season. The parties were taken before the Mayor, and had in their possession four rail and one blackbird. They were fined \$5 for each bird, and also \$5 each for a violation of the Sabbath. John Goff paid the fine, they leaving their guns in his possession as security.

We hope in a few days to be able to report several other cases for shooting rail out of season. The club have detectives employed to watch various marshes where shooting out of season is likely to occur. They have detected three or four more persons shooting out of season, and in a few days warrants will be issued for their arrest.

It is impossible to thoroughly police so vast an extent of

marsh as there is on the Delaware River, but a great deal has been done this season in connection with the West Jersey Game Protective Society. It is said that daily infractions of the law occur at Marcus Hook. As many as forty rail were boated in a single tide during the present week. There is also an ample field for the exercise of the vigilance of the Game Protective Association of West Jersey, on the flats, on Chester Island, and all along the Jersey shore, where game can be found any day, but particularly on Sunday. B. W. R.

OMAHA, July 28.—Below is the printed circular of Gen'l R. R. Livingston, President of the State Sportsmen's Association of Nebraska, respecting the game laws of the State. The law referred to was enacted last winter, and prohibits the killing of all kinds of birds except water fowls, jack snipes, sand pipers, waders and woodcocks at all times. By this you will see that Nebraska is not at this writing "the sportsmen's paradise." The legislature will again meet in one year from next January, at which time there is little doubt this unwise, not to say obnoxious, law will be repealed:

PLATTSBURGH, Neb., July, 1877.

To all Members of Sportsmen's Clubs in Nebraska: GENTLEMEN—Understanding that an opinion seems prevalent among many members of Shooting Clubs, affiliated with the State Sportsmen's Association, that the present "Game Laws" are inoperative by reason of no repealing clause being attached, I beg leave very respectfully to call your attention to the fact that the last law enacted is binding on all good citizens until repealed or set aside by the decision of a court of competent jurisdiction.

As the members of the State Association only ask for a fair law that shall effectively protect game, it would be inconsistent with such desire to violate the existing law, because it is oppressive at present. I earnestly ask all gentlemen connected with clubs which have memberships in the State Association to abide by the law as it now stands, and to prosecute all violators of said law throughout the State; thus setting a commendable example of good citizenship, and carrying out the ideas of the legislators who framed the present Game Laws. This course will more certainly insure a proper law than setting the present one at defiance.

Sincerely trusting that all true sportsmen in this State will coincide with me in these views, I suggest that each local club immediately pass a standing resolution, which shall provide for the sure and swift prosecution and punishment of any member thereof, who violates the existing Game Law; and that a conviction before a proper tribunal shall operate as an expulsion of said member from the club to which he belonged.

Very respectfully, ROBT' R. LIVINGSTON, Pres't Neb. State Sportsmen's Ass'n.

VIVISECTION.—Mr. Huxley, in his address before the Domestic Congress in England, made a new and forcible plea on behalf of vivisection. He said he felt it to be his duty to express regret at a condition of law which permits a boy to troll for pike, or set lines with live frog bait for idle amusement, and, at the same time, lays the traiber of that boy open to the penalty of fine and imprisonment if he uses the same animal for the purpose of exhibiting one of the most beautiful and instructive of physiological spectacles—the circulation in the web of the foot.

Correct Professor! But the principle is much the same; one furnishes food for the body, the other for the mind.

NEW GAME CLUB.—Newark, N. J., has a game protection club, composed exclusively of Germans, which was organized July 17, 1877, under the name of Newarker Jagd Schutz Verein. Meetings are held every Thursday night at E. Goepferich Hall. Charles Eles, President; F. Lindenlaub, Vice-Pres.; John Tamvalt, Secretary; E. Goepferich, Treas.

"Lectures and Essays" is the title of a ghastly piece of rubbish, claimed to have been written by an M. D., it being written in the interest of a Patent Food Company.

The Rifle.

THE INTERNATIONAL TEAMS.

The rival long-range teams are working with vigor and energy in drill and preparation for the great International match on Tuesday, the 28th inst. The Englishmen took their first day's work on the range, and did very fairly indeed, the scores standing as follows. A. P. Humphrey retired with a broken mainspring in his rifle:

Table with columns: TEAM, J. K. Milner, Sergeant W. Ferguson, F. T. Piggott, R. K. Greenhill, Sir Henry Halford, W. H. Gilder, H. S. W. Evans, Lieut.-Col. Penton, Wm. Rigby, Arthur Fraser, Lieut. Geo. Penton, E. Grant Peterkin. Rows include scores for various teams and individuals.

Beside them the American team and reserve were busy rolling up scores as follows:

Table of scores for various teams and individuals, including Gen. T. S. Dakin, L. Weber, C. E. Blydenburgh, L. L. Hepburn, I. L. Allen, Major H. S. Jewell, T. Lamb, Jr., W. H. Jackson, Frank Hyde, and L. C. Bruce.

The New Orleans team were pegging away, Selph again leading with one of his brilliant scores.

Table of scores for teams and individuals including Dudley Selph, Col. John Glynn, Jr., J. K. Renard, E. T. Manning, J. K. Milner, W. H. Gilder, A. R. Humphry, Lieut.-Col. Fenton, Wm. Rigby, R. K. Greenhill, Lieut. Geo. Fenton, F. T. Piggett, Sir Henry Halford, and R. G. Errich.

On Wednesday, the 29th, the several teams were again out and busy, the Englishmen improving vastly on their scores of the day before.

Table of scores for teams and individuals including J. K. Milner, W. H. Gilder, A. R. Humphry, Lieut.-Col. Fenton, Wm. Rigby, R. K. Greenhill, Lieut. Geo. Fenton, F. T. Piggett, Sir Henry Halford, and R. G. Errich.

The American Team managed bravely to hold their own, their scores standing:

Table of scores for teams and individuals including Gen. T. S. Dakin, T. Lamb, Jr., Major H. S. Jewell, I. L. Allen, L. L. Hepburn, C. E. Blydenburgh, L. C. Bruce, W. J. Jackson, Frank Hyde, L. Weber, and Major W. Arms.

The New Orleans experts did not fall away, Selph again leading.

Table of scores for teams and individuals including Dudley Selph, R. G. Errich, L. C. Bruce, E. T. Manning, J. K. Milner, Lieut.-Col. Fenton, and J. K. Milner.

Table of scores for teams and individuals including Wm. Ferguson, Wm. Rigby, A. P. Humphry, Sir Henry Halford, F. T. Piggett, Sergt. W. H. Gilder, H. S. W. Evans, R. S. Greenhill, Lieut. Geo. Fenton, A. M. Fraser, Wm. Arms, Col. John Glynn, Jr., Dudley Selph, R. G. Errich, and Wm. Arms.

The New Orleans riflemen also did some very fair work, as follows:

Table of scores for teams and individuals including Wm. Arms, Col. John Glynn, Jr., Dudley Selph, R. G. Errich, and Wm. Arms.

A SCOTCH WRANGLE.—The Scotch small-bore experts seem to have given up the rifle for the pen, and in place of throwing bullets are pegging away with bullets.

WYVIS LODGE, EVANTON, ROSS-SHIRE, SCOTLAND, AUG. 16, 1877. Sir—I enclose a copy of a letter I have to-day written to Mr. Renton, Secretary of the National Rifle Club of Scotland, of which club I am the patron.

WYVIS LODGE, EVANTON, ROSS-SHIRE, AUG. 16, 1877. To R. RENTON, Esq., Hon. Sec. of the NAT. RIFLE CLUB OF SCOTLAND.

Dear Sir—My attention has been directed to a letter which you have recently addressed to the Secretary of the National Rifle Association of America, and which has been published in the Scotch papers.

On the 21st, R. Renton, the Secretary of the Scottish National Club, published the following in the Glasgow papers:

No. 67 WEST REGENT STREET, GLASGOW, AUGUST 20, 1877. DEAR SIR—I am in receipt of your letter, the copy of which was sent by you to the Secretary of the American Rifle Association, but previous to receiving it I read it in the Glasgow Herald.

In the protest the council did not desire by entering into details to lend additional weight thereto, but contented themselves by simply stating it and their reason for doing so, and had you been an active member perhaps you would not have written the letters before me.

any note or pretence, and I cannot, therefore, conceive why you should presume to say to America, that that protest does not express the opinion of the Scottish rifle shots, while your desiro that they should assume in its place your simple ipse dixit to the contrary is quite absurd.

The protest is explicit and hears that unless the rights of Scotland to compete hereafter are to be thereby prejudiced, the council have no objections whatever to a British team competing, but, on the contrary, would be glad to learn of their success.

WALNUT HILL RANGE.—The fifth competition for Sharps long range rifle took place at Walnut Hill range on the 28th inst. Messrs. Rabbeth, Lowell, Kirkwood and Souther had each led once at the previous contests for this prize.

Table of scores for Walnut Hill Range competition, listing names like N W Arnold, S E Ring, L W Farrar, E B Souther, H T Lockwell, and J B Osborn.

The fourth competition for the Sharps mid-range rifle also resulted in the success of Mr. Arnold, who scored 60 out of possible 75.

Table of scores for mid-range rifle competition, listing names like N W Arnold, J B Osborn, H T Lockwell, and L W Farrar.

On Saturday last the first special competition for places on the Inter-State team of the Massachusetts Rifle Association took place at Walnut Hill.

Table of scores for Inter-State team competition, listing names like James Wemyss, Jr., William Gerrish, A. P. Clark, and Slem Wilder.

On Saturday last the long-range men of the Mass. Rifle Association were again out in competition for places on the State team at the Inter-State match in the Creedmoor fall meeting.

Table of scores for long-range competition, listing names like James Wemyss, Jr., W. W. Ward, Charles C. Hubbard, and A. Hubbard.

The Utica Citizens' Corps held their annual rifle match at Alexandria Bay, Aug. 22d.

Table of scores for Utica Citizens' Corps match, listing names like Private J. Forbie Miller, Roman C. Cole, and Sergeant Egbert Bagge, Jr.

Baltimore, September 1.—The fourth monthly contest came off this afternoon at the Patapsco rifle range.

calibre rifle, which was won by Mr. F. H. Hack, who scored an aggregate of 83 out of a possible 105.

Worcester, Mass.—The Rifle Team of the Worcester Sportsmen's Club did some very creditable work at the Greenwood Range, Sept. 1, in shooting at 800 yards, for places on the team which is to compete with the team from the Lawrence Club. The most remarkable score was by Mr. C. B. Holden, who made 23 consecutive bulls' eyes. Maj. L. G. White also had a splendid run of 20 consecutive bulls' eyes. The detailed result was as follows:

Table with 2 columns: Name and Score. Includes L. G. White (143), A. G. Mann (136), C. B. Holden (142), S. Clark (132), A. L. Rice (139), F. Wesson (132), G. J. Rugg (136), A. Houghton (109).

Sir Henry Halford and eight of the British riflemen were guests of Judge Gildersleeve and the West Side Gun Club, in Elm Park, Aug. 31st. They tried their skill at shooting glass balls from Bogardus traps, eighteen yards rise, and about forty yards from the firing point. Then Milner and Sir Henry shot a match against Judge Gildersleeve and E. Schweyer, the President of the West Side Gun Club. Out of 10 balls Milner broke 8, Sir Henry Halford 7, Judge Gildersleeve 6 and Schweyer 4. In another match of 6 balls, Judge Gildersleeve broke 6, Milner 2, Sir Henry 2, Frazer 1, Col. Bodine 5 and Schweyer 3.

Twenty-six members of the Gun Club shot for a gold badge which was in the possession of the President, Mr. Schweyer. He had won it twice, but was required to win it again as a condition to permanent possession. This time Luigi Brizzolari won it, making 16 shots out of a possible 20. Schweyer made 15 shots.

THE AMATEUR-CANADIAN MATCH. AMERICA VICTORIOUS.

[SPECIAL DISPATCH TO THE FOREST AND STREAM.]

CANADA—Toronto, Sept. 3d.—The trip to this city of the team representing the Amateur Rifle Club of New York, has been entirely successful so far as the visitors were concerned, but for the hosts it was rather a surprise to find themselves for the third time at the foot of the list; we have about come to the conclusion that there is no such word as fail known to the American rifle shooters.

The Amateur Rifle Club men arrived here Friday evening after a safe trip, two of the members only feeling a slight indisposition after their long journey by rail. The men with their baggage, rifles, ammunition, etc., were received at the Rossin Hotel, where most comfortable quarters had been assigned them. Saturday they paid their first visit to the ranges of the Ontario Rifle Association, about three miles from their hotel, on the Garrison Common. Sweeping about the range on three sides lie the waters of the lake, and a liberal amount of breeze is always sure to greet the riflemen at his practice here. The American gentlemen discovered that as the matches were in progress their only chance of getting a pop over the ground was to join and take part in the matches. This they did, and found that in shooting from the mounds used as firing points, to carry the bullets clear of the fences a radical difference in elevations from those governing at Creedmoor was necessary; not only were the elevations higher, but a greater distance on the vernier was required between 800 and 900 and between 900 and 1,000 yards than was customary at Creedmoor. The men, however, soon grasped these variations, and among the long-range winners were Keene, Farrow, Hepburn, Geiger and Rathbone, of the American party. It had been thought best, with a view of strengthening the chances for an American victory, to limit the match to six men on either side. This privilege of choice between six and eight contestants was given the commander of the visiting team, and Lieutenant-Colonel E. H. Sanford, the President of the Amateur Club and the captain of the team, had decided on six and named as the American team; W. M. Farrow, L. Geiger, W. Gunn, R. Rathbone, H. Fulton and L. L. Hepburn. R. H. Keene, J. P. Waters and Colonel Sanford looked after the interests of the team generally.

The Canadian members of the Victoria Rifle Club, of Hamilton, have been practising with great care in anticipation of the match, and the purchase of American breech-loaders was with the idea of placing themselves more on an equality with the visitor, over whom they expected to achieve an easy victory, as the best of the long-range members of the Amateur Club were already pre-engaged in practice for the International match with the British team at Creedmoor.

This morning the match opened at 10:30 o'clock with a fair day, but with an ugly wind blowing from the northwest from the 12 to 3 o'clock quarters, requiring an allowance of from seven to ten points for a right wind, as a consequence the average score made is not at all an extraordinary one, the best on the field by L. L. Hepburn, only reaching 199 in the possible 225. The Amateurs led from the first distance, reaching a lead of nine points at the close of the 800 yards score; at the 900 yards finish the score stood two in favor of the Americans, but the great falling off at 1,000 yards left the Amateur Club men far ahead. Their system, a careful system of mutual coaching, had saved the day to them, despite Rathbone's illness, while the Canadians notwithstanding the fact that three of the members used American rifles, were beaten, as much by their independent style of work as by any other cause. At the finish Major Gibson and Capt. J. J. Mason, of the Canadian team made short speeches to the crowd informing them of the defeat of their men, and in response Col. E. H. Sanford thanked his hosts on behalf of himself and team for the pleasant time they had enjoyed. With cheers the match then concluded. The scores stood as follows:

THE AMATEUR CLUB TEAM. Table with 4 columns: Name, 800 yds., 900 yds., 1000 yds., Total. Includes L. L. Hepburn (67), L. Philton (67), W. M. Farrow (66), etc.

"A COOL CAVALRY TROOP."—The Syracuse Journal talks as follows, without first informing it that a fine bronze trophy was the trophy for the Yates men when they capture the first cavalry prize at Creedmoor:

We fear it is nearly settled that the Yates Dragons will not go to Creedmoor this year. Year after year they have won "water coolers," hoping that eventually the stock would be closed out, and something else offered. It is expensive for the Dragons to enter the contest, and would cost them something to build more storage room for water coolers were they to continue the capturing of them.

MASSACHUSETTS—Springfield.—Several of the Springfield Army employees enjoyed a shoot the other day. Three strings of ten shots each were fired at 825 yards, the size of targets and mode of marking being the same as at Creedmoor, L. L., with a possible 150 for the whole. Two of the guns were the Springfield rifle, precisely the arm issued to the army, and the very gun which a Boston paper recently said "nobody could hit a barn door with at a distance of 300 yards;" the others were the "officers' model," which differ only in having a little shorter barrel and the peep-hole sight permitted at Creedmoor for long-range shooting. The regular army ammunition was also used; and, considering that two of the men had never before fired at long range, the results were very good, as will be seen:

Table with 3 columns: Name, Score, and another column. Includes F. R. Ball (31), L. C. Bruce (39), C. O. Wood (29).

CONNECTICUT—Willowbrook.—At the regular semi-monthly shoot of the Connecticut Rifle Association at Willowbrook range, Berlin, on the 1st inst., the champion long-range and mid-range badges were won by N. Washburn, of Hartford; the leading scores standing:

LONG-RANGE MATCH. Table with 2 columns: Name and Score. Includes N. Washburn (5-5-5-5-5-5-47), George T. Judd (5-5-5-5-5-5-44), etc.

MID-RANGE—500 YARDS. Table with 2 columns: Name and Score. Includes N. Washburn (5-5-5-5-5-5-49), George T. Judd (5-5-5-5-5-5-46), etc.

For the "all comers" badge, at 500 yards, for any rifles of 40 calibre or under, S. H. Hubbard, of Hartford, won with a fine score.

"ALL-COMERS"—500 YARDS. Table with 2 columns: Name and Score. Includes S. A. Hubbard (5-5-5-5-5-5-47), J. L. Woodbridge (5-5-5-5-5-5-46).

THE IRISH-AMERICAN RIFLE CLUB.—The New York Irish-American Riflemen have "gone and done it" for the Connecticut Irish-American riflemen, taking a trip up to Greenwich on the 29th ult. The New Yorkers were well received, escorted to the range, where, at the one target in use, the two teams peppered away neither of them particularly satisfied with their own record, but the visitors carrying off the honors and the silver mug. The New York men were somewhat bothered in the fact that the shooting point was higher than the target, and the down-hill aiming was somewhat of an inconvenient novelty. The shooting was at 200 yards, any rifle. The scores in full, standing:

IRISH-AMERICAN CLUB, N. Y. CITY. Table with 2 columns: Name and Score. Includes J. J. Clark (4-4-4-4-4-4-38), N. D. Ward (3-3-3-3-3-3-37), etc.

IRISH-AMERICAN CLUB, GREENWICH. Table with 2 columns: Name and Score. Includes J. Boies (4-4-4-4-4-4-42), S. June (3-3-3-3-3-3-36), etc.

Gen. F. F. Millen was Captain of the New York team, Lieut. Kneeland being his adjutant.

It is intended to have a return match at Creedmoor within a few days, when the Down-Easters will receive another lesson in how to do it.

On Saturday last, the Irish-American Rifle Club of New York held its regular weekly competition for the Millen trophy, the scores standing:

Table with 2 columns: Name and Score. Includes Sergeant Burns (20), Major Duffy (23), Lieut. Kneeland (25), M. M. Maibey (26).

NEW YORK—Rochester.—The 7th Division, N. G. S. N. Y. annual prize meeting on the Rochester ranges was well carried through by Col. C. P. Bromley, ex-officer, and in some of the matches good shooting was shown. The meeting extended over the 27th and 28th ult., and among the competitors were the matches for the Lansing Medal, open to all members of the seventh division, N. G. Distance, 200 yards; rounds, seven.

Prize—Gold badge, to be competed for at each regular meeting, and held by the winner one year. Value \$25. Donated by Brigadier-general J. H. Lansing.

James Ratt, 27; Lieutenant J. F. Boyd, 62; Col. F. A. Schoffel, 26; Dr. Buckley, 26; Adj. A. H. Bruman, 26; Sergeant Mandeville, 23; Colonel Bromley, 22; G. B. Parkhurst, 21; Jacob Rapp, 21; Colonel S. S. Eddy, 21; Lieut. Peter Hess, 20; Capt. B. F. Ridley, 31.

The Bruiker medal match.—Distance, 200 yards; position, standing; any rifle within the rule of the National rifle association; seven shots, with two sighting shots additional. The medal to become the property of the person who wins it three times, and to be shot for on the first Friday of each month.

Dr. Rider, 31; R. B. Yates, 80; Dr. G. Buckley, 29; Col. F. A. Schoffel, 27; E. Angewine, 27; Colonel S. S. Eddy, 29; Captain E. S. Phelps, 21; Colonel Bromley, 20; General W. H. Briggs, 16; G. Bradley, 17. Capt. Moore of the 54th Regiment, took a revolver, value \$35, presented by E. Remington and Sons, in a match open to all commissioned officers of the seventh division N. G. Distance, 200 yards; rounds, five; position, standing. General Bruiker, 16; Captain Henslinger, 15; Lieut.-Col. Eddy, 16; Colonel Beget, 7; Lieutenant Boyd, 16; Colonel Campbell, 14; Lieutenant Swartz, 15; Major Weitzel, 5; Captain Ridley, 6; Lieutenant Myer, 17; Captain Wagner, 17; Captain Browne, 9; Captain Heilbron, 13; Colonel Bromley, 13; Lieut. Straudennaier, 12; Captain C. C. Meyer, 16; Capt. Moore, 20; Lieutenant Hess, 15; Lieutenant Elkhat, 20; Adjutant Bruman, 14; Lieutenant Stallman, 13; Major Fleckenstein, 8.

Railway, N. J.—First competition for badge presented by the Railway Rifle and Sporting Club, took place on this day at Rahway, N. J., on Sept. 3d. The badge was won by Mr. B. A. Vail, President of the Club, on a score of 43. The next competition will take place upon this same range, on the 27th of September, commencing at 2 p. m., open to all comers; two sighting, and ten scoring shots. Entrance fee, 50 cents.

RIFLE PRACTICE.—When Messrs. Dennison & Co. got up their popular targets for rifle practice, they "hit the nail on the head," as they have succeeded in rendering them perfectly accurate in every particular, and amateur sportsmen owe them a debt of gratitude for giving them something so entirely reliable, and at so low a price. When they offer to send by mail a specimen one-hundred-yard target, together with circular containing "Major Henry Fulton's Rules for Private Practice," for the small sum of ten cents, it shows they are quite willing to have these goods thoroughly tested before they are purchased. Their advertisement, in another column, should be read for more particulars.—[Advt.]

ORANGE JUDD'S EXPERIMENTS.—In a note to the chairman of the executive committee of the Connecticut Rifle Association, Mr. Orange Judd says: "As the shells, after repeated firing, become too much expanded to enter the barrel easily, many have expressed a wish to have some contrivance to shrink them. I procured a steel tube for this purpose and drove the shells into it with a wooden mallet, removing the shell with a wooden pin inserted in the opposite end. It appeared to work well and I had no difficulty in inserting the loaded shells in the gun. But now for the result. You doubtless noticed the unaccountable misses in my shooting on Saturday, 'goose eggs' following right after bulls' eyes, three of them at the 900 yard range alone, and other shots dropping to the bottom of the target. On coming home and cleaning the shell I found the truth. Two-thirds of all those doctored or contracted shells burst in firing just where they had been most contracted. My son George used a few similarly prepared shells which also dropped the bullets. So, according to this experience, it will not do to reduce the diameter of the shells at the base after they have once expanded."

The members of the British and Connecticut City rifle teams have been elected honorary members of the Manhattan Club.

Game Bag and Gun.

GAME IN SEASON FOR SEPTEMBER.

Table with 2 columns: Game Name and Description. Includes Moose, Alces maculosus, Black-belted plover, etc.

"Bay birds" generally, including various species of plover, sand-piper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets, etc., coming under the group Limcolinae or Shore Birds.

The frequent alteration of game laws makes such confusion that sportsmen are kept quite in the dark as to when shooting on various kinds of game is permitted. We therefore append the following table for reference:

Table with 4 columns: States, Pinnated Grouse, Ruffed Grouse, Quail, Woodcock. Includes Ill., Iowa, Minn., Wis., Kans., etc.

Correspondents and subscribers will oblige us and serve the cause by sending four-line reports of the shooting in their respective localities.

MASSACHUSETTS—Salem, Sept. 3d.—The past week has been giving us some fair shooting at Eagle Hill, Ipswich Neck, Essex, Plum Island, and vicinity. Peeps were thick last Saturday as well as gunners at Eagle Hill. Among the birds shot have been jack curlew, dough dove, a good many uplands, winters, grass birds, etc., also black-breasts and snipe, with some beeble-heads. Saw a large flock of foul flying high over Ipswich last Saturday. I think they were brant. I think some birds may be picked up most any day at Eagle Hill now and for the next month or so.

NEW JERSEY—Basking Ridge Sept. 1.—A hunting party has been organized for sport in Pike Co., Pa.

PENNSYLVANIA—Uniontown, Aug. 30.—The most exciting fox chase of the season came off in the neighborhood of old Centre Furnace, in the mountains, last Tuesday week. "Wish" Miller, the irrepressible sportsman, accompanied by his son, Grant, and Dr. W. B. Fuller, with Wish's celebrated trained kennel of noble mastiffs, started early for the place, and by nine o'clock had surprised a gray fox, which gave chase for three hours before being captured. A second one was soon unkenneled, and this one, as "Wish" deftly characterized it, was undoubtedly the swiftest and most cunning fellow this side of the mountains. It made an excellent chase several hours, but finally took refuge up a tree. After some delay however, they succeeded in starting it again, and for a time

it led Ringwood and Slide at a lively rate, but gradually lost ground and slid under the rocks where it was left in apparent security, and one of the most exciting chases of the season was declared off.

FLORIDA—St. Augustine, Aug. 31.—Dr. Folsom, Dr. Phillips, and others, will soon leave for the south, where they go to hunt, fish, etc. They will carry good dogs, and everything possible to thoroughly equip a hunting party. They are crack sportsmen, therefore there is no doubt of their success.

Dayton.—Since the ordinance was passed by the town council, "prohibiting shooting along the shores and in the town," the cranes and other water birds are becoming more numerous and very tame, in some cases walking into yards without fear.

Indian River.—Quail, and game birds of all kinds, will be numerous the coming winter, from the large numbers now seen. Deer, bear, turkey, squirrels, etc., promise fine sport. Northern sportsmen should bring good guns.

ARKANSAS.—Prairie chickens are scarce this year.

MISSOURI—Kansas City, Aug. 31.—A hunting party, consisting of Gen. Treadway, Col. Cheever, Maj. Burke and Capt. Louis, who left here a few days ago, have just returned from Southern Kansas, where they report excellent sport.

INDIANA—Indianapolis.—The members of the Gun Club are to have another tournament in the fall, at which rabbits are to be employed instead of pigeons. The quadruped is to be bumped out of his trap, and started off at a good pace before shooting is allowed.

WISCONSIN—Westboro Section, Aug. 27.—West of here is the best deer country in the State, and no one in the region who hunts them. Ruffed grouse are abundant here, and a few wild pigeons are seen. Four bears have been killed in this neighborhood this summer. The Wisconsin R. R. Section man here saw one a few nights since, and Duncan & Taylor's night watchman drove one away from the mill a few nights later. A. S. Russell of this place is a good woodman and would take parties out if desired. S. D. C.

[This excellent game region is reached by Wisconsin Central R. R., and is almost unknown to sportsmen.—Ed.]

Pomeroy, Iowa, Aug. 24.—The opening day of the game season dawned cool and cloudless, making just the day for the initiation of dog and man into the pleasures of grouse hunting, though if I am to judge from sundry suspicious appearances some of the law-abiding citizens (?) did not wait for the time prescribed by law, solacing their wounded consciences—if anything of that sort finds a place in their vile anatomies—by saying they were killing a peculiar kind of "short billed snipe."

Birds are abundant, of fine size, and in good order. Bags of thirty to fifty are often reported for one gun. Ducks are beginning to make their presence known, visiting the fields in the morning and evening, and will soon afford fine sport. Young geese are commencing to sail around the fields. From their early appearance it is predicted that they will be unusually plentiful this season. The first English snipe of the season were found on the evening of the 21st inst.—three fine pump fellows. They will be numerous as soon as the fall rains commence. Deer are reported plenty eight to ten miles out, and are easily taken with shot gun of heavy calibre loaded with buckshot. ABE DACOSTA.

OREGON—Eugene City, Aug. 20.—Mountain and ruffed grouse, quail and pigeons are abundant now. Our wing shots make bags of from half a dozen to two dozen in half a day or less. I shot, last evening, five mountain grouse, four ruffed grouse, five quail and a brace of young mallards. The ruffed grouse were killed in crab-apple thickets, the rest in stubble fields. Acorns are abundant this year, so we are certain of excellent mallard and wood duck shooting this fall. J. G. S.

MONTREAL, Sept. 1st.—Mr. N. P. Leach killed a fine bag of game to-day at the Back River, within ten miles of the city. It comprised woodcock, ruffed grouse, black duck, snipe and quail bird.

FIRST SNIFE.—The first snipe exhibited this season was brought to this office on Monday last. It was killed by Mr. Justus von Lengerke, on the Haekensack Meadows, September 1st, over his lemon and white setter Dash. It was a plump, well conditioned bird, evidently the harbinger of fall long-bills.

CHAMPION GLASS BALL TRAP.—Messrs. Barton & Co., of 337 Broadway, have placed in the market a new glass ball trap, which claims to be the *ne plus ultra*. It combines compactness with durability, and is arranged, by a swivel on the bed-plate, to throw a ball in any direction or at any elevation unknown to the shooter, a screen preventing his seeing the direction in which the trap is set.—[See adv.]

PIGEON MATCHES.

Squaw, Sep. 1.—Match between New York and Philadelphia shooters. The conditions were H and T traps, 10 birds, 27 yards rise, 80 yards boundary; 1 1/4 ounce shot and Long Island Club rules. Summary:

Table with columns for NEW YORK and PHILADELPHIA, listing names and scores for various pigeon matches.

NEW YORK TIES.

Table listing names and scores for New York ties.

FINAL TIES.

Table listing names and scores for final ties.

TEXAS.—Waco, Aug. 24.—To-day the Waco Gun Club shot the first match for a fine gold headed cane, presented to the club by Schmidt & Sorg, jewelry dealers, of Waco. The conditions: 10 pair of glass balls, Bogardus traps, 18 yards rise; the cane to be shot for six consecutive Fridays, the member winning it the most times to become the owner.

Table listing names and scores for Texas matches.

W. T. Lane winning.

PENNSYLVANIA—Petroleum Centre.—Pigeon shoot, August 24. First match, \$2 entrance, 5 single balls, 18 yards, Bogardus' rules:

Table listing names and scores for Pennsylvania pigeon shoot.

Morgan and Wilcox divided first, Clark and Layman second, J. S. Ryan third.

Second match, \$5 entrance, 5 single birds, 21 yards rise.

Table listing names and scores for second match.

Wilcox first prize, Graham second, Ryan third.

Third match, \$3 entrance, 5 single balls, 18 yards rise.

Table listing names and scores for third match.

Ryan and Clarke divided first, Wilcox won second, Layman third.

Fourth match, \$10 entrance, 10 single birds, 21 yards rise.

Table listing names and scores for fourth match.

The tie was won by Davis; Wilcox and Morgan divided second, Ryan third, Thompson fourth.

Fifth match, \$3 entrance, 5 single balls.

Table listing names and scores for fifth match.

Wilcox and Morgan divided first, Lewis and Derby second; Layman and Graham, after shooting off, divided third.

Sixth match, \$5 entrance, 5 single birds.

Table listing names and scores for sixth match.

Morgan and Scott divided first, Wilcox and Layman second, Derby won third.

To persons seeking healthful recreation and enjoyment, without being subjected to the usual annoyances of "fashionable" sea-side resorts, the Franklin House, Plymouth, Mass., affords unusual opportunities, having unusual facilities for harbor, river or surf bathing, while splendid opportunities for boating in either smooth or rough water may be enjoyed at choice. Cooling breezes, comfortable rooms, a well supplied table, and a reasonable scale of prices are all to be found here.

Yachting and Boating.

HIGH WATER FOR THE WEEK.

Table showing high water times for Boston, New York, and Charleston.

METROPOLITAN AMATEUR ROWING ASSOCIATION.—This Association held its second meeting at the Fifth Avenue Hotel last Thursday evening. It was decided to hold the first regatta on the Bergen Point one half mile course. The day appointed is October 17.

MASSACHUSETTS—Boston, Aug. 29.—The city regatta appointed for July 4 and postponed because of the unfavorable weather, was successfully sailed to-day under very favorable circumstances. The races: For sloops and schooners measuring 35 feet and upward on the water line, first prize for each class, \$75; second, for each class, \$40. For centre-board and keel sloops, and for schooners measuring 25 feet and less than 35 feet, prizes as follows: For centre-board sloops, first prize, \$60; second, \$30. For keel sloops, first, \$60; second, \$30. For schooners, first, \$60; second, \$30. Third race.—For centre-board and keel boats measuring 20 feet and less than 25 feet, prizes of \$50, \$30 and \$20 for each of the two classes. Fourth race.—For keel boats measuring 15 feet and less than 20 feet, prize of \$15. The first prize in the class last specified was awarded on the 4th of July. The courses were: For first class, 20 miles; for second class, 14 miles; for third class, 8 miles; for fourth class, 3 1/2 miles. Summary:

FIRST CLASS SCHOONERS.

Table listing names, owners, lengths, and corrected times for first class schooners.

FIRST CLASS SLOOPS.

Table listing names, owners, lengths, and corrected times for first class sloops.

SECOND CLASS CENTRE-BOARD SLOOPS.

Table listing names, owners, lengths, and corrected times for second class centre-board sloops.

SECOND CLASS KEEL SLOOPS.

Table listing names, owners, lengths, and corrected times for second class keel sloops.

SECOND CLASS SCHOONERS.

Table listing names, owners, lengths, and corrected times for second class schooners.

Table listing names and scores for Third Class Centre-Boards.

THIRD CLASS KEELS.

Table listing names and scores for third class keels.

FOURTH CLASS KEELS.

Table listing names and scores for fourth class keels.

DORCHESTER YACHT CLUB.—The third regatta of this club was sailed Sept. 1 off City Point. Following is a summary:

FIRST CLASS CENTRE-BOARD SLOOPS.

Table listing names, owners, lengths, actual times, and corrected times for first class centre-board sloops.

SECOND CLASS SCHOONERS.

Table listing names, owners, lengths, and corrected times for second class schooners.

SECOND CLASS CENTRE-BOARD SLOOPS.

Table listing names, owners, lengths, and corrected times for second class centre-board sloops.

SECOND CLASS KEELS.

Table listing names, owners, lengths, and corrected times for second class keels.

THIRD CLASS CAT-RIGGED.

Table listing names, owners, lengths, and corrected times for third class cat-rigged.

Boston, Aug. 30.—In the Lakeman and West End Boat Club regatta at Silver Lake, Aug. 29, the running match of 100 yards was won by D. Dwyer in twelve seconds; the swimming match was won by J. Regan. In the four-oared working boat race of three miles for prizes of \$80, \$30 and \$20, the Levrett crew crossed the line in 19m. 31s., the Lynn in 19m. 41s., and the City Point in 19m. 26s. The referee, however, decided that the line was not crossed in the right place, and the race was accordingly pulled over again this afternoon on the Charles River. The South Boston crew won in 21m. 57s. The single-scutt shell race of three miles was rowed yesterday by Lynch in 20m. 58s.; Hosmer, 21m. 4s.; Kelly, 21m. 38s.; Ross, 21m. 41s., and others. A squall prevented the rowing of the single-scutt working boat race, which came off this afternoon. Distance, one mile and return. Prize of \$50 won by S. Gookin in 15m. 50s.; second prize of \$25 won by C. Steele; third prize of \$15 won by G. Crosby.

Lowell, Aug. 30.—A two-mile vesper boat race to-night was won by Fred Fickney in sixteen minutes and twenty-two seconds. Lee was second and Cushing third.

Norfolk, Aug. 29.—Annual whale boat race, three miles with a turn. Two rafts from New Bedford, one from Edgarton and one from Oak Bluffs. The Oak Bluffs won first prize, \$70, in 24m. 50s.; New Bedford, sixth ward, second prize, \$50, in 27m. 55s.; sixth ward, junior, third prize, \$10, in 30m. 10s.

Newport, R. I.—Handicap race for silver prize presented by Com. Louis L. Lorrillard, of New York. The course was about twelve miles:

Table listing names, start times, finish times, and actual times for Newport race.

THE NEWBURG REGATTA.—The first annual regatta of the Newburg Rowing Association took place on the Hudson River, Aug. 30 and 31, and Sept. 1. The programme was very interesting and, notwithstanding the somewhat unfavorable condition of the course, the events were generally successful. The following is the summary of the races:

Single-scutt race for boys under twenty years of age: working boats; distance, three miles. First prize, F. B. Ten Eyck, of Peekskill; time, 20m. 38s. Al Darrah, of Newburg, second. Single-scutt shell race; same distance; open to all amateurs. Entries—Thomas F. Paron, Vesper Rowing Club, Youkers; Frank W. Tompkins, Wovenhook Club, Granbury, N. Y.; E. Mills, Jr., Athletic Club, N. Y. City; George W. Lee, Triton Club, Newark, N. J.; Frank Pidgeon, Jr., Saugerties Club, Saugerties, N. Y. Won by Lee in 23m 15s; Paron second, three lengths behind.

Single-scutt shell race for professionals: same distance. Entries—John McKel, Peekskill, N. J.; George Faulkner, Boston, Mass.; John Biglin, New York City; Michael Burns, Buffalo, N. Y.; George H. Hooper, Boston, Mass.; F. A. Johnston, Boston, Mass.; James A. Ten Eyck, Peekskill, N. Y. The competitors crossed the line in the following order: Faulkner, 24m; Ten Eyck, 23m 43s; Hooper, 24m; McKel, 24m 30s; Johnston, 24m 45s; Burns, not timed.

The last race of the first day was a free to all race in double-scutt working boats, not over 19ft long or under 250 lbs. weight. The entries were—Al Darrah and A. McQuinn, of Newburg; J. A. Ten Eyck and T. E. Ten Eyck, of Peekskill; Dan Ward and Ellis Ward, of Cornwall; and John Biglin and J. Hickey, of New York City. Won by Darrah and McQuinn in 23m 45s. Owing to the rough water Friday but one race and that for double-scutt working boats for boys under twenty years of age. The winners were Darrah and McQuinn, of Newburg; time, 33m 11s. The other contestants were: Ten Eyck and Scribner, of Peekskill; Bates and Demann, of Newburg; Smiley and Downing, of Brooklyn; Mosher and Bolton, of Fishkill; Devan and Redfield, of New York, and Parent and Hubbard, of Cornwall.

The events Saturday were: Amateur four-oared shells; three miles. Won by the Wovenhook in 20m 58s. The Eureka, the only coasting crew, came in 22s later. Single-scutt race for working boats; open to all. Won by J. A. Ten Eyck, of Peekskill; Al Darrah second. Pair-oared shell race; same distance. Of the three crews, two were composed of members of the Ward family. One of the Ward crews took first prize in 22m 30s; the other Ward crew coming in second.

NEW JERSEY—Aug. 30.—At the Fairhaven regatta the prizes were awarded as follows: To the Edward Minturn \$40; to the Josephine, \$30; to the Ada Taylor, silver cup; to the Florence, \$20; to the Amelia a suit of colors.

FLORIDA.—The Indian River Yacht Club held their regatta at Titusville yesterday.

National Pastimes.

New Jersey—Providence Caledonian Society.—The seventh annual excursion of the Providence Caledonian Society to Rocky Point last Friday, Aug. 31, was participated in by the sister societies of New York and New England. The sports and festivities were highly successful, opening with a Scotch reel, and concluding with a collation in the evening at Caledonian Hall. Following is a summary of the contests:

Putting the Stone.—The competitors: Jno. Sample, Wm. Robertson of New York; E. W. Johnson of Hamilton, Ont., D. C. Ross of Hamilton, Ont., and John King. The stone weighed sixteen pounds, and was thrown by the victor, Wm. Robertson, to the distance of 35 feet 4 1/2 inches. A tie between Johnson and Ross was thrown off, Ross taking the second and Johnson the third prize; distance, 35 ft. 6 in., and 35 ft. 2 in., respectively.

Running Long Leap.—Among eight competitors, A. C. Reid, of Hamilton, Ont., took first prize; distance, 20 ft 1 in.; John Sheffield, of Fall River, Mass., second; distance, 19 ft 10 in.; John McCaffrey, of Pawtucket, 19 ft 1 in.

Throwing the Hammer.—Five competitors: D. C. Ross, of Hamilton, Ont., took first prize, throwing the eighteen pound hammer 87 ft 1 in.; Wm. Robertson, of New York, 81 ft.; J. T. Crossley, of Frankfort, Pa., 79 ft 1 in.

Half-Mile Race.—Six contestants. Won by Robt. Hindell, of Paisley, Scotland, 2m 5s; John Maloney, of Fall River, second; John Bridgewater, third.

Hurdle Race.—There were seven competitors. B. Hindell won the first prize; John Maloney, second; A. C. Ried, third.

Highland Fling.—Entries: Donald McBean, J. Kennedy, Thomas T. Murray, William Robertson, George Bothwick. The dancing was to the music of the bagpipe. Kennedy won first; Robertson second; Murray third.

Sack Race.—There were five entries. The distance was once around the ring over five hurdles, eighteen inches high. John Crossley took first prize, William Robertson, second, and R. B. Robertson, of Fall River, third.

Hitch and Kick.—This was a long contest, and resulted in A. M. Donaldson, of Fall River, kicking 8 ft and 9 in, and taking first prize. Second and third prizes divided between Robert Easdon and A. C. Ried.

Hop, Step and Jump.—Ten entries. The first prize taken by John Sheffield, 44 ft 7 in.; second, by Michael Lynskey, 44 ft 6 in.; the third to John Maloney, 43 ft 2 in.

Boys' Race.—Won by Walter Dobson, Dennis Cronan and Robt. McAburty, all of Providence.

Vaulting with Pole.—Five entries. Won by Wm. Robertson, 10 ft.; Robert Easdon, 9 ft 10 in.; and Michael Lynskey, 9 ft 1 in.

Three-Legged Race.—Sixteen entries. Robertson and Reid, first; Haskins and Southernland, second. Third prize divided between Lynskey and Reed and Crossley and Maloney.

One-Mile Walk.—The first prize was taken by Wm. Brown; second, by L. C. Dole, third by Frank Schwenk.

Standing High Leap.—E. W. Johnson took first money, John McCaffrey second, and A. C. Ried and Michael Lynskey divided third.

Tossing the Caber.—D. C. Ross took first prize, E. W. Johnson second and James O'Rourke third.

Running High Leap.—E. W. Johnson first prize, A. C. Ried second and Wm. Robinson third.

One Mile Walking Race.—This was the most interesting race of the day. Among the entries were Lester C. Dole, of New Haven, Robert Hindell, the champion of the world, and John Sample, of South Bridgeport, Mass. Dole led the first five rounds, and on the sixth round Hindell and Dole were abreast. At this point Sample passed both, and the excitement became intense. Hindell, who had been going at a lazy gait, gave a farewell glance at Dole and passed Sample. While coming around on the ninth round, Hindell spurred, leaving Sample a few yards in the rear, and the Scotchman came in an easy winner, Sample second and Dole third. The mile was made in the remarkable time of six minutes and forty seconds.

New York—Harlem Athletic Club, Mott Haven, Sept. 1.—The second annual meeting of this club was marked by general excellence in the several events. The contests were as follows: One hundred yards race.—The first race was won by F. Saporitis, in 11 1/2 s.; W. Holden, second. Second race won by W. B. Curtis, in 11 s.; H. Louterbach, second. Third race, a dead heat between F. Henshaw and E. B. Foote, in 11 1/4 s.

One Mile Run.—Eight entries. Won by R. Morgan in 4m. 46s.; J. C. Vaught, second.

One-mile Walk.—Seven entries, won by E. C. Holske, in 7m. 26s.; W. Barnes, second. Throwing the Hammer.—G. D. Parnley won, by throwing 82 ft.

Four hundred and forty yards run.—W. H. Griffin won in 69s.; W. Childs, second. T. Roberts won second heat, in 64s.; J. Horn won third heat; and J. H. Ferguson the fourth.

Pole Vaulting.—L. Freeman won by a vault of 8 ft. 10 in.

Two hundred and twenty yards run.—The first second and third heats were won respectively by Saporitis, Anderson and Childs.

Four-miles Walk.—Among nine contestants E. C. Holske won in 32m. 02s.; T. H. Armstrong, ten seconds later.

Four hundred and forty yards run.—Three entries; won by Roberts in 57s.

Broad Running Jump.—Won by W. T. Livingston, who made 18 ft. 7 in.

Hitch and Kick.—Won by A. H. Oakes, who kicked a tambourine, suspended at a height of 8 ft. 3 in. T. Nichols was next; he accomplished the feat at 7 ft. 9 in.

In the half-mile run Mr. F. Banham in 2m. 5s.; Richard Morgan second. The concluding event was a handicap club race, which Dibbet won in 11s.; White second, Kenshaw third.

LACROSSE.—A lacrosse match for the championship of the world, was played at Toronto, Ontario, September 1, between the Shamrocks, of Montreal, and the Athletics, of Toronto. The game was played according to the English rules, the club having the most games at the end of two hours to be declared winner. The match was won by the Shamrocks, 2 to 1.

MONTREAL, Aug. 25.—The Caledonian Society held their annual athletic sports to-day on the Montreal Lacrosse grounds, with the following result:

Quoits.—W. Ogilvie, 1st prize; D. Rothwell, 2d; D. Christie, 3d.

Throwing heavy hammer.—J. Mundie, 76 ft. 9 in., 1st prize; Luke McKay, 72 ft. 10 in., 2nd; A. Rennie, 71 ft. 8 in., 3rd.

Throwing light hammer.—Luke McKee, 89 ft. 7 in., 1st prize; A. Rennie, 87 ft. 1 in., 2d; J. Mundie, 85 ft. 7 in., 3d.

Throwing light stone, 14 lbs.—A. C. Rosseau, 39 ft. 7 1/2 in., 1st prize; Wm. Ryan, 38 ft., 2d; Wm. Judge, 34 ft. 7 in., 3d.

Running hop, step and jump.—James Newton, 41 ft., 1st prize; A. C. Rosseau, 40 ft., 2d.

Highland fling in Highland costume.—R. J. McDonald, 1st prize; Alex. Niven, 2d.

Vaulting with pole.—Rosseau, 9 ft. 9 in., 1st prize; John Anderson and Thos. McMann (equal), 9 ft. 8 in., 2d and 3d.

MARRIED VS. SINGLE MEMBERS OF THE ST. GEORGE AND STATEN ISLAND CLUBS.—The first of a proposed series of matches was played on the Hoboken grounds last Saturday. The Score resulted as follows:

Table with columns: First Inning, Second Inning, Married, Single. Lists names and scores for various players.

Table with columns: First Inning, Second Inning, Married, Single. Lists names and scores for various players.

ST. GEORGE'S VS. STATEN ISLAND.—Camp Washington, S. I., Aug. 30.—The first game of the season between the Staten Islands and the second eleven of the St. George Club of this city, resulted in the following score:

Table with columns: First Inning, Second Inning. Lists names and scores for various players.

Table with columns: First Inning, Second Inning. Lists names and scores for various players.

SWIMMING ACROSS THE ENGLISH CHANNEL.—The Channel has again been successfully crossed, this time by Cavill, who accomplished this feat in about twelve hours.

AMUSEMENTS.

"The Danites" hold forth at the New Broadway Theatre.

The Grand Opera House opened Monday night with F. S. Chamfrau in "Kit."

"The Dark City," Mr. Daly's new local play, was produced at the Fifth Avenue Theatre Tuesday night, with new scenery, etc.

"The Wild Flower of Mexico" is the title of a spectacular and effective drama which holds the boards at Niblo's.

"Pink Dominoes" will be played only until the 17th at the Union Square Theatre, when the Williamson's open in their new drama of "Struck Oil."

"Oxygen," which will be continued at Wallack's Theatre this week, has for the basis of its story Jules Verne's amusing story of the waking up of a very Rip Van Winkish Dutch town by an immense dose of oxygen, administered by Dr. Ox. Plenty of dancing and song, of course.

"The Crushed Tragedian" is the title of the new play which holds the boards at the Park Theatre, with Mr. Sothern in the leading role. Mr. Sothern is a popular actor, and as a new play with an old favorite is always a strong combination, the season opened Monday night with a large and brilliant audience. Even standing room was not to be had. The play was heartily applauded throughout, and the curtain being raised at the end of each act, and at the conclusion Mr. Sothern was called upon for a speech, a compliment he graciously acknowledged in a few words of thanks.

Tiffany & Co., Silversmiths, Jewelers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and the other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. TIFFANY & CO. are also the agents in America for MESSRS. PATEK, PHILIPPE & Co., of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones, General Jewelry, Bronzes and Artistic Pottery is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York

Publications.

NOW READY, THE

Sportsman's Gazetteer AND GENERAL GUIDE.

WITH MAPS AND ILLUSTRATIONS, 900 pp., Price, \$3.

BY CHARLES HALLOCK,

EDITOR OF "FOREST AND STREAM," AUTHOR OF THE "FISHING TOURIST," "CAMP LIFE IN FLORIDA," ETC.

NEW YORK:

"FOREST AND STREAM" PUBLISHING COMPANY.

The book is a complete manual for sportsmen: It gives every sportsmanlike method for capturing every known game animal, bird and fish in North America.

It designates the proper charges for guns for each kind of game, the various kinds of decoys and blinds, and baits and tackle for the fish.

It gives over 4,000 localities where game and fish may be found, specifies the game found in each locality, the best accommodations, and the best route to get there. (The preparation of this Directory was in itself a work of great magnitude.)

It gives the scientific name and specific characteristics of each species it describes, with the habitat and breeding season of each—a most valuable contribution to science.

It describes 297 varieties of edible fish alone, that may be taken with the hook; 80 varieties of ducks, 59 varieties of snipe or waders, and the different methods of shooting each.

Its instructions for capturing large game are very minute, and the chapters on woodcraft, outfitting and camping have been pronounced by "El Cazador," of Los Angeles, California, to be simply complete.

Every kind of dog used for sport is designated, and his points for bench judgments fully given. The chapters relating to selection, breeding, rearing, breaking, care and diseases, comprise a seventh part of the volume. There are 71 prescriptions and recipes given under the revision of the best modern canine therapeutists.

It is in itself the most concise, accurate, instructive, sensible and comprehensive work ever written upon the dog and his diseases. Any physician can administer the prescriptions with perfect confidence in their safety and efficacy.

It contains very useful recipes and remedies for wounds, bites, poisons, illnesses, and emergencies of all kinds; for cleaning, repairing, and preserving every implement used for sport; for selection and use of every kind of boat employed by sportsmen; a reference list of several hundred books in request by sportsmen, and a directory where to buy outfitting goods.

It instructs in taxidermy, and tells how to preserve and mount specimens of animals, birds and fish.

LONG-RANGE

RIFLE SHOOTING.

A Complete History of the International Long-Range Matches, 1873-1877—Complete Elcho Shield Scores—Rules and Regulations of the N. R. A. Etc., Etc.

FULLY ILLUSTRATED

BY THE RIFLE EDITOR OF THE "FOREST AND STREAM AND ROD AND GUN."

NEW YORK,

Published by the Forest and Stream Pub. Co. 1877.

ANY GENTLEMAN who has not received a circular containing this cut, should write for one with new price list.

Hunting Suit, A.....\$5 00 Hunting Suit, B..... 7 00

ALL GOODS FIRST-CLASS.

GEO. C. HENNING, Washington City, Aug 23 4t



Price, \$45. Ribbanding and repairing breech-loading shot-guns done promptly and in the very best manner. Send for price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Ang 30 4f

NEW YORK SHOOTING SUIT.

A first-class Coat. No shooting outfit complete without it. Pleasant to wear, durable, and in the end the cheapest.

MADE OF BROWN VELVETEEN.

Pockets and lining made to take out, so that it may be worn for early fall or winter shooting. (Horace Smith, Esq., says it is just his idea of a shooting coat.) For sale by

H. C. SQUIRES, 1 Cortlandt St., N. Y.

Or F. L. SHELDON, Rahway, N. J.

Rules for measurement and samples sent upon application. Prices ranging from \$15 to \$30. A250 tf

ESTABLISHED IN 1837.

Consult your interest by sending for our revised and reduced prices.

Excelsior Scroll Saw, Buffalo Pony Planer, Small Steam Engines, and other machinery. Includes illustrations of various mechanical devices and their uses.

LYMAN'S PATENT BOW-FACING ROWING GEAR.



This invention enables an Oarsman to see where he is going. He sits with his face to the bow. Every rower knows how awkward it is when pulling single, or as bow-man in a crew, to have to turn and watch the course.

Advertisement for William Lyman's Patent Bow-Facing Rowing Gear, featuring a large illustration of a revolver and text detailing the product's benefits and agent information.

These guns have been winners in every trial during the last three years, competing with all the first-class makers in England.

New Advertisements.

Second Annual Bench Show AT ST. LOUIS, MISSOURI.

OF SPORTING AND SHEPHERD DOGS. Held under the auspices of the St. Louis Fair Association, commencing Tuesday, October 29, and closing Friday, October 31st.



THE NEW AMERICAN Breech-Loading Shot Gun

For close hard shooting excels all others. Price \$17. Send for circular. Hyde, Shattuck & Co., Mrs. Hatfield, Mass.

SPORTSMEN ATTENTION. BREACH AND MUZZLE-LOADING Shot Guns.

By the following makers: W. C. Scott & Sons, W. Greener, E. & G. Hockett, Wobley & Sons, W. Moore & Co., Forsyth, & Co., etc.

REMOVAL. HODGKINS & HAIGH, FIRE ARMS AND SPORTING GOODS.

In general, having removed to NO. 238 BROADWAY, respectfully solicit a continuance of the patronage heretofore extended.

For Sale.

FOR SALE—One Dozen Birch Bark Canoes. These boats are in perfect order, from 15 to 20 feet long, cost from \$20 to \$25 according to size.

A VERY DESIRABLE ESTATE, either for market gardening or general sporting purposes, at the South, will be leased to responsible parties for a long or short term of years.

FOR SALE—Forty wooden decoy ducks, price \$12.00. C. E. VANDERVEER, Hyde Park, Dutch Co., N. Y.

FOR SALE—One Ten Irish setter stud, 3 years old, broken and in disposition. Price \$25; cheap.

WANTED—A central fire breech-loading double gun, 10 gauge, 30 or 32 inches long, weighing 10 to 12 pounds; must be of well known English maker.

WANTED—One mid-range or sporting breech-loading rifle, Sharps preferred. Address with particulars, CAMP LOUNGE CO., Troy, N. Y.

The Kennel.

FOR SALE—Two of the best bred and best broken field trial setters in the world. Of the celebrated Laverack, Llewellyn and Slater strains.

The Kennel.

EMPIRE STATE KENNEL, BROOKLYN, L. I. BELLE-KEIFUS. We are now looking for blood-red Irish setter puppies, whelped Aug. 15, 1877.

Fleas! Fleas! Worms! Worms! STEADMAN'S FLEA POWDER FOR DOGS.

A Bane to Fleas—A Boon to Dogs. This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned.

ARECA NUT FOR WORMS IN DOGS.

A CERTAIN REMEDY. Put up in boxes containing a dozen powders, with full directions for use.

W. HOLBERTON, 102 NASSAU STREET.

EDINA KENNEL.

JESSE SHERWOOD, PROPRIETOR, Edina, Knox County, Mo., breeder and importer of Sporting Dogs.

IRISH SETTER PUPS, six weeks old, full blooded, out of Countess, sire of Rodman's Dash, sire of pup York, prize winner at Corshew and this country.

TRAIN your own dogs in the most artistic manner. Send for circular to M. VON CULM, Delaware City, Del.

FOR SALE—A fine lot of Scotch, Skye, Dandy, B. Dinnont, and Black-and-tan Terriers, Sporting Dogs, Maltese Cats, Ferrets, &c.

FOR SALE, when eight weeks old, six puppies out of my blue bell setter Mel, by Bob Boy.

FOR SALE—Trained young setters, imported stock. For particulars address FRANKLIN SUMNER, Milton, Mass.

FOR SALE—Fox hounds, No. 1 stock; very fast and strong-scented; some one year old and some pups. L. M. WOODEN, Rochester, N. Y.

FOR SALE—One red Irish setter stud, 3 years old, broken and in disposition. Price \$25; cheap.

WANTED—A central fire breech-loading double gun, 10 gauge, 30 or 32 inches long, weighing 10 to 12 pounds; must be of well known English maker.

WANTED—One mid-range or sporting breech-loading rifle, Sharps preferred. Address with particulars, CAMP LOUNGE CO., Troy, N. Y.

WANTED—One Ten Irish setter stud, 3 years old, broken and in disposition. Price \$25; cheap.

WANTED—A central fire breech-loading double gun, 10 gauge, 30 or 32 inches long, weighing 10 to 12 pounds; must be of well known English maker.

WANTED—One mid-range or sporting breech-loading rifle, Sharps preferred. Address with particulars, CAMP LOUNGE CO., Troy, N. Y.

FOR SALE—Five pups, liver and white, three dogs and two bitches, out of Flirt, by Biddler Dash; price \$15 each. Address W. A. GALLOWAY, New Dorp, Richmond county, N. Y.

FOR SALE—My pure bred pointer dog Ned, liver and white marked, two years old, well broken, a splendid retriever, large and sound. Price \$30. Address GEO. V. HANNA, Lima, Livingston Co., N. Y.

FOR SALE—Red Irish setter puppies by Plunkett out of Hon. John E. Devlin's imported red Irish setter bitch Moya, who took first prize as brood bitch in her strain at N. Y. Bench show in May.

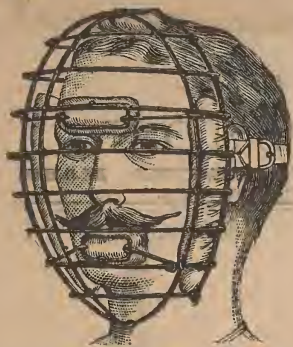
FOR YOUNG COCKER SPANIEL SPOCK FROM the choicest breeders, acquire of M. P. MCKOON, Franklin, Del. Co., N. Y.





Sportsmen's Goods.

PECK & SNYDER'S



Base-Ball Catcher's Mask,

Now used by all the prominent catchers when playing behind the bat.

We send samples, C. O. D., for \$3. Enclose stamp from the Athletes Journal, giving our latest prices of all goods in the sporting line.

Address PECK & SNYDER, Manufacturers, Aug 3m 124 Nassau street, N. Y.

COMPLETE OUTFITS

FOR

Camping, Shooting & Fishing

Fine fishing and shooting tackle, camp stoves, leather, rubber and canvas goods and suits for sportsmen. Tents, portable boats, moccasins, etc.

AGENTS FOR THE FOX GUNS.

The best and strongest American guns yet made. Sole agent for the celebrated McBride files, Holberton's fly rods, black bass and trout flies, and full length fly hooks; Purdy's glass ball traps and bull's-eye balls, etc. Send ten cents for illustrated catalogue, with rules for glass ball shooting, and hints on camping, shooting and fly-fishing for trout and black bass.

W. HOLBERTON,

P. O. Box 5, 109, 102 Nassau street, N. Y. Aug 23 ff.

GOOD'S OIL TANNED MOCCASINS.

The best thing ever worn by sportsmen. Not injured by wetting and drying—always soft and easy to the feet. 4 different styles. Prices to suit the times. Send for illustrated circular and price list. (Successor to Frank Good.) MARTIN S. HUTCHINGS, P. O. Box 368, Dover, N. H.

W. HOLBERTON, 102 Nassau St., N. Y., Agent.

H. WALDSTEIN OPTICIAN,

545 Broadway, New York,

Has received the highest award at the Centennial Exposition for his fine Glasses, especially Opera and Field Glasses. His display at 545 Broadway of fine

TELESCOPES; FIELD, MARINE and OPERA GLASSES, MICROSCOPES, SPECTACLES and EYE GLASSES, ARTIFICIAL HUMAN EYES, Etc., is really wonderful. Illustrated catalogue mailed on receipt of postage of four cents.

ESTABLISHED 1840.

Gale's Patent Tents,



Adapted to all purposes where Lawn, Beach, Hunters and Camp Tents are used; are eight feet high, seven feet square at bottom, will lodge four persons; can be set up or taken down and packed in five minutes, making a bundle four feet long, of twenty-five pounds weight. The pole in two parts, is joined together by a brass tube. They are wonderfully light, and yet very strong, and are the handiest and cheapest tents extant. Samples of goods and price list sent free, and the tent sent on receipt of price, or C. O. D. Prices from \$10 to \$15.

GALE & CO., Boston, Mass.

Painting.

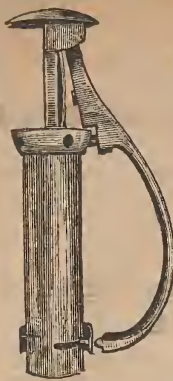
PAINTING.

EVERY ONE THEIR OWN PAINTER.

50 Per Cent. Saved.

We are manufacturing a very fine Pure Ready-mixed Paint, mixed in such a manner that any ordinary stable or farm hand can make as good a job painting as a painter can with paint mixed in the old way. This is because our paint does not set quick, and thus show marks of the brush. We sell it lower than materials can be bought in the ordinary way, and pay freight in certain sized orders. Any gentleman wishing to paint up his buildings at small expense had better write, and have sent free our book.

Address 260 Front street, INGERSOLL PAINT WORKS.



STODDARD'S CARTRIDGE LOADING IMPLEMENT,

COMBINING SEVEN DIFFERENT TOOLS, Cap Expeller, Recapper, Loader and Tube, Creaser, Cutter Crimper and Shell Extractor.

NO. 10 NOW READY.

Performing all the operations possible in the manipulation of Paper or Metal Shells for Breech-Loaders.

Length, 4 1/2 inches. Nickel Plated. Weight 10 ounces.

All the operations are perfect, and suitable for any shell. AWARDED BOTH MEDAL AND DIPLOMA AT CENTENNIAL EXHIBITION.

PRICE, \$6.

Circulars sent on application. Send postal order or check to

C. J. STODDARD & CO.,

Lock-Box 192, Washington, D. C. LIBERAL DISCOUNT TO THE TRADE.

Cotton Duck, every width & weight, cut to any length,

Oiled do, manufactured by steam power.

Saturated, not enameled,

Slings for disabled Horses, thoroughly harnessed, \$10 each.

Lock Pouches, Messenger Bags,

Nose Bags at wholesale,

anything and

everything that

can be made

of canvas.

Arrangement of Tent Catalogue.

No. 1. Artist's & Camping.

2. Military.

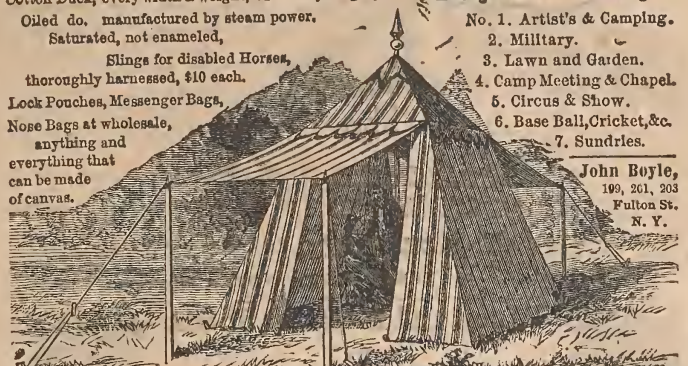
3. Lawn and Garden.

4. Camp Meeting & Chapel.

5. Circus & Show.

6. Base Ball, Cricket, &c.

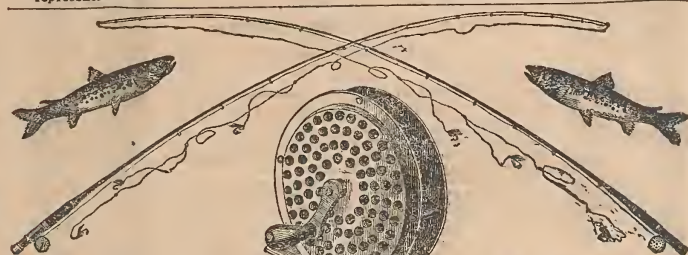
7. Sundries.



Palmetto Tents, 10 feet square, \$20 each. 7 1/2 " " 7 "

Boyle's U. S. Tent and Mail Bag Manuf'y, 7 FULTON ST., NEW YORK.

John Boyle, 109, 201, 203 Fulton St. N. Y.



Chas. F. ORVIS,

MANUFACTURER OF

FINE FISHING TACKLE,

MANCHESTER, VERMONT.

VERY STRONG AND DURABLE ARTIFICIAL FLIES.

Fully Equal to any Made.

For Trout, \$1.50 per dozen. Triple Hook Flies, \$2.50 per dozen. For Bass, \$2.50 to \$4.50 per dozen. Any variety to order per sample.

Refer to Dr. J. R. ROHNEY, Keeseville, N. Y.; Com. L. A. Beardsee, Little Falls, N. Y.

SEND FOR DESCRIPTIVE CATALOGUE. MENTION "FOREST AND STREAM."

THE UNITED STATES CARTRIDGE COMPANY, LOWELL, MASS.

Manufacturers of the

CENTRAL FIRE, SOLID HEAD,

BRASS SHELL, RE-LOADING CARTRIDGE,

Used by the Army and Navy of the United States and several Foreign Governments.

All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.

VANITY FAIR FOR MEERSCHAUM AND CIGARETTES.

DOES NOT BITE THE TONGUE.

Our Cigarettes are as fine as can be produced. Only the best French Cigarette paper is used, which is free from mineral and other injurious substances.

TRY L'AMERIQUE,

THE BEST CIGARETTES, AND JUST THE THING FOR

SUMMER SMOKING.

Mixture of Perique and Vanity Fair. Best French Cigarette Paper only used. Sample by mail, Fifteen cents. Ask your dealer for them.

WM. S. KIMBALL & CO., Rochester, New York.

Folding Pocket Mosquito Bar.

A most ingenious device for campers, tourists and travelers. Can be used at home or abroad, and will last a lifetime. It weighs less than a pound, and no trouble to carry. Can be put up or taken down in half a minute. No camping outfit complete without it. Every one warranted. All complete, with net, \$1.50. Sent on receipt of price. Address

A. A. COWING, Watkins, N. Y.



HAMMOCKS

FOR LAWNS AND EXCURSIONS

Tents, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seesaws, etc. Send for Illustrated Circular.

G. WEBSTER PECK, Manufacturers' Agents, 110 Chambers st., N. Y.

Sportsmen's Goods.

J. F. MARSTERS, Manufacturer of Superior



ARCHERY.

Ladies' Lance wood bows, beautifully finished, plush-handle, horn-tipped, dark color; 4-foot, \$2.50; 4 1/2-foot, \$3.00; 5-foot, \$3.50. Gents, same as above, 5-foot, \$3.50; 5 1/2-foot, \$4.00; 6-foot, \$4.50. Ladies' Arrows, plain wood, three feathers, 24-inch, \$1.50 per doz.; 25-inch, \$1.75 per doz. Gents' arrows, plain wood, three feathers, 25-inch, \$1.75; 28-inch, \$2 per doz. Superior polished and painted, \$2, \$3, \$4, \$5, \$6 per doz. Ladies' gloves with round tips, \$1.25; gents', \$1.50 each. Ladies' arm-guards, with elastic, \$1.25; gents', \$1.50 each. Quivers for holding arrows, with belt, \$2 each. Straw targets, handsomely painted, see above cut, 18-inch, \$2; 21-inch, \$2.50; 24-inch, \$3.75; 30-inch, \$4.50; 36-inch, \$5. Ebony and rosewood box with quivers, \$25, \$30, \$35, each. Tassels, 50c, and 75c each; bow strings each, 40c; best, 50c. Iron target stands, \$4 each. Archery Book of Rules by mail, 25c. Also on hand and for sale all the necessary woods and trimmings for amateurs to make their own bows. All the above goods are manufactured by me and are warranted. Goods sent C. O. D. to all parts of the country.

J. F. MARSTERS,

125 Nassau St., New York, and 55 Court St., Brooklyn.

aug 9 ff

Seydel & Co's Pocket Hammock.

No. 1, weight only 1 1/2 lbs.; bears 1,800 lbs.; price \$4.

A most luxurious Couch, Seat, Swing, Etc.



Circulars may be had by addressing MCCOY & CO., 184 and 186 Duane Street, N. Y.

EVERY DESCRIPTION OF Sporting Goods.

GUNS, RIFLES, PISTOLS & FISHING TACKLE, HUNTING AND FISHING SUITS, CAMPING OUTFITS.

Bogardus' Glass Ball Traps, \$10.00; Glass Balls, per hundred, \$2.40.

S. and \$2.50 for our "Wasp" revolver, 22 cal. 7 shot nickel-plate, warranted. Satisfaction guaranteed. Send Stamp for Catalogue.

WASHBURN & CO.,

P. O. box 522, 66 JOHN STREET, N. Y. je14.

Amusements, Etc.

GILMORE'S CONCERT GARDEN.

OPEN EVERY NIGHT IN THE WEEK WITH

GILMORE'S GREAT MILITARY BAND.

SPECIAL PROGRAMMES SUNDAY EVENINGS.

50 cents admission. Boxes seating four, \$3.

Zoological Garden.

FAIRMOUNT PARK, PHILADELPHIA.

Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. June 19

THE GREAT NEW YORK AQUARIUM, Broadway and 35th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments. Coney Island Aquarium now open for the summer.

Publications.

BINDERS.

Get your fine books bound. Art Journal bound uniform to London publishers' style. Picturesque America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done in two or three days if required.

E. WALKER'S SONS, 14 Day street.

"THE OOLOGIST,"

A MONTHLY JOURNAL DEVOTED EXCLUSIVELY TO BIRDS AND BIRDS' EGGS.

This magazine, the favorite of amateur ornithologists, is now in its third volume. It is replete with all that is new or recent in Ornithology and Oology, and publishes important papers on the rarer of our birds and eggs. It is just the periodical for those making collections of birds and eggs for scientific examination, as its columns are constantly furnishing descriptions of the eggs of new and rare species.

Terms—Forty cents a year, in advance. Specimen copies and prospectuses only on receipt of stamp. Address, S. L. WILLARD & CO., Oneida st., Utica, N. Y. je7

Guns, Rifles, Etc.

**SPORTSMEN**

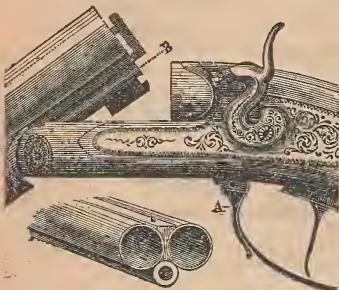
Will find a select assortment of  
Guns,  
Rifles,  
Revolvers,  
Ammunition,  
And all goods appertaining thereto.

Special Attention is Invited to Our New  
**SMITH'S PATENT REVOLVERS,**  
In four sizes of 22, 28, 38 and 41-100 cal.

This new and elegant Arm combines simplicity  
durability, a perfect interchange of all its parts.  
The most critical inspection in process of manufac-  
ture, and with its patent improvements, make it the  
Most Desirable Revolver in the Market.  
A COMPLETE ASSORTMENT OF

**MAYNARD RIFLES, SHOT GUNS, ETC.**  
Send for Circular.

**FOWLER & FULTON,**  
NO. 300 BROADWAY, N. Y.  
M. FOWLER. HENRY FULTON.



THREE BARRELED

**Breech-Loading Guns.**  
(TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a  
light and compact gun from eight to ten pounds,  
giving to sportsmen the very thing so often wanted  
in all kinds of shooting.  
Represented by W. H. Holberton, 102 Nassau Street,  
New York.  
SEND FOR CIRCULAR.

W. H. BAKER,

Sept. 30:6m Lisie, Broome Co., N. Y.

**Sportsman's Depot.**

(ESTABLISHED 1886.)

First premium at World's Fair at New York and  
Centennial Exhibition.



**JOHN KRIDER,**

N. E. Cor. Second and Walnut Sts., Phila.

**GUNS, RIFLES, PISTOLS.**

Fishing Tackle, Rods, Reels, Lines, Hooks, Flies,  
Leaders, Snoods, Artificial Bait, Fly Books,  
Etc., Etc.

Salmon, Bass and Trout Flies Made to Order.

"Kriders" Celebrated Center Enamel Split and  
Glued Bamboo Rods.

Birds' Eggs and Birds' Skins in Great Varieties—  
Taxidermy in all its branches.

Spratts' Patent Dog Biscuits.

Repairing of all kinds. mar-4-ly

For Rifle and Shot Gun Practice.



**DENNISON'S TARGETS.**

25 to 1000 yds. range.

Target Pastors and  
Score Cards.

ALSO,  
Targets & Pads

For testing the pattern  
and penetration of SHOT  
GUNS.

Sold by Dealers in  
Sporting Goods.

On receipt of Ten Cents a 100-yd. Target will  
be sent by mail, with Circular, containing Major  
Henry Fulton's RULES FOR PRIVATE PRACTICE, by

**DENNISON & CO.**

198 BROADWAY, NEW YORK.

Sept 16 3m.

**Decoys** SEND FOR PRICE LIST  
OF THE FINEST DE-  
COY DUCKS IN THE  
WORLD.

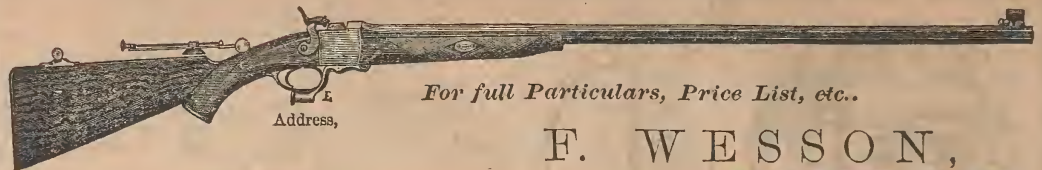
H. A. STEVENS, Manufacturer,  
P. O. box 154. Weedsport, N. Y.  
Aug 16 4t

**DECOYS.**

M. C. WELD,  
Manufacturer of Decoy Ducks, Blacks and Mar-  
lard, 16 inches long; 50 cents each; nice ones.

ET MANHATTAN ST., Rochester, N. Y.

**F. Wesson's Long & Mid-range Rifles, Breech-Loading.**  
THE BEST IN THE WORLD.



For full Particulars, Price List, etc.

**F. WESSON,**  
WORCESTER, MASS.

M. W. Robinson, Agent, No. 70 Chambers street, New York. Received Medal and Diploma at Centennial Exhibition, Philadelphia,

**W. & C. SCOTT & SONS.**



TRIPLEX.

First Prize Medal and Diploma,  
awarded at the Centennial Exhibition,  
for excellence of workmanship and ma-  
terial in their Premier Quality and  
medium grades. Their New Patent-  
Triplex Lever Grip Action and Com-  
pensating Lump. The attention of  
sportsmen is requested to the above  
new action. Its superior strength  
and solidly impart greatly improved  
shooting powers. Hard hitting be-  
ing the desideratum required, is ob-  
tained by this powerful gun. Prices of  
the New Triplex Lever Grip, \$175, \$205  
to \$400. Marked the Triplex 10-bore  
extra. Our highest grade is as usual

marked the PREMIER QUALITY

[Extract from FOREST AND STREAM, New York, December 26, 1876, Contributed by one of the Judges of  
Awards of Guns at the Centennial.]

"This action (The Triplex Lever Grip) combines in the highest degree strength and simplicity, and must  
rapidly secure the favor of all who test its merits.

**COMPENSATING LUMP.** Strongly recommended. It is invaluable, and should be ordered on  
every gun. Costs about \$10 extra. Choke-bore, medium or full. Our guns to be had of the principal  
dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.

**Paper and Metallic Shells**

**Breech-Loading Shot Guns,**

Manufactured by the

**UNION METALLIC CARTRIDGE CO.,**  
BRIDGEPORT, CONN.



**THE BERDAN'S PATENT SHELLS** are the easiest reloaded.  
Do not have to unscrew the head nor use an awl to remove  
the exploded caps. THE PATENT MOVABLE ANVILS,  
made of steel wire, will not bend or break.

THE BERDAN PATENT SHELLS, new model, with  
Hobbs' patent waterproof primers, never miss fire, and are  
highly prized by all that have used them.

**PAPER SHELLS.**—By repeated experiments and great  
outlay for improved materials, and machinery made ex-  
pressly for the purpose, we can now warrant our BROWN  
PAPER SHELLS equal to any imported. They are sure  
fire, and will not burst in the gun.

Inquire of any of the dealers in sporting materials for  
the U. M. C. Co.'s Shells.

Not sold at retail by the manufacturers.



**"St. Louis Conical Base Paper Shell."**



Having made important improvements in our Shell, we  
can safely recommend them as equal, if not superior, in  
quality to any Paper Shell manufactured in this country or  
in Europe.

Among the advantages claimed for these Shells, are: A  
saving of 25 per cent. in the use of powder, also the great  
decrease in recoil. The sizes made are No. 10—2 1/2, 2 1/4,  
and 8 inches; No. 12—2 3/4, 2 3/8, and 2 1/2 inches. Longer  
Shells will be made at extra cost. They are not available. Sample, 100, sent by express on receipt of \$1.15  
for No. 12; \$1.50 for No. 10.

Factory and office, No. 2, 239 De Kalb street, St. Louis, Mo.

**St. Louis Patent Shell Manufacturing Company.**

**Capt. Bogardus' Patent Glass Ball Trap  
and Rough Balls.**

These Traps and Balls patented by Bogardus and used by him many  
thousand times, proves them to be just what is wanted by all

SPORTSMEN'S CLUBS AND AMATEURS.

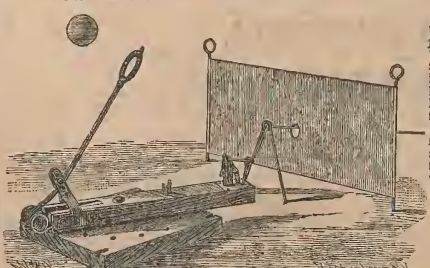
THE PATENT ROUGH BALL—The only Ball that will break sure  
when hit by shot. Use none but the best. Every ball marked. Patented  
April 10, 1877; Traps, March 13, 1877.

**Geo. E. Hart & Co.,**

NEWARK, N. J.

TRADE SUPPLIED.

**HUBER & MERWIN'S CHAMPION BALL TRAP.**



We call the attention of the fraternity  
to the above trap, claiming to be the *ne  
plus ultra*. It combines compactness  
with durability, and is arranged, by a  
swivel on the bed-plate, to throw a ball  
in any direction or at any elevation un-  
known to the shooter, a screen prevent-  
ing his seeing the direction in which the  
trap is set.

The spring, as the cut will show, is  
made of a steel rod or wire, bent spirally  
at the point of attachment, thus receiving  
the concussion its entire length, and pre-  
venting breakage.

**PRICE \$10.**

FOR SALE BY

**BARTON & CO., Sole Agents,**

337 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP,  
for durability and perfection of its operation, superior to them all, and take pleasure in recommending  
the "Champion" to sporting clubs and my friends. (Signed)  
Aug 9 1y IRA A. PAINE.

Founded July 4, 1808.



Thos. W. Sparks,

**Shot & Bar Lead**

MANUFACTURER.

Office 121 Walnut Street, Philadelphia.

Sportmen's Goods.

W. H. HOLABIRD,

Manufacturer of

**Specialties in Clothing  
FOR SPORTSMEN.**  
Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest,  
Pants and Cap, \$10. No. 1 Shooting Coats, water-  
proof and first-class in every particular, sent by  
mail, post-paid, \$6.

Holabird's New Game Bag; weighs 13 ounces.  
The most convenient and coolest garment ever  
offered to Sportsmen. Can be used in place of a  
coat; room for 50 shells and 75 snipe or quail; by  
mail for \$2.

Holabird's New Cartridge Vest, capacity for fifty  
shells; simple and admirable for boat shooting;  
\$2.50. Fine Linen, Corduroy and Fustian suits made  
to order in the neatest and most desirable style.  
Send 25 cents for my book on D-g breaking and  
catalogue of goods. Money returned if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods.

July 12 1t

**NO MORE BROKEN GLASS!**

Paine & Holberton's composition balls can be used  
in any trap. Patent applied for.  
Price per 100.....\$3

This ball is perfectly harmless, and is a benefit to  
have rather than an injury. Many accidents have  
occurred from the broken glass balls, and every day  
it is becoming more difficult to find places to practice  
with the glass balls. These balls come packed  
500 in a barrel.

W. HOLBERTON, Sole Agent,

P. O. Box 5,100, 102 Nassau Street, N. Y.

Aug 23

**SOLA HAT.**



This Hat is made of waterproof duck, dead grass  
color, and in the same style as East India Hats; is  
the coolest and best yet offered to sportsmen.

Absolute Guarantee against Sunstroke.

For sale by all dealers in sportsmen's goods, or  
sent by mail, securely packed, postage prepaid,  
price \$3.

Address,  
**THOMSON & SON,**

391 Broadway, New York.

P. O. box 1,016.  
Send stamp for illustrated catalogue of sports-  
men's goods. Ag 1t

**Magic Lanterns and Stereopticons.**

E. & H. T. ANTHONY & CO., 591 Broadway,  
N. Y., opposite Metropolitan. Stereoscopes  
and Views; Graphoscopes, Chromas and Frames;  
Albums, Photographs of Celebrities, Photographic  
Transparencies, Convex Glass, Photographic Ma-  
terials. Awarded First Premium at Vienna and  
Philadelphia. dec 5

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

NEW YORK, THURSDAY, SEPTEMBER 13, 1877.

Volume 9.—No. 6.  
No. 111 Fulton St., N. Y.

Terms, Four Dollars a Year—  
Ten Cents a Copy.

### THE KING OF THE BROOK.

Give me the rod and reel,  
The wee strong line and the keen-barbed hook;  
Give me the joy all true fishers feel  
Who vanquish the King of the Brook!

He is a goodly prince:  
In his royal robe of red and gold,  
Like a sultan's, rich with sheeny tints,  
How he darts through the water cold!

A kingly home is his:  
The sparkling pool in the mad spring stream!  
Name me the palace brighter than this  
In the silvery ripple's gleam.

Ah, 'tis a glory rare,  
With footstep soft, and with bated breath,  
To tempt the king from his fastness fair,  
And battle him unto the death!

He dies as monarchs die  
Who of dastardly fear give no sign,  
But fight for life till their latest sigh—  
Royal proof of his royal line!

Ye who extol the town,  
Take it's wealth, its pride, its fleeting joys,  
Its mansions high, with their fronts of brown,  
Its beauty, its fashions, its toys.

But give me rod and reel,  
The wee strong line and the keen-barbed hook;  
Give me the joy all true fishers feel  
Who vanquish the King of the Brook!

M. A. KINGSFORD.

### Anglimania.

TIME was, when the approach of spring infused a quicker life into these veins—when the warming of the sun and the singing of purling streams sent me, with lithe limbs, up among the hills and high valleys, a devotee of that edifying religion taught by St. Izaak—the Art of Angling.

"That true joy that anglers feel" is little known by him who sits the live long day with his legs dangling over a dusty wharf feeling for flounders with a hoop-pole and chalk-line; nor yet by him, who, "rocked on the rolling deep," till his very stomach goes out of him, tugs away at a cod, or eke a halibut, till his fingers are worn to the bone, by much grabbing and gripping of the line, and flourishing of the gaff and the "muntle." Doubtless, the hearing something drop in the dust behind one, "flat as a flounder," has its little satisfactions—with reference to the frying-pan. The writer has himself experienced the laborious rapture of the strife in snaking and being snaked alternately by a fifty-pound cod or a two hundred-pound halibut under the disadvantages of a strong tide, a forty fathom line and a five-pound lead; and he is able to say it is very like undergoing comfort. But after finishing a work of this kind, I never, when the season came around, felt an uncontrollable desire to go back and do it again.

But if there is anything in this world capable of affording unalloyed happiness, it's what the Shepherd, in "The Noctes," calls "throwing the fee" for the speckled denizens of the clear brooks and cool lakes. And he who has the gift, and has once acquired the skill, requisite to success, will prize this above all sports. He will become possessed of an anglimania. He will never see the glint of clear water but that he will look, haply, for the rainbow flash of the trout or listen for his spiteful break and quick plunge as he takes the flying game. And the true angler will take no more delight in looking upon a weedy pickerel-pond or a bullhead slue than in contemplating the black flood of Styx or Cocytus.

The trout, though a fastidious epicure, is greedy; and, if you know how to do it, and where to look for him, can be caught at almost all times and seasons, and even through the ice.

It is the custom in many places as soon as the snow is nearly gone and the ground thawed enough to dig worms, to sally forth eager for the first haul, and by soaking at the bottom of deep pools to catch a mess of trout. The poor, half-starved fish, not yet recovered from spawning, dull and stupid, manage to gorge the bait and are, with scarce a struggle, lifted out upon the bank. Their heads look large, their bodies are thin and flabby, their colors dim, and, as a luxury for the

Selected.

table, they are hardly up to a sucker from the same waters. And yet these pot-poachers carry them home—usually with a few big clubs to grace (grease) the "string"—cook them with boar-pork in order to get a "game flavor," crack Jersey champagne over them, and boast of their exploits in trout fishing!

Then there is another class of trout fishers—save the mark!—who, from April to November, plunge into small streams with nets, baskets, lines, poles, etc., and literally "clean them out." And you will hear these fellows, too, brag over the splendid lot of trout they caught. *Caught—Eh!*

If I were a keeper of sheep, and not of fish, and had such fellows for neighbors, I should hope they wouldn't get sick of fish and begin to hanker after mutton.

In most waters in New York State the trout does not begin to take the fly in a manner satisfactory to the adept until—varying in different waters—from the 1st of June to the 1st of July. Indeed, my experience would put these limits nearly a month later. But on the southern slope of Long Island they affect to kill trout with the fly as early as the 1st of March; and in the celebrated Caledonia Spring it is said they may be killed in that way every month in the year. The trout, in brooks, is never in perfection until, leaving the sluggish waters, he is found in the rifts, and in lakes and deep rivers in the spring-holes.

Then it is that he begins to jump at the natural fly, and, after a few hot days and muggy nights, becomes capable of verifying that rather spry comparison expressed by the phrase, "quick'n lightning." If the "Culprit Fay" had been condemned (instead of thrusting a dipper under the clumsy leap of a sturgeon) to catch one of the diamond drops under the rainbow arch of a trout, when in his prime he flips a fly, it is altogether probable that his high crime and misdemeanor of loving a mortal maid, would have been unatoned for still. In fact, it is possible that he would have given up the task in despair, and have gone and done it again just like any mortal.

For my part I struggle against the seductions of spring mornings, April showers and May suns. Even the glory of the apple blossoms cannot now entice me to the stream's side with minnow, grub, worm or spinner. But when the delicious air is laden with the aroma of the red clover blooms, sweet beyond all "the spicy gales of Araby the blest," then on some day, when a haze dims the brightness of the sun and a light cloud now and then hides his reddening disk, a warm southern or western breeze the while just curling the surface of the pools and broad shallows, set me down with a slow mate that loves "to go a angling," by some generous stream where saw-mills and tanneries and nets and sheep thieves are not, and then leave me "lapped in Elysium."

And now for the tackle. For a bait-rod you may use anything except a fly-rod. Fly-rods may be of any weight from the heavy ones for salmon down to those weighing six ounces for trout. Doubtless the strongest rod for its weight and the lightest rod for its strength is the Hexagonal, or six-splint bamboo; and these, as I think, are made in their perfection by Leonard, of Bangor, and Doctor Fowler, of Ithaca, N. Y. In length the rod should be from nine feet to eighteen feet. The latter is the length prescribed in "The Complete Angler." Those who have become habituated to any length will be apt to prefer that. Thirty years ago or so I found in the wilds of Pine Creek, in the month of June, a genial old gentleman whose religion was trout fishing. He was a brother of that Richard D. Davis, of Poughkeepsie, whose eloquence in the Hard Cider Campaign of 1840 charmed and carried away captive all hearts, whether of friend or foe; and whose maiden speech in the House of Representatives, Henry Clay and his peers ran from the Senate Chamber to hear. This disciple of St. Izaak had a wilderness of all sorts of fishing apparatus. But his glory was a Conroy rod with a multiplier which held a hundred yards of line.

This rod was a *chef d'oeuvre* of workmanship in those days, and when put together was twenty-one feet long. Interpellated by a native wherefore he used "such a long fish pole," he said he had been told that the townships about there severally had a regulation prohibiting non-residents from entering within their bounds and catching trout; and he had had this rod made so as to stand in one township and fish in the one adjoining.

It is a triumph of art and a streak of good luck for the best fabricator to produce a fly-rod that shall be perfect in all its parts. Some, like a rheumatic man, are stiff in the joints,

and recoil from the spring with a harsh jar, which is communicated to the hand. Some others, looking like the very doubles of the former, are so elastic and so lithe that the hand will feel the pitch and the recoil no more than it would the graceful swinging of the pendules of the willow. The rod must not be too yielding toward the hand, for then the motion will be weak, but so graduated that a quick turn of the wrist will send an increasing wave of motion to the tip as quickly as the brain sends its volition through the nerves.

The reel, like a woman, may be single or a multiplier. I used for many years a Conroy multiplier—the best in its day—but far too heavy. Now, the Orvis perforated, the Celluloid and Doctor Fowler's hard rubber reel, the last weighing only one ounce for a trout rod, are all that can be asked for ease and perfection of work. The line should be smooth and strong and small, and as heavy as possible in proportion to the size. Smallness and weight are well obtained by a silk line, braided, saturated with a paint composed of white lead and oil, and brought to a lead-color by lamp-black. The line for trout should not be less than thirty yards. Good fly-fishers differ as to the best length of the casting line and the number of flies. I have always used on ponds and large streams a casting-line of ten feet, with three flies. In small streams a yard and a half or two yards with one or two flies is better.

Now for the flies. "*Hic labor, hoc opus est.*" It is, no doubt, a fine thing to be competent to sit down on a mossy bank and out of your *omnium gatherum* of white crows' feathers, green monkey's fur, etc., construct a fly just like the living one there on the stream. But I have found it best to buy of those who knew how to tie a fly better than I did. Beyond comparison, the most durable, the most life-like, and in all respects the best flies I had ever seen down to some ten years ago were made by John McBride or in his family. He was a dweller by the Caledonia Spring. I could tell one of his flies from any other as far as I could see it—and so could a trout.

In "fly fysics" with an angle," as Dame Juliana Berners hath it, some prefer to fish up and some down stream. A good angler or fly-fisher will fish up or down, as pleases him or the trout; or if requisite will take his game on the flank. Other things being equal I prefer fishing down.

Now, mate, a few casts on a piece of barren water to straighten your line. A dozen yards below, the stream sparkles over a rift, and, growing deeper, eddies under a half immersed log, and then opens into a handsome pool below. Moving carefully and keeping the flies from the ground by springing the rod back and forth as I go, when arrived at just the right spot, I let the gay deceivers fall upon the rift. A bright flash and a quick splash and the wrist—not the arm from the shoulder or even the elbow—answers to the sight and sound as instantaneously as sight and hearing. The elastic rod responds to the signal and the trout is hooked.

At the same instant the tip and the arm go, the rod bends to a parabola. What a flutter! Keel the tip down, holding him there. No chance to play him here. It will not do to let him flounce long with the advantage of this current, nor will it do to let him down under the log into the pool. It is clear that he must come out. But the rod cannot lift him. How? The beach is low and gravelly; step backward, lower the tip and snake him out by sheer strength of the line. Auld Johnny's tackle is true, and there he comes throwing himself end over end. Hurrah! A thrust of a penknife in the neck—that is kindness and mercy—and in a wisp of grass he lies in the creel. Silver and green and gold; beautiful! Thirteen ounces avoirdupois.

All this while—and it wasn't long—my slow mate by a flank movement has hooked the match of mine in the pool below, and having room to play has stepped in with the game, and is carefully playing and taking all the chances. The trout goes this way and that with a desperate rush, but the steady and unrelenting elasticity of the rod checks and turns him, until, tamed at last, he floats, wearied and despairing, to the hand of the patient angler, almost. He is just carefully putting his hand on the capture, and, in stooping, has incautiously given a little slack line. Kerwhollup! The little hook, worn loose by long playing, drops out, and my mate's expectant hand shuts upon water. Reader, you may think Job had his patience pretty well tried, but we don't read of anything like this.

Now I remember me that I am a cripple, and we hipple

along down stream. Still! There was a rise, down where the water taking a deep swirl under the overhanging rock forms a handsome pool shallowing toward us to the shore. Wait a minute, till he gets settled. Now! My mate's flies fall, light as snow flakes, right over the spot where the hungry fellow broke. Jewwreale! Three jump clear out of the water. Mate is a little startled, and for an instant his right hand forgets its cunning. He only looks one, and that a light one, which he lifts easily to hand. The other two were whoppers. We draw carefully back out of sight and seat ourselves "*sub tegmine fagi*." Mate declares he'll never give a big trout any slack again, and lamenting his luck, we while away a quarter of an hour. This time we practice a little strategy. We divide our forces. I give mate the post of honor—the attack in front. I hobble a circuit, and, approaching above, take position to charge the rear.

One! The casting lines are tossed from the thumb and finger of the left hand; up goes the tip with a jerk, and ten yards out behind go the flies. Two! Forward, out over the pool a yard above it they go, and, slightly recoiling, fall upon the water side by side like insects wearied with a long flight. The monarchs of the pool cannot endure that. Splash, splash, how the water flies and foams. We have them both. No slack this time; and, after a long labor of love, we lay them in our creels. Starry and mottled sides, scarlet fins and rose-pink bellies; one pound four and one pound six.

Again we move gently down the stream. There the capricious brook sheers to the left and cuts in under an alder-shaded bank, bound and kept in place by the interlaced roots. A dark, deep pool, and half over-reached by the branches drooping into the water, there is an open space like an arch beneath; but no skill of casting avails to enter it. How? There is a slight current. I hook the stretcher into a small piece of dry bark, place it carefully in the water some yards above, follow it, giving line, and it floats slowly down through the leafy arch to the lower end of the pool. Wait a second. Just a shake of the rod and the stretcher is free of the bark. The gay deceivers move up stream agitated by a scarce visible tremor of the rod, the dropper dabbling and duncing as it goes. The stretcher is just emerging from the green arch. "A water haul," says mate, "I guess you—thunder!" as a monster breaks like a sperm whale—only with a motion quicker—and gobbles the stretcher. The good line twangs like a fiddle string as the rod comes loits work. But if he gets down among those roots all is lost, and he is too heavy and too snug for a man's pull. O, St. Izaak! we vow a great club to tly altar, if every thing holds for the space of seven wiggles of a trout's propeller!

In that time, forgetful of neuralgia and rheumatism, I leap in and stride to the opposite bank, keeping a tight rein. Then, risking the last fibre upon the strain, I succeed in persuading the contestant up stream far enough to clear the drooping branches and bring him outside. Here is room and verge enough, and here, after a brave struggle, the gallant fellow surrenders, and floats unresistingly to hand. Killed he weighs by the pocket spring one pound fifteen ounces. We couldn't make him bring down the other ounce, without halting him with pebbles, as I once knew an ambitious fisherman to do with a huge lake salmon.

Ugh! how these muscles twinge and these old joints grate as I wade carefully back and mate helps me up the bank.

Upon taking an observation we perceive the clouds have been gathering, and in a moment come a few drops of rain. Below us begins a long ripple, ending in a dark-looking pool seven or eight rods long and two or three wide. It is embowered with high, o'er-arching birches, and on the farther side, toward which the current inclines, the bottom is rough with large stones, and from the bank projects a half sunken tree top.

"Now, mate, while the clouds favor and the frequent drops ripple the surface, cast your flies and your fortunes upon that pool. Hold! what have you?" "Auld Johnny's 'gizzley king' for a stretcher, then the 'poor man's fly' and the 'dark fox' for a dropper."

"All right." I sit down and have the evensong pleasure of seeing mate take a pair of half-pounders from the head of the pool. Another and another and another cast, lower and lower down, then over by the tree tops. "There she blows! clear out of the water and looking a cloth-yard long." By the eyes of our dame he hath hooked him! "Room enough—give him line but no slack." Mate and monster have it, forward and back, cross over, chasse down, outside and up the middle, till mate's partner wears and is handed to a grassy seat. Sure as you live he weighed—the trout did—two pounds and seventeen, no, seven ounces. That beats me and mate is "high hook." What a beauty!—the trout, not mate. By the way I never knew a very handsome man to be a good trout fisher, always excepting the present company, and, perhaps, old Dr. Bethune of blessed memory.

Then we discovered that it was 3 p. m. and raining. Taking shelter under the leaning trunk and wide leaves of a great basswood—"unter den binden"—we spread our humble scrip, and made a late but delicious dinner. There, while the warm shower passed over us, were reviewed our exploits of the day and of other days, discussed the merits and defects of rod and line and flies, forgot the vexations of the world, and were happy.

The rain ceases, the sun blazes out in the West, and the bow of promise springs its seven-lined arch from one hill-top to the other, far to our left, as it were a great bridge spanning the gulf between. The grass shows a fresher green, the air is pure and exhilarating. The ephemera again hover over the stream, and under the dripping birches the small fry are leaping in the pool before us.

"Mate, you are young (he's only about fifty) and a poet without. Does not this scene of beauty inspire you? Give us an *improvisation*."

"'Tis pretty," says he. "Nature looks as if she had just washed her face and combed her hair." Throwing back his head he spouted:

"The rainbow in the morning  
Is the sailor's warning;  
The rainbow at night  
Is the sailor's delight.  
Is the sailor's delight."

"Seems to me I've heard that before." "Seems to me I have too. I'll give you something new:

"The sailor's warning  
Is the rainbow in the morning;  
The sailor's delight  
Is the rainbow at night."

Whutter r-r! plung g! and a great boiling eddy goes circling away from just outside the old tree-top. The young cod finished his now stanza with a "Whoo-la," as he sprang to his feet and clenched his rod.

"Hold on, mate; I hoped to hear from you a real burst of poetic feeling." "Hang it! it's all busted now. And don't you know expression destroys feeling? No; let us enjoy it in expressive silence. And don't you remember what Mr.

Tickler said to the shepherd? S. says he: 'James, never make verses when you can catch trout with a fly.'" Saying which, mate strode toward the pool. But the flies fell not with the grace and softness which mark the "casts" of the adept, but with a heavy splash as if delivered from the blow of a whip. The result—nothing. It may have been that the trout's "pertikler vanity" wasn't any fly on that line, or it may have been—as I am inclined to believe after all—that he had resolved not to rise. Mate casts along down the pool and lifts to hand a dozen small fry to fill the chinks in his creel. Returning, he tries for the sole monarch again, but repeated casts fail to entice him.

"Come, mate, we have enough; let's go. You forget we've twenty miles to drive. Come again some warm evening at dusk, string out the 'Soth Green,' the 'Quaker' and the 'Red Fox,' and you'll raise him the first throw." H. And there hangs a tale.

## INTRODUCTION AND SUCCESSION OF VERTEBRATE LIFE IN AMERICA.\*

By O. C. MARSH.

PRESIDENT OF THE BIOLOGICAL SECTION OF THE AMERICAN ASSOCIATION.

SECOND PAPER.

REPTILES and Birds form the next great division of vertebrates, the Sauropsida, and of these the Reptiles are the older type, and may be first considered. While it may be stated with certainty that there is at present no evidence of the existence of this group in American rocks older than the Carboniferous, there is some doubt in regard to their appearance even in this period. Various foot-prints which strongly resemble those made by Lizards; a few well preserved remains similar to the corresponding bones in that group; and a few characteristic specimens, nearly identical with those from another order of this class, are known from American Coal Measures. These facts, and some others which point in the same direction, render it probable that we may soon have conclusive evidence of the presence of true Reptiles in this formation, and in our over-lying Permian, which is essentially a part of the same series. In the Permian rocks of Europe, true Reptiles have been found.

The Mesozoic Period has been called the Age of Reptiles, and during its continuance some of the strangest forms of reptilian life made their appearance, and became extinct. Near its commencement, while the Triassic shales and sandstones were being deposited, true reptiles were abundant. Among the most characteristic remains discovered are those of the genus *Belodon*, which is well known also in the Trias of Europe. It belongs to the Thecodont division of Reptiles, which have teeth in distinct sockets, and its nearest affinities are with the Crocodilia, of which order it may be considered the oldest known representative. In the same strata in which the *Belodonts* occur, remains of Dinosaurs are found, and it is a most interesting fact that these highest of reptiles should make their appearance, even in a generalized form, at this stage of the earth's history. The Dinosaurs, although true reptiles in all their more important characters, show certain well marked points of resemblance to existing birds of the order *Ratitia*, a group which includes the Ostriches; and it is not improbable that they were the parent stock from which birds originated.

During Triassic time, the Dinosaurs attained in America an enormous development both in variety of forms and in size. Although comparatively few of their bones have as yet been discovered in the rocks of this country, they have left unmistakable evidence of their presence in the foot-prints and other impressions on the shores of the waters which they frequented. The Triassic sandstone of the Connecticut Valley has long been famous for its fossil foot-prints, especially the so-called "bird-tracks," which are generally supposed to have been made by birds, the tracks of which many of them closely resemble. A careful investigation, however, of nearly all the specimens yet discovered, has convinced me that there is not a particle of evidence that any of these fossil impressions were made by birds. Most of these three-toed tracks were certainly not made by birds; but by quadrupeds, which usually walked upon their hind feet alone, and only occasionally put to the ground their smaller anterior extremities. I have myself detected the impressions of these anterior limbs in connection with the posterior foot-prints of nearly all of the supposed "bird-tracks" described, and have little doubt that they will eventually be found with all. These double impressions are precisely the kind which Dinosaurian reptiles would make, and as the only characteristic bones yet found in the same rocks belong to animals of this group, it is but fair to attribute all these foot-prints to Dinosaurs, even where no impressions of fore-feet have been detected, until some evidence appears that they were made by Birds. I have no doubt that Birds existed at this time, although at present the proof is wanting.

The principal genera of Triassic Reptiles known from osseous remains in this country are, *Amphisaurus* (*Megadactylus*), from the Connecticut Valley, *Bathynotus*, from Prince Edward's Island, *Belodon* and *Clepsysaurus*. Other generic names which have been applied to foot-prints and to fragmentary remains, need not be here enumerated. A few remains of Reptiles have been found in undoubted Jurassic rocks of America, but they are not sufficiently well determined to be of service in this connection. Others have been reported from supposed Jurassic strata, which are now known to be Cretaceous. It will thus be seen that, although reptilian life was especially abundant during the Triassic and Jurassic periods, but few bones have been found. This is owing in part to the character of most of the rocks then formed, which were not well fitted for preserving such remains, although admirably adapted to retain foot-prints.

During the Cretaceous Period, Reptilian life in America attained its greatest development, and the sediments laid down

in the open seas and estuaries were usually most favorable to the preservation of a faithful record of its various phases. Without such a perfect matrix as some of these deposits afford many of the most interesting vertebrates recently brought to light from this formation would probably have remained unknown. The vast extent of these beds insures, moreover, many future discoveries of interest.

In the lowest Cretaceous strata of the Rocky Mountain region, the Dakota group, part of which at least represents the Wealden of Europe, remains of *Chelonis*, or Turtles, Crocodiles, and Dinosaurs occur, the last being especially abundant. The *Chelonis*, although known from the Jurassic of Europe, here appear for the first time in American rocks. Some of the earliest forms are allied to the modern genus *Trionyx*. In the higher Cretaceous beds, some *Chelonians* of enormous size have been found. They belong to the genus *Atlanochelys*, which has the ribs separate, as in the existing *Sphargis*, and presents other embryonic characters. A few genera appear to be related to the modern genus *Chelone*. The remaining Cretaceous species were mostly of the Emydoid type; and others were related to *Chelydra*. The more important genera of Cretaceous *Chelonians* known from characteristic specimens are *Atlanochelys* (*Protoschelys*), *Adocus*, *Bathremys*, *Compsemys*, *Plasmodemys*, *Osteopygia*, *Propleura*, *Lytoloma*, and *Taphrosphys*. Most of these genera were represented by several species, and the individuals were numerous. No land Tortoises have as yet been found in this formation. In American Tertiary deposits, *Chelonians* are abundant, especially in the fresh-water beds. They all show near affinities with modern types, and most of them can be referred to existing genera. In the Tertiary lake-basins of the West, land Tortoises are very numerous, and with them are many fresh-water forms of *Trionyx* and allied genera.

A striking feature of the American Cretaceous fauna, as contrasted with that of Europe, is the almost entire absence in our strata of species of *Ichthyosaurus* and *Plesiosaurus*, which abound in many other regions, but here seem to be replaced by the Mosasaurs. A few fragmentary remains have indeed been referred to these genera, but the determination may fairly be questioned. This is more than true of the proposed new order *Streptosauria*, which was founded wholly on error. The order *Plesiosauria*, however, is well represented, but mainly by forms more nearly related to the genus *Pliosaurus* than to the type of the group. These were marine reptiles, all of large size, while some of them attained vast dimensions. So far as at present identified, they may be referred to the genera, *Cimoliosaurus*, *Diceliosaurus* (*Eltanosaurus*), and *Pliosaurus*. The number of species is comparatively few, and none are known above the Cretaceous. The important suggestion of Gegenbaur, that the *Halysauria*, which include the *Plesiosaurs*, branched off from the Fishes, before the Amphibians, finds some support in American specimens recently discovered.

The Reptiles most characteristic of our American Cretaceous strata are *Mosasauria*, a group with very few representatives in other parts of the world. In our Cretaceous seas, they ruled supreme, as their numbers, size, and carnivorous habits, enabled them to easily vanquish all rivals. Some were at least sixty feet in length, and the smallest ten or twelve. In the inland Cretaceous sea from which the Rocky Mountains were beginning to emerge, these ancient "Sea Serpents" abounded; and many were entombed in its muddy bottom. On one occasion as I rode through a valley washed out of this old ocean bed, I saw no less than seven different skeletons of these monsters in sight at once. The Mosasaurs were essentially swimming Lizards, with four well developed paddles, and they have little affinity with modern serpents, to which they had been compared. The species are quite numerous, but they belong to comparatively few genera, of which *Mosasaurus*, *Tylosaurus*, *Lesotysaurus* and *Eltanosaurus* have alone been identified with certainty. The genus *Mosasaurus* was first found in Europe. All the known species of the group are Cretaceous.

The *Crocodylia* are abundant in rocks of Cretaceous age in America, and two distinct types are represented. The older type, which is foreshadowed by *Belodon* of the Trias, has biconcave vertebrae, and shows marked affinities with the genus *Telosaurus* from the Jur. of Europe. The best known genus is *Hyposaurus*, of which there are several species, all more or less resembling in form the modern Gavial of the Ganges. A peculiar intermediate form is seen in *Diplosaurus*, from the Wealden of the Rocky Mountains. The second type, which now makes its appearance for the first time, has procoelous vertebrae, and in other respects resembles existing Crocodiles. The genera described are, *Bollosaurus*, *Holops* and *Thorosaurus*, none of which, so far as known, pass above the Cretaceous. Of *Crocodylia* with opisthocelous vertebrae, America, so far as we know, has none. Specimens similar to those so termed in Europe are not uncommon here, but they pertain to Dinosaurs. In the Eocene fresh-water beds of the West, Crocodilians are especially abundant, and all, with the exception of *Limnosaurus*, belong apparently to the genus *Crocodylus*, although some species show certain points of resemblance to existing Alligators. The Miocene lake-basins of the same region contain no remains of Crocodiles, so far as known, and the Tertiary deposits have afforded only a single species. The Tertiary marine beds of the Atlantic Coast contain comparatively few Crocodilian remains, and all are of modern types; the genus *Cavalius* having one Eocene species, and the Alligator being represented only in the latest deposits.

It is worthy of special mention in this connection, that no true *Lacertilia*, or Lizards, and no *Ophidia*, or Serpents, have yet been detected in American Cretaceous beds; although their remains, if present, would hardly have escaped observation in the regions explored. The former will doubtless be found, as several species occur in the Mesozoic of Europe; and perhaps the latter, although the Ophidians are apparently a more modern type. In the Eocene lake-basins of Western America, remains of Lizards are very numerous, and indicate species much larger than any existing to-day. Some of these, the *Glyptosauridae*, were protected by a highly ornamented bony coat of mail, and others were covered with scales like recent Lizards. A few resembled, in their more important characters, the modern Iguana. The genera best represented in the Eocene are, *Glyptosaurus*, *Iguanodon*, *Orosaurus*, *Thinosaurus*, *Pinosaurus* and *Santia*. Some of these genera appear to have continued into the Miocene, but here, as well as in the Pliocene, few remains of this group have been found. It is not improbable that some of our extinct reptiles may prove to belong to *Rhynchophata*, but at present this is uncertain. The genus *Nyctosaurus*, from Brazil, has biconcave vertebrae, and some other characters which point to that group. No Dicomodonts or Theriodonts have as yet been found in this country.

The first American Serpents, so far as now known, appear in the Eocene, which contains also the oldest European species. On the Atlantic border, the genus *Titanophis* (*Diaplophis*) is represented by several species of large size, one at least thirty feet in length, and all doubtless inhabitants of the sea. In the

\* Delivered before the American Association for the Advancement of Science, at Nashville, Tenn., Aug 31, 1877.

fresh-water Western Eocene, remains of snakes are abundant, but all are of moderate size. The largest of these were related to the modern Boa Constrictors. The genera described are *Baurus*, *Lithophis* and *Linnophis*. The Miocene and Pliocene snakes from the same region are known only from a few fragmentary remains.

The *Pterosauria*, or flying lizards, are among the most interesting reptiles of Mesozoic time, and many of them left their remains in the soft sediment of our inland Cretaceous sea. These were veritable Dragons, having a spread of wings of from ten to twenty-five feet. They differed essentially from the smaller Pterodactyls found in the old world, in the entire absence of teeth, showing in this respect a resemblance to modern birds; and they possess other distinctive characters. They have therefore been placed in a new order, *Pteranodontia*, from the typical genus *Pteranodon*, of which five species are known. The only other genus is *Nyctosaurus*, represented by a single species. All the specimens yet found are from essentially the same horizon in the Chalk of Kansas. The report of discovery of remains of this order from older formations in this country is without foundation.

The strange reptiles known as *Dinosauria*, which, as we have seen were numerous during the deposition of our Triassic shales and sandstones, have not yet been found in American Jurassic, but were well represented here throughout the Cretaceous, and at its close became extinct. These animals possess a peculiar interest to the anatomist, since, although reptilian in all their main characters, they show clear affinities with the Birds, and have some features which may point to Mammals. The Cretaceous Dinosaurs were all of large size, and most of them walked on the hind feet alone, like modern Struthionous birds. Two well marked types may be distinguished among the remains discovered in deposits of this age: the herbivorous forms, represented mainly by *Hadrosaurus*, a nearly ally of the *Iguanodon* of Europe; and their carnivorous enemies, of which *Dryposaurus* (*Lalaps*) may be considered typical in this country, and *Megalosaurus* in Europe. Near the base of our Cretaceous formation, in beds which I regard as the equivalent of the European Wealden, the most gigantic forms of this order yet discovered have recently been brought to light. One of these monsters (*Titanosaurus montanus*), from Colorado, is by far the largest land animal yet discovered; its dimensions being greater than was supposed possible, in an animal that lived and moved upon the land. It was some fifty or sixty feet in length, and when erect, at least thirty feet in height. It doubtless fed upon the foliage of the mountain forests, portions of which are preserved with its remains. With *Titanosaurus*, the bones of smaller Dinosaurs, as well as those of Crocodiles and Turtles, are not uncommon. The recent discovery of these interesting remains, many and various, in strata that had long been pronounced by professional explorers barren of vertebrate fossils, should teach caution to those who decline to accept the imperfection of our knowledge to day as a fair plea for the supposed absence of intermediate forms.

In the marine Cretaceous beds of the West, only a single Dinosaur (*Hadrosaurus agilis*), has been found but in the higher fresh-water beds, which mark the close of this formation, their remains are numerous, and indicate several well marked species, if not genera. In the marine beds on the Atlantic Coast, the bones of Dinosaurs are frequently met with, and in the Upper Cretaceous Green-sand of New Jersey, the type specimens of *Hadrosaurus* and *Dryposaurus* were found. In Cretaceous fresh-water deposits on the coast of Brazil, remains of this order occur, but the specimens hitherto discovered are not sufficiently characteristic for accurate determination. This is unfortunately true of many Dinosaurian fossils from North America, but the great number of these reptiles which lived here during the Cretaceous period promises many future discoveries, and substantial additions to our present knowledge of the group.

The first appearance of Birds in America, according to our present knowledge, was during the Cretaceous period, although many announcements have been made of their existence in preceding epochs. The evidence of their presence in the Trias, based on footprints and other impressions, is, at present, as we have seen, without value; although we may confidently await their discovery there, if not in older formations. *Archæopteryx*, from the European Jura, the oldest bird known, and now fortunately represented by more than a single specimen, clearly indicates a much higher antiquity for the class. The earliest American forms, at present known, are the *Odonotornithes*, or Birds with teeth, which have been exhumed within the last few years, from the Chalk of Kansas. The two genera, *Hesperornis* and *Ichthyornis*, are types of distinct orders, and differ from each other and from *Archæopteryx* much more than do any existing birds among themselves; thus showing that Birds are now a closed type, and that the key to the history of the class must be sought for in the distant past.

In *Hesperornis*, we have a large aquatic bird, nearly six feet in length, with a strange combination of characters. The jaws are provided with teeth, set in grooves; the wings were rudimentary and useless, while the legs were very similar to those of modern diving birds. This last feature was merely an adaptation, as the more important characters are Struthionous, showing that *Hesperornis* was essentially a carnivorous swimming Ostrich. *Ichthyornis*, a small flying bird, was stranger still, as the teeth were in sockets, and the vertebrae biconcave, as in Fishes and a few Reptiles. *Apatornis* and other allied forms occur in the same beds, and probably all were provided with teeth. It is strange that the companions of these ancient toothed birds should have been Pterodactyls without teeth. In the later Cretaceous beds of the Atlantic coast various remains of aquatic birds have been found, but all are apparently distinct from those of the West. The known genera of American Cretaceous birds are: *Apatornis*, *Isiptornis*, *Graculornis*, *Hesperornis*, *Ichthyornis*, *Laornis*, *Lesionis*, *Palaestringia* and *Telmatornis*. These are represented by some twenty species. In Europe but two species of Cretaceous birds are known, and both are based upon fragmentary specimens.

During the Tertiary Period Birds were numerous in this country, and all yet discovered appear to have belonged to modern types. The Eocene species described are mostly wading birds, but here, and in the later Tertiary deposits, some characteristic American forms make their appearance, strongly foreshadowing our present avian fauna. The extinct genera are the Eocene *Uinornis*, related to the Woodpeckers, and *Aletornis*, which includes several species of Waders. Among the existing genera found in our Tertiary beds are: *Actitis*, *Bubo*, *Meleagris*, *Grus*, *Graculus*, *Puffinus* and *Colaptes*. The Great Auk (*Alca impennis*), which was once very abundant on our Northern Coast, has become extinct within a few years.

In this brief summary of the past life of Reptiles and Birds in America, I have endeavored to exclude doubtful forms, and those very imperfectly known, preferring to present the con-

clusions reached by careful study, incomplete though they be, rather than weary you with a descriptive catalogue of all the fossils to which names have been applied. Even this condensed review can hardly fail to give you some conception of the wealth of our continent in the extinct forms of these groups, and thus to suggest what its actual life must have been.

Although the Trias offers at present the first unquestioned evidence of true Reptiles, we certainly should not be justified in supposing for a moment that older forms did not exist. So, too, in considering the different groups of Reptiles, which seem to make their first appearance at certain horizons, flourish for a time; and then decline, or disappear, every day brings evidence to show that they are but fragments of the unraveled strands which converge in the past to form the mystic cord uniting all life. If the attempt is made to follow back any single thread, and thus trace the lineage of a group, we are met by difficulties which the science of to-day can only partially remove. And yet the anatomist constantly sees in the fragments which his studies hint of relationship which are to him sure prophecies of future discoveries.

The genealogy of the *Chelonis* is at present unknown, and our American extinct forms, so far as we now have them, throw little light on their ancestry. This is essentially true, also, of our *Plesiosauria*, *Lucertilia* and *Ophiidia*, although suggestive facts are not wanting to indicate possible lines of descent. With the *Crocodylia*, however, the case seems to be different, and Huxley has clearly pointed out the path for investigation. It is probable that material already exists in our museum for tracing the group through several important steps in its development. We have already seen that the modern procelonian type of this order goes back only to the Upper Cretaceous, while the *Belodontis* of our Triassic rocks, with their biconcave vertebrae, are the oldest known Crocodylians. Our Jurassic, unfortunately, throws but little light on the intermediate forms, but we know that the line was continued, as it was in the old world through *Telosaurus*. The beds of the Rocky Mountain Wealden have just furnished us with a genuine "missing link," a saurian (*Dipsosaurus*) with essentially the skull and teeth of a modern Crocodile, and the vertebrae of its predecessor from the Trias. This peculiar reptile clearly represents an important stage in the progressive series, and evidently one soon after the separation of the Crocodile branch from the main stem. The modern Gavial type appears to have been developed about the same time, as the form was well established in the Upper Cretaceous genus, *Therapsosaurus*. The Telosaurian group, with biconcave vertebrae, evidently the parent stock of Crocodylians, became extinct with *Hypopsosaurus* of the same horizon, leaving the Crocodile and Gavial, with their more perfect procelonian vertebrae, to contend for the supremacy. In the early Eocene both of these types were abundant, but some of the Crocodyles possessed characters pointing toward the Alligators, which do not appear to have been completely differentiated until later.

Nothing is really known to-day of the early genealogy of the *Pterosauria*, but our American forms, without teeth, are clearly the last stage in their development before this peculiar group became extinct. The oldest European form, *Dimorphodon*, from the Lower Lias, had the entire jaws armed with teeth, and was provided with a long tail. The later genus (*Pterodactylus*) retained the teeth, but had essentially lost the tail; while *Rhamphorhynchus* had retained the elongated tail, but had lost the teeth from the fore part of both jaws. In the genus *Pteranodon* from the American Cretaceous, the teeth are entirely absent, and the tail is a mere rudiment. In the gradual loss of the teeth and tail, these reptiles followed the same path as Birds, and might thus seem to approach them as many have supposed. This resemblance, however, is only a superficial one, as a study of the more important characters of the Pterodactyls shows that they are an aberrant type of Reptiles, totally off the line through which the Birds were developed. The announcement made not long since in Europe, and accepted by some American authors that the *Pterosauria*, in consequence of certain points in their structure, were essentially Birds, is directly disproved by American specimens far more perfect than those on which the conclusion was based.

It is now generally admitted by biologists who have made a study of the vertebrates that Birds have come down to us through the Dinosaurs, and the close affinity of the latter with recent Struthionous Birds will hardly be questioned. The case amounts almost to a demonstration, if we compare, with Dinosaurs, their contemporaries, the Mesozoic Birds. The classes of Birds and Reptiles as now living are separated by a gulf so profound that a few years since it was cited by the opponents of evolution as the most important break in the animal series, and one which that doctrine could not bridge over. Since then, as Huxley has clearly shown, this gap has been virtually filled by the discovery of bird-like Reptiles and reptilian Birds. *Compsognathus* and *Archæopteryx* of the Old World, and *Ichthyornis* and *Hesperornis* of the New, are the stepping stones by which the evolutionist of to-day leads the doubting brother across the shallow remnant of the gulf once thought impassable.

(To be continued.)

For Forest and Stream and Rod and Gun.

ON THE SAUBLE.

I HAD often heard of the great sport incident to the pursuit and capture of the celebrated grayling, but had looked upon him as a sort of mythological specimen akin to the sea serpent or dolphin of old. I had heard of him as a bold, free biter, gamy as a trout, and of a flavor equal, if not superior, to his speckled congener. Among my acquaintances none had ever seen him, so I could get no light from that source. Taking down my "Fishing Tourist" and "Sportsman's Gazetteer," I gleaned a little information relative to *Thymallus tricolor*. I found that he existed nowhere in America, but in the northern part of the southern peninsula of Michigan, in the Mainstec, Au Sable, Muskegon, and a few smaller creeks and rivers. But that was a long way from home, and I never dared hope to match myself against this noble game fish. Be that as it may, when I received an invitation from a friend in Jackson, Mich., to join a party bound for Higgins' Lake and the Au Sable River, there to camp, rest, and try the realities of the grayling fishing, I dropped everything, and the 7th of August, 1877, found me en route for Jackson. Arriving at Jackson I found my friend awaiting me. A day of busy packing followed, and we were off via the Jackson,

Lansing and Saginaw and Mackinaw division of the Michigan Central Railway (through the courtesy of the superintendent we were provided a special car at a merely nominal cost). Our party consisted of about twenty-five ladies and gentlemen, and a marrier company one seldom sees. Give me young married people for real fun.

After leaving Bay City we were soon in the pine woods; past saw mills, lumber piles and rafts of logs we sped, getting occasional glimpses of burned tracts, where charred and blackened tree-trunks, standing naked and desolate, gave token of the terrible work of recent forest fires. The smoke hung in thick masses ahead of us, and soon we were plunging through a tract of burning woodland. The heat was intense; windows were dropped, and the curious who stood on the platform were only too glad to retreat within the cars. This was soon passed, and, emerging into the pleasant sunlight, the ladies insisted upon a ride on the pilot. In vain anxious young husbands dilated on the folly and danger incident to such a proceeding. So, under the careful guidance of the conductor, they enjoyed this novel way of riding, and with the exception of dishevelled tresses, an occasional grease spot and an uncomfortable ringing in the head, were none the worse for the experience.

Eighty-six miles from Bay City the station of Pere Cheney was reached. Here we were, indeed, in the heart of the wilderness. Long reaches of pine woods stretched away in every direction, the home of the deer and the bear. Our snorting, panting locomotive looked strangely out of place in the midst of this primeval solitude.

Cheney's consists of two hotels, a large saw-mill, a school house, a country store, and a number of dwelling houses. The place is new and situated on a gentle elevation, with pure, balsamic air. After an early supper we started in lumber wagons for Higgins' Lake, eight miles distant, arriving there at dusk. This is a lovely sheet of water seven miles in length by four in width, and is hemmed in on all sides by forests. Deer are plenty, and numbers of them are shot by fire hunting from a boat, as they come down to the lake to drink or to escape the torment of the fires. The lake strongly recommends itself to pleasure seekers and persons in quest of health. Its merits are complete isolation, fine springs, good perch and bass fishing, natural advantages for bathing, the water being perfectly clear and pure, while the bottom is the whitest sand. It is also safe for ladies and children to boat upon, being shallow for forty rods from shore. The balsamic odor of the pines and spruces, which one inhales at every respiration, is of great benefit to those suffering from pulmonary difficulties; and all through these extensive pineries may be found consumptives deriving benefit from this life-impregnated air.

A few happy days at Camp Jackson sufficed for W. and I, and so bidding the friends good-by one fine morning, we were off for the Au Sable—or, in the vernacular, Sauble. Retracing our old route through the forest we arrived at the station at noon, whence we again took the road which intersects the State road, seventeen miles from Cheney's. This latter crosses the peninsula east and west, from Lakes Michigan to Huron. Cheney's is undoubtedly the centre of all that region, taking in parts of Crawford and Roscommon counties, and will, I think, in time, become an important point of Michigan.

After a ten-mile drive over a gently rolling country, varied by alternate patches of woodland and open, we arrived at the cabin on the bank of the Au Sable, erected by Mr. Cheney for the accommodation of sportsmen. Here we were left in charge of that prince of guides and polemen, Mr. John Jenkins, called for short, Jack; and right here let me say to any one who contemplates visiting the Au Sable for fishing or hunting, that Jack's cabin is situated in the midst of the best grayling ground on the river, and near some of the best cross-ways for deer. Jack himself is a skillful poleman, hunter and cook; has a good dry cabin with comfortable bunks, staunch, well-made boats, and, best of all, he is not afraid of a wetting. This last is a great accomplishment for an Au Sable poleman, for when the boat, in shooting a rapid, becomes a trifle unmanageable, the alternative is for one to get out and draw the boat from the suction, or for all to get wet. Jack boasts that he "never ducked a man yet;" and with him to detach, you will seldom lose a leader.

The Au Sable at our cabin is a stream of perhaps thirty yards in width and averaging from one to six feet in depth, with a current like a mill race. Rapid follows rapid in quick succession, varied by an occasional swirling eddy where perhaps a fallen tree lies just far enough beneath the surface to show the jagged crests of its gnarled branches above the water, rising like a bristling *chevaux de frise*. It takes a quick and dextrous hand at the setting pole to pass these unseathed. I remember noticing a boat wedged tightly under one of these snags, where some poor *voyageur* had been spilled.

W. and I seated ourselves in the bow with rods, pipes and tobacco, and straw hats stuck full of flies, while Jack occupied the stern with setting pole and anchor, ready to land fish, adjust flies, impale hoppers or get out and wade, if such a thing need be to prevent a swamp. Pushing out into the current we were soon gliding down the river, when the rattling of the anchor chain and an admonitory "Now, boys!" from Jack, warned us that the time for our first cast had come. With a brown hackle and a snell baited with a kicking hopper whipped on our leaders, we cast. A rise, a strike, a little jerk to fasten him as we do the trout in New York, you know, and he was off; another and another cast, but with the same result. A few words of advice from Jack and we tried again. This time we had him sure, for by simply holding the rod stiff he firmly hooked himself the instant he struck the fly. How he did fight! How our reel did buzz and our nine-ounce rod bend under that frantic tugging! We were sure, as we played him back and forth, that he would go fifteen inches, but when we reeled him in all tired and submissive, and Jack lifted him out, imagine our surprise to find a fish only about eight inches in length.

Having learned the lesson we profited by it, and soon the well—a compartment in the centre of the boat having a hole in the bottom to let in the water—was a pretty sight. I never enjoyed such fishing; it was the acme of refined sport and equal to trout fishing every wail.

During our forenoon's fishing W. and I simultaneously got heavy strikes. So well did our captives use their "crowning glories" (dorsal fins) that against the heavy current we could hardly budge them. After playing them in the usual manner we reeled them in, when a cry from Jack, "You have both got dubs (doublets)," explained the heavy pull, and we each drew in a ten and a twelve inch grayling, both flies and grass-hoppers having been seized at the same instant.

So we angled until 3 P. M., and then came back to camp highly pleased with our first day's work among the grayling. Thus the happy days passed on; we were always successful and the sport never cloyed. So when we bid Jack and the little log cabin on the banks of the Au Sable farewell, and

rode through the quiet moorlit woods to Cheney's Station, it was with a feeling of regret and a firm resolve to repeat the trip, if possible, another year.

I found the most killing fly for August a brown hackle; but anything not too gaudy will do very well. To illustrate: Jack used a tuft of hair from the back of a "yaller dog," ornamented with a slip of sprucehcn feather to take off the curse, and it proved very taking. Grasshoppers abound along the banks and are about equal to a fly as a successful lure. I would advise a light, single-handed rod a trifle stiffer than the ordinary trout rod. Stranger, don't imagine you will find any worms up there; there are none smaller than a massassarag, and these are awful scarce, but very taking when you find them.

In all the accounts that have ever come under my notice relative to grayling angling, the advice is to proceed exactly the same as in trout fishing; but experience has taught me that in several essential points the method differs. Every fisherman knows that early morning and late in the afternoon is the time for trout. Not so with the grayling. In August 9 A. M. is early enough and 10 better. Then the small fish begin to rise, the larger ones coming later as the day wears on, until between twelve and one the largest are biting, and the sport is at its height. Again, when a trout takes the fly or bait, owing to the hardness of his mouth, it is necessary to strike him hard with a turn of the wrist to fasten the hook. On the contrary, when the grayling, whose mouth is small, tender and sensitive, strikes the fly, he is fairly hooked. Then keep a gentle strain on, never letting up or allowing any slack until the landing net is under him. It is better to fish down stream, whether in a boat or wading, as in the rapid current of the Au Sable it allows of a better cast. The grayling is not so wary as the trout—the little disturbance one makes in wading or poling amounts to nothing. A good trout fisherman, unacquainted with the habits of the grayling and attempting to fish in the Au Sable, would err in his selection of the favorable spots for a cast. I found by experience that the deep shady pools and whirling eddies were not the haunts of the grayling, but in the rapids and long sunny reaches of semi-rapid water, there he may lie ready to take the tempting lure.

The most effectual way when one wishes to kill a large number of fish is to wade, but it is hard work and wet work; and, as you have no earthly use for more than you can eat, and have no way to keep them alive as you do when fishing from a boat, the latter way is far preferable.

Eastern sportsmen desiring to take this trip will find August the best month for grayling. Take Great Western Railway to Detroit, Michigan Central to Bay City, thence north eighty-six miles by Mackinaw Division Michigan Central Railway to Cheney's, where you will find Mr. Cheney always ready with teams to take you to the river, and at the cabin door Mr. John Jenkins will stand with open arms and a fried grayling. Both these gentlemen are very moderate in their charges, and a fortnight may here be enjoyed that will beat all past experiences in fishing. Deer are very plenty along the Au Sable, and in season much sport may be had in their pursuit. Jack has a good dog and knows all the runways, and many a tale did he unfold to our admiring ears of how he shot this or that buck. There are a few mosquitoes and punkies along the river, but not enough to inconvenience one. Write to G. M. Cheney, Pere Cheney, Crawford Co., Mich., or John Jenkins, Esq., same address, for all information, and when you go, you are sure of game and fish in abundance and a jolly good time. H. W. D. L.

#### THE DUCK PASSES OF SHAKOPEE.

OF the many "passes," the largest one in point of game, known as the "Big Fly," is situated about three miles below the city of Shakopee, on the north side of the Minnesota River, and is easy of access by either land or water. It is a narrow neck of meadow bottom, dry at all times in the ducking season, and situated between two very long rice lakes. The grass on this meadow is cut in due season and stacked on the highest ridges or near a creek—Murphy's creek coming out of the easterly end of the westward lake. These haystacks generally serve the duck hunter as blinds or shelter.

About the latter part of September and through October the feathered game occupy these rice lakes in large numbers, passing over this strip of land from one to the other, in almost continual flight. On Saturday evenings when the railroad shops and foundries are closed, this pass is well occupied by machinists and laborers, who keep up a continuous fusillade until dark, that would almost lead a stranger to believe that the Chippeway and Sioux Indians were fighting another battle on this, their historic ground. Their last engagement on this ground was some fifteen years ago, when a large number of either tribe was wiped out. Quite a number of citizens witnessed this frightful butchery, even contributing powder and ball to the Sioux and taking care of their wounded. To describe the flight of ducks on a cloudy evening during the latter part of October, when they gather together in great numbers preparing to leave for a warmer climate, would be something beyond the power of my pen; it is simply immense. Thousands of birds are on the wing, flying mostly in an easterly direction; and later, as the day-light begins to fade into the gray of the evening, one would think from the terrific flights that the birds were aiming at the hunters heads, for often we have to "duck" our heads to escape being knocked over. Standing near the west end of the eastern lake, the ducks begin to drop in their flight, frequently flying so low that the dogs bound into the air to catch the birds. Every one who has spent an evening at this pass has expressed astonishment at the number of ducks on the wing, which in appearance resemble rather the flight of wild pigeons. I have shot on this pass for five years, and have bagged as many as thirty-seven black headed ducks in an hour. Very often we get a good flight of mallards mixed with spoon bills, and it is the sportsman's delight to bring to the ground these fat and plump birds; sometimes they fall so hard that they rebound many feet in the air.

Sportsmen from St. Paul, who frequent these passes, often fill a light buggy box full of ducks in a couple of hours' shooting. But the most successful days are when the Indians arc on the lakes with their canoes, gathering rice or shooting, fo

then the birds keep up a continual flight, and, in their confusion, huddle so closely together that it seems almost murder to shoot them.

Occasionally a good flight of geese and brant is seen also a species of duck which is here called the "canvas back," as it resembles that famous Chesapeake duck in all but the bill, which is narrow and of a grayish color.

Stemmer's Pass is next best to the Big Fly, and is situated about five miles below the city, on the same side of the river with it and in close proximity to the Bloomington Crossing—a flag station on the St. P. and S. C. R. R.—and is in high favor with the St. Paul sportsmen, as it is easy of access from the city by a good road over the level prairie. This pass is named after the owner of the premises, a very kind old Deutscher gentleman, who delights to entertain visitors, and throws his shooting grounds open to all comers.

The next in prominence are the famous Bloomington Lake passes, eight miles distant and reaching as far down as Hamilton Station; and, last, but not least, is the Little Fly, within a mile and a half from our city, on the north side of the river. Many of our citizens frequent this place on account of its close proximity to town, and a great many birds are bagged on favorable evenings, and he that has a staunch retriever obtains the greatest number of birds, as they usually fall into places inaccessible to man. The prospect for shooting this season is excellent, as we have had an almost continual drought, drying up all the smaller lakes and ponds—except those mentioned which are fed from innumerable springs situated at the foot of the Eden Prairie ridge. Ducks of all descriptions have been hatched here in large numbers, and the shooting season will open in a few days. The season for prairie chickens is in full blast, and carloads go by here on both the railroads coming from the Glencoe prairie by way of the Hastings and Dacotah R. R., and the big western prairies near St. James and Madelia on the St. P. & S. C. R. R. A couple of St. Paul sporting gentlemen were shooting on this latter road as far as Iowa lately, and attempted to ship their birds—some 275 in number—across the State line into our State, contrary to the statutes made and provided, and against the peace and dignity of the State of Iowa, which prohibits said shipment except at the rate of five dollars for each and every bird so shipped. They compromised the matter for a round thousand dollars.

Shakopee, Minn., Aug. 23, 1877.

RUSTIOUS.

#### SPLIT BAMBOO RODS.

To Our Customers and the Public: In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

### Fish Culture.

LETTER FROM SETH GREEN.—Rochester, Aug. 29.—I wish to caution people against drawing off old mill ponds during warm weather, or at any other time, unless they draw them off very slowly. If the gates are hoisted and the water comes down with a rush, it will kill all the fish for a half mile down the stream. It stirs up all the old decayed stuff in the stream, and is death to everything in the water below for a long distance. Last week the State Ponds at Caledonia came near losing all their breeding fish. The head of the stream is about one mile above the ponds. Half of the water comes out of the ground at the head of the stream and a dam was put across the creek, sixty years ago, about forty rods from the spring, making a pond of several acres. It is full of moss and all sorts of animalcules. Last week, the owner of the pond opened the gates and let the water down with a rush. It killed all the trout in the stream for a half mile below, and if it had not been for many large springs coming in on both sides of the creek, all the trout in the stream and ponds would have been killed; and it would take many years to restock the ponds as they are now. We have a large stock of brook trout that we use for breeders for stocking the waters of this State. We have the following kinds that we have raised from the egg: A great many salmon trout, some of them weighing nine pounds; we have a large number of California salmon, from one to three years old—the largest weighing one pound; Kennebec salmon from one to five years old, the largest weighing two and one-half pounds; California brook trout, two years old, the largest weighing one-half pound. We have grayling two years old, of our own raising, that are one foot long. We have a hybrid, a cross between the California salmon and brook trout, which is one and a half years old, and five inches long. We have also a cross between a salmon trout and a whitefish. We have eighteen ponds well filled with the above different kinds of fish, besides many boxes and troughs filled with the young. SETH GREEN.

WHAT'S IN AN OYSTER.—Apropos of the advent of the oyster, the Cape Ann Advertiser has been looking at our gnatatory friend through a microscope:

Open an oyster, retain the liquor in the lower or deep shell, and if viewed through a microscope, it will be found to contain multitudes of small oysters, covered with shells and swimming nimbly about—one hundred and twenty of which extend but an inch. Besides these oysters, the liquor contains a variety of animalcules and pyramids of three distinct species of parasites. Sometimes their light represents a bluish star about the centre of the shell, which will be beautifully luminous in a dark room.

CALIFORNIA SHAD.—The waters of California were stocked with shad by Seth Green in 1871. The law prohibiting their capture expires the 3d of next December, and there is every indication that there will be a very large return for the outlay incurred on their introduction. Many shad have been accidentally taken in salmon traps and nets, the number thus captured being estimated as more than a thousand. The California Fish Commissioners have requested of Prof. Baird another consignment of 100,000 to be sent at the expense of the State.

MANCHESTER, N. H., Sept. 1, 1877.

EDITOR FOREST AND STREAM:

Illness has prevented me for a month from writing you a short sketch of the progress of fish culture in New Hampshire, and I fear my notes may be some of them stale, but they may be of interest to some of your readers. On the 16th of July my colleague Powers and I, accompanied by Mr. E. B. Hodge, of Plymouth, N. H., visited the hatching pond of Mr. Tomkinson, at Livermore's Falls, on the Pemigewasset, about four miles above Plymouth, to ascertain if it would be a suitable site for a State Hatching House for salmon, the Legislature at its late session having made an appropriation of \$1,000 for building such a house, and the Mass. Commissioners having agreed to join us in the matter and bear half the expenses, for the purpose of restocking the Merrimac and Connecticut rivers with this noble fish. We had also another object in view, viz., to ascertain the presence of the young salmon placed in the river in the summer of '76, from the Penobscot ova obtained in the autumn of '75. This was soon decided, as it took Mr. Hodge but a very short time to land half a dozen lively young fellows between four and five inches long, and one or two somewhat longer, who were soon returned uninjured to the river and sent off rejoicing. The next day Powers went with me up the B. C. & M. R. R. thirty miles to Warren, on the Bakus River branch, where he soon established the fact that, as the boys say, "the river was full of them." We also looked at some springs there, but decided that Livermore's Falls was the better place, and on the 7th of August Messrs. Powers and Hayes, accompanied by Commissioners Brackett and French, of Mass., visited the spot, confirmed our decision, and secured on favorable terms from Mr. Tomkinson, a ten-years' lease of the Springs with all the necessary land for the hatching house, pond, etc., etc., and contracted for the immediate erection of a hatching house, so as to use it this autumn for hatching 400,000 California Salmon, which Prof. Baird has kindly promised to the two States of Massachusetts and New Hampshire, and 20,000 land locked salmon which we also expect from Maine through his kindness. We shall also follow Seth Green's example, and hatch all the brook trout we can for distribution to our sadly depleted streams, which ignorant and selfish fellows calling themselves sportsmen are fast depopulating. What do you say to Mr. Hodge's solemn statement that he weighed a basket of 200 trout brought in to Plymouth this summer, and found the weight just three pounds! Had there been eight less of them, or 192 trout, they would have scaled just  $\frac{1}{4}$  ounce each! Do you wonder that our streams are cleaned out?

We propose to give our whole attention to the Merrimac River at present, until the fishways at Holyoke and Turners Falls are made passable. The Holyoke fishway is a failure, because its mouth is too far down stream where the fish cannot find it, and it has got to be cut off in the middle and bent back to the foot of the dam—as has been done at Lawrence—before it will be of any use. The Lawrence fishway is all right, and by enlarging the openings of the Foster fishway at Amoskeag Falls, we have made it passable so that many large salmon have been seen this summer away up in the Pemigewasset. A friend of mine saw five lying side by side under the bridge at Plymouth, three weeks since, and they have been seen jumping Livermore's Falls, where we propose to put our pond. We shall build a new Brackett fishway at Amoskeag before next season, so as to be as perfect as possible.

Meanwhile we have not been idle in other directions. Messrs. Hays and Powers have transplanted a number of black bass from Sunapee Lake and Wakefield Pond, where they have bred very rapidly, to other waters in the State; and the last week in July Mr. Powers and I took 200,000 shad from Holyoke to the Upper Merrimac in two successive trips, placing 100,000 in the Winnepesaukee River, just above Tilton, and 100,000 in the Contoocook River in Hopkinton with but a very slight loss in transportation. My son, Mr. S. S. Webber, met us at Charlestown, N. H., where he was visiting, with a fresh relay of ice, so that, in spite of the heat, we were able to keep our water at about 67 deg. the whole trip.

We succeeded in getting a commission authorized by the Legislature and appointed by the Governor in July to act with us in preparing a new code of game and fish laws this winter, to be submitted to the next Legislature, and hope to get something nearly right, as the commission are all good sportsmen, while two of them are keen lawyers, and the third is a member of the Governor's council. "So much for Buckingham!"—I have no doubt you will say "Off with his head," for I have spun out my yarn unwittingly.

Yours very truly,

SAM. WEBBER.

NEVADA.—There is great mortality among the fish in the Carson River.

CALIFORNIA.—The Sacramento Fish Commissioners have instituted prosecution against the salmon fishermen for wholesale violation of the fish laws.

Natural History.

CRAWFISH.

THE habits of the crawfish (*Astacus*) differ somewhat with the species. For instance, those found in Canada and the Northeastern States (*A. bartonii*) prefer stony brooks, where they love to hide during the day, as I think they are all more or less nocturnal, while the *A. mississippiensis* of the Western States burrows vertically as well as laterally, and builds a cylinder or well on top of the ground, often ten inches high, where it ascends during a rise of the water, which it likes to leave at times. I have seen these mounds or burrows on the rolling prairies of Kansas, five miles from any visible stream; and it is well known to the frontiersmen that in digging a well it is safe to follow a crawfish hole down, as it is believed that they come up from an underground stream or stratum of water, instead of crawling over the prairie and burrowing down. This species is larger than the other, often measuring four and a half inches, while *A. bartonii* seldom if ever exceeds three. They breed much as the lobsters do; i. e., the female carries the eggs in the appendages under her tail until they hatch, but differing from the lobster in the young undergoing no metamorphosis as most other decapods do. The sexes are distinct, and differ in the structure of the abdominal appendages, the first pair being soft in the female, who also has the genital orifices at the basis of the middle pair of legs, while those of the male are at the basis of the last pair. I noticed in some eggs that I hatched this year that the embryo was coiled in the egg with the ventral outward, and the yolk or umbilicus appeared to be behind, but was called away and did not complete the observations, as they were all hatched on returning.

They are great nuisances about fish ponds, especially in clay, where their burrow never closes, but remains a permanent drain. Dams and bridges have been destroyed by their undermining, and why your correspondent wishes to introduce them I do not know, unless for the table. They are good boiled or made into a salad, and I often eat them when opportunity occurs to get a quantity of sufficient size. If this is the object, perhaps the Oregon species (*A. oregonus* or *A. trochiloides*) would be preferable, as they are the largest, I think, of the fresh water forms. One found in the Columbia River is said to have grown to the length of eight inches. They are excellent bait for some fishes—the basses, etc. The name is sometimes spelled crayfish, and according to Webster, "Is corrupted from O. H. German—*krebbe*, now *krebs*; or from French, *crevice*, which is itself derived from *krebiz*," and in many places in the interior, notably parts of western New York, Illinois and Indiana, they are locally known as crabs. Dams have been successfully protected from them by using with saw-dust, or, better yet, spent tan bark, which settles down and fills the hole as fast as made.

FRED. MATHER.

A WAR WITH BATS.—A curious story comes from Dog Prairie, St. Charles county, concerning the manner in which the house of Mr. T. J. McAtee has recently become infested with bats. McAtee lives in a double log house. His attention was first directed to the neighborhood of his front gate, at which point he heard innumerable flitting noises like a storm in the distance. He saw what at first he took to be a black cloud approaching, but as it got nearer he realized that it was a horde of bats. As the swarm neared the house it lowered, and McAtee instinctively retreated from the formidable enemy, rushed through the front door, closed the shutter and lowered the window sashes. A considerable number found entrance into the room, and McAtee and a hired man succeeded in killing about one hundred. On the outside could be heard a tremendous commotion, as if the bats were swarming and fighting among themselves. McAtee went through the back door into the back yard and around to the south side of the house, where the horde had congregated. The scene at the window is described by him to have been of the most extraordinary character. The air was filled with myriads of bats, flying and circling about in all directions and darting against each other with audible force. A huge and writhing mass had settled on the window sill, and the entire frame as well as the wooden part of the sash was covered with them. The weather boarding for at least five feet on each side of the window and from the lower logs to the top of the house was covered with the black throng. A bright light shone through the window panes and everything on the outside was plainly visible. Though the greater part of the invaders showed a preference for this window, a general inspection showed that they were distributed over the entire premises. Every outhouse on the place was either invaded or surrounded. In the stable, where three horses were munching their evening oats, there was a dread pawing and whinnying, and an examination revealed the fact that every stall and trough was infested with bats, and McAtee deemed it a matter of prudence to turn the horses loose in the pasture. The dogs—of which there were six on the place—went around howling in dismay at the strange spectacle.

Overcome and confused by this phenomenal visitation, McAtee finally conceived a plan which resulted in the capture and death of a very large number of them. The window sash was raised, and thousands rushed in, and in five minutes there was not a vacant spot on ceiling, wall, floor, table, bedpost, bureau or chair. The window was then closed, and McAtee and his hired man began the work of destruction. The two men were armed with ax helves, and they made fearful havoc among the foe. The slaughter continued an hour and a half. The result, by actual count, was 4,103 dead bats, and their carcasses filled a large barrel which holds over five bushels. Though this onslaught greatly diminished the number of invaders there were still hundreds, and perhaps thousands, of them left, though, owing to the darkness, it was found impracticable to make further war on them. Next morning when McAtee awoke not a bat was to be seen, all the survivors having disappeared as mysteriously as they came.

It seems, however, that the bats were determined to make McAtee's house their haunt, and the following night they swarmed as formidably as on their first visit, and over three thousand were killed. They still persist in coming, and up to this time there have been upward of seventeen thousand slain, and, though there is a visible and gratifying falling off in the number of invaders, they yet infest the premises in sufficient numbers to be very troublesome. It is believed that they come from an immense thicket about ten miles up the Missouri River, where they breed in countless quantities. It is known that this thicket or swamp is thickly infested with them, and still hunters have often found them so numerous in certain spots that they could not make headway without great annoyance. McAtee considers the visitation a serious calamity, and is carrying on a relentless war of extermination. The invading bat is of the common insectivorous species, quadrupedal and with a body much like that of a mouse. The story is certainly an extraordinary one, and its truth is vouched for by several reliable witnesses.—*St. Louis Globe Democrat*, Sept. 3.

A JAPANESE IN THE AQUARIUM.—A young Japanese student who has been visiting the New York Aquarium describes his visit in a letter to the *Tokio Times*, July 28. He says:

"But that which interested me personally was the beautiful three-tailed gold fish, solitary, but in his glory, with this label on his tank: 'The three-tailed Kingyo—Japan. Offered \$2,000.' You know what kind I mean. I should think it was a very fine specimen of our Kingyo. Its body was not more than two inches long, and was beautifully colored, white and red; but its tail, in three branches, was near four inches long. Is it strange that I felt a sort of kinship existing between me and this lonely creature on that spot? I was at once reminded of Bayard Taylor's experience with the lion at the Central Park Menagerie. I brought my face close to the tank and whispered in Japanese, 'Ohayau, Mr. Kingyo,' when, lo and behold, Mr. Kingyo made straight to my face, and to me seemed to make signs of recognition at me. Perhaps it was only my nose he recognized, and took it for a remarkably inviting bait; and to say the truth, he did nibble affectionately and most eagerly at that organ through the thick partition of the glass tank."

ORTOLANS.—Your special correspondent, under date, Washington, Aug. 10th, in writing of rail shooting, speaks of those birds as ortolans. Why is this? I have supposed the ortolan (*Emberiza hortulana*) belongs to the Bunting family, and was not aware that this species (ortolan) inhabits this country. As their name indicates, they are not a marsh bird, but whose characteristics are quite the reverse of those of the rail family. If in this, however, I am in error, I shall be glad to be set aright. Again, he says, "I feed birds, unlike the ortolan, seldom penetrate into the interior of this country." I am sure your correspondent, upon further inquiry, will find that they quite commonly penetrate the whole interior of this country. I have seen them upon our Nebraska prairies quite frequently during the past ten or twelve years, and they gather in flocks here before starting South, in autumn—the same as I observed them in Vermont 25 years ago. Yours truly,

Omaha, Aug. 21, 1877. B. E. B. KENNEDY.

[The above writer evidently confounds the bobolink (*Dolichonyx oryzivorus*) with sora rail, or ortolan (*Porzana carolina*). The sora rail we have frequently met on the prairies of Nebraska.—Ed.]

DO FISHES HEAR?—Apropos of this question, which has already been discussed in *FOREST AND STREAM*, the experience of Mr. Frank Hale, of Pigeon Cove, Mass., is interesting, as told by the *Cape Ann Advertiser*:

Mr. Hale, often visited the brook at the rear of his lot and found that articles of food thrown in were eagerly consumed by some eels that inhabited it. Daily feeding the eels established a friendly acquaintance, so that they in time fed directly out of his hand. Lately, the friendship is so cordial on their part, that when he approaches the brook and makes a sort of whistling noise to call them, they swim briskly up from their haunt down stream, come to his hand held in the water, fondle and play lovingly around his fingers, and eat gratefully and very heartily, too, of the fish and mackerel he brings them: one large one, fully two feet long, and very large around and heavy; two smaller ones, who joined the happy family since the old one began the acquaintance; and one a little younger, who has come in only lately. The old one is so sociable that he allows Mr. H. to lift him quite out of the water, play with him, passing his slippery form from hand to hand very freely. How much farther this singular acquaintance may be carried does not yet appear. What subtle link of Darwinian kind there may be between eels and humans we shall perhaps know by-and-by.

DISGUST.—A writer in the *Revue des Deux Mondes* says that disgust, on ultimate analysis, will be found to be an instinctive sentiment of protection, varying with species, and with the alimentation, habits and education of individuals. It is in consequence of the hereditary instinct which has apprised our ancestors that certain animals and substances might be dangerous for us. He points out that disgust sometimes attaches to the total form of objects, and may diminish and become extinct as scientific analysis disjoins the parts of the repugnant whole. Thus a spider, viewed as a whole, is a repulsive creature; but take a leg or an eye of it and study in the microscope the marvelous arrangement of those organs, and the sight will awaken admiration instead of disgust. Again, habit is evidently an important factor in feelings of disgust. To eat frogs or snails is repugnant to us, yet we eat without disgust such things as black pudding, tripe, liver, high game and decayed cheese. The aversion to horse flesh is not readily accounted for, except by habit.

—Immense flocks of swallows hawk a little copse in West-cry. Hundreds of thousands of these birds gather, filling the air and confusing the mind with their twittering. They come singly, in pairs, by the score, in hundreds, and even in flocks of thousands, until there seems to be no room in the air for more. All at once, as if by magic, they shoot into the copse and disappear. It is really a wonderful sight. Westerly people visit the place every evening, and many come over even from Watch Hill and Stonington to witness the singular phenomenon. They have been known to gather there for a number of years, but in numbers they excel this year.—*Providence Journal*.

—A French ornithologist has taken the trouble to find out at what hour during the summer the commonest small birds wake up and begin to sing. The result of his inquiry shows that the earliest riser of all is the greenfinch, who tunes up at about half past 1 A. M., some hours before the more robust and melodious species of finches are ready for work. The second to put in an appearance is the blackcap, who is to be heard at half past 2, or thereabouts; and half an hour later the quail makes his first attempt at a musical performance. It is nearly 4 o'clock, and the sun is well above the horizon, before the first real songster appears in the person of the blackbird, who precedes the thrush about half an hour, and the chirp of the robin is about the same length of time before that of the wren. Finally, the house sparrow and the tom tit occupy the last place on the list.

TORTOISES AS WEATHER INDICATORS.—If there be any truth in a paper read by a French savant at a recent meeting of the Academy of Sciences in Paris, every well-regulated household should have one or more tortoises about the premises. According to M. Bouchard, tortoises take extraordinary precautions against cold weather. Their instinct tells them in the milder seasons when the thermometer is likely to fall to freezing point, and toward the end of autumn warns them also of the approach of winter. In both cases they take precaution to screen themselves from cold, and by carefully observing them, M. Bouchard has for years been enabled to regulate his household. At the end of autumn, when the winter threatens to be severe, tortoises creep deep into the earth, so as to completely conceal themselves from view. If, on the contrary, the winter promises to be mild, they scarcely go down an inch or two, just enough to protect the openings of their shells. Last January, which was so mild, they even went about. Last month, the thermometer standing at 50 deg. Fahrenheit, our author saw his tortoises creep into the ground, and that very night the glass fell to 28 deg. Fahrenheit. On the 1st inst., the mercury being at 110 deg. Fahrenheit in the sun, one of the tortoises hid itself; on the following morning there was hoar frost.

—The Mt. Sterling, Pa., *Democrat* says: A large rattlesnake was killed in Breathitt county, a few days ago, that proved to be quite a curiosity. It was perfectly formed, save it had two well-developed necks and heads. The prongs of the necks were about four inches long, and the snake used both heads at the same time, striking with both and thrusting out its tongues in a spiteful manner, and had the appearance of two snakes—so much so that the parties who killed it did not discover the deformity until his snakeship was dead. We give Judge E. C. Strong, of Breathitt, as authority for the above, and he says it can be substantiated by a dozen good witnesses.

—The sea lion in the Coney Island Aquarium was taken sick a few days ago. How to relieve his ailments was a question that puzzled his keeper. The following device was finally adopted: A fresh herring was procured and cleansed, it was then filled with castor oil. When it was thrown into the tank, the sea lion seized and swallowed it in a second, and has recovered his wonted good health, and is now as noisy as ever.

ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDEN DURING WEEK ENDING TUESDAY, SEPT. 4, 1877.—One night heron (*Nycticorax gardeni*), presented; two gopher tortoises (*Pseudemys carolina*), presented; one alligator (*Alligator mississippiensis*), presented; one great horned owl (*Bubo virginianus*), presented; one llama (*Lama peruviana*), born in garden; one diamond rattlesnake (*Crotalus adamantus*), presented; two chicken snakes (*Ophibolus getulus*), presented; one black snake (*Boscawan constrictor*), presented; two glass snakes (*Ophoeocercus ventralis*), presented; two alligators (*A. mississippiensis*), purchased; twenty-three gray lizards (*S. undulatus*), purchased; seven chameleons (*A. princeps*), purchased; one whip snake (*M. flagelliformis*), purchased; one green snake (*Cycolophis vernalis*) purchased.

ARTHUR E. BROWN, Gen'l Supt.

ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDENS FOR WEEK ENDING TUESDAY, SEPT. 11.—One raccoon, *Procyon lotor*, presented; one gray fox, *Vulpes virginianus*, do; three canary birds, presented; two laughing gulls, *Larus atricilla*, presented; one woodcock, *Arctopus monax*, presented; twenty-four gray lizards, *Sceloporus undulatus*, purchased; fourteen chameleons, *Anolis princeps*, do.

ARTHUR E. BROWN.

—Camp's automatic cartridge loader is an invention that must commend itself to sportsmen. Two receivers are filled, one with powder, the other with shot, and they deliver the charges to each shell as desired, only three motions being required to load. Try it.—*See adv.*

Woodland, Farm and Garden.

EFFECTS OF AUTUMN FOLIAGE.

NOW that the season is well advanced, and summer merges into autumn's lap, and the gorgeous fall tints of our trees and shrubs develop more and more every day, it would be well for those interested in beautifying their country homes to study well the effects of this coloring, and, when possible, have their trees so planted in future that a flower garden, as it were, will be presented to the eye long after the flowers themselves have faded. Last season we saw a country seat, planted some years since with special reference to this idea, and now that the selected specimens have grown and rounded the various groups into perfect fullness, the exquisite blending and contrast of colors may well be termed surprisingly beautiful. The scarlet of the Scarlet Oak, the yellow of the Sassafras, the crimson of the Liquid Amber or Gum Tree and Pepperidge, the orange of the Red Maple and Sugar Maple in one group will be, in these later days, almost dazzling, and then to heighten the effect, if that were possible, the American Ivy, with its brilliant festoons of crimson leaves, and the green Briar with its golden-yellow foliage will twine

about and festoon all the undergrowth and branches. This is but one illustration of what has been done, and the grounds which it brightens and beautifies contain many other groupings of similar character. Native plants have not been excluded simply because they fail to possess the merit of rarity, but even the every day and common Sumach is to be seen in groups and singly, wherever its bright scarlet tints can be made tributary to the general effect. Probably no one species presents such a diversity of color as the Red or Swamp Maple (*Acer rubrum*). On one leaf we have before now been able to trace ten distinct colors and shades, and all in such harmonious combinations as to create the impression of a direct and special design. There are also many of our common native shrubs that can be made objects of beauty by the display of a little taste in planting them. As, for instance, the wild Blackberry with the deepest shade of crimson on its autumn foliage. Examples might be multiplied, but enough has been said to illustrate our idea of a neglected phase in landscape adornment. Now is the time to note all the varying tints for more practical use hereafter, and if the subject receive the attention to which its merits entitle it, the time will come when our foreign visitors will have no occasion to repeat what is still a frequent question, "Why do you not make use of the most beautiful feature of your forests?"

We have heard so much of late years of the quantity of plants and flowers used for decoration at some of the large parties and balls given by some of our millionaires, and the following paragraph from the *Gardener's Chronicle*, London, will exemplify how they do it in England:

We are informed that at a ball in Belgrave Square on the 9th ult. Mr. Wills supplied and arranged in one day 59 large Palms, *Draecenas*, etc., from 12 to 20 feet high, including many splendid specimens of *Cocos flexuosa*, 15 feet high; 60 Palms, from 6 to 15 feet high; 188 various Palms and foliage plants, from 4 to 10 feet high; 1 extra large *Scaevola elegans*, 25 feet high; 202 foliage plants and Palms, from 3 to 6 feet high; 10 large *Phormium tenax*, 6 by 10 feet; 107 plants of Wills' new hybrid *Draecenas*, from 3 to 5 feet; 72 large Ferns, from 3 to 7 feet high; 84 *Cyperus*, various, 688 Creeping Jenny (*Lysimachia*), 2,880 *Lycopodium denticulatum*, 84 handsome foliated *Begonias*, 209 *Adiantum cuneatum*, 109 *A. farleyense*, 50 *Sedums*, 50 *Panicum variegatum*, 60 large *Ivies* in pots, 10 feet high, 20 *Cocos Weddelliana* for centre of refreshment tables; 1416 choice flowering plants, 150 handsome *Liliums* (specimens), 72 *Crassula coccinea* (specimens), 48 choice *Orchids*, etc., 72 *Isolepis gracilis*, 72 *Tradescantias*, 150 various creeping and trailing plants; total, 7271 plants, 72 spikes—*Tuberoseas*, handsome; 6500 cut *Roses*, *Stephanotis*, cut *Orchids*, etc., 22 tons clear block ice, 5 tons of *Derbyshire spar*, 1 ton of virgin cork bark, 4 vanloads of green moss (equal to 1200 bunches). Large grottos were constructed, water for fountains, waterfalls, etc., laid on. The total cost of the above considerably exceeded £1,000. Thus it will be seen that the cost of such entertainments has been much underrated by the general press. Of the taste and good sense that prompts such lavish expenditure we say nothing.

J. R.—Many thanks. Your asters are very fair, but not up to the mark. They look as if more liberal watering would have improved them.

J. D.—*Dionaea muscipula* (Venus' fly-trap) can be had from any of our principal nurserymen. As it goes to rest in the winter season it will do little good with you till toward spring.

P. W.—The yellow flower is *Solidago altissima*, a very beautiful and striking species. The purple one, *Vernonia novboracensis* or *Iron weed*, and the pinkish one with the strong camphor scent, *Pleuchea camphorata*, the latter you must have gathered in a salt meadow. Please number them in future.—Ed.]

WESTERN FLORA.—The party of scientists, among whom are Professor Asa Gray, of Harvard College and Sir Joseph D. Hooker, of Europe, who have been making special scientific explorations in Kansas, Colorado, Wyoming and Nevada, have collected over 600 species of plants. The botanical results of the expedition are to be embodied in the report of Professor Hayden's survey.

THE IVY GREEN.—A slip of the English ivy, the original slip of which was taken from off Shakespeare's grave, has been planted before the front wall of the Sufield, Conn., Episcopal Church.

—The Entomological Commissioners who were sent out West by the Government say there need be no fear of grasshoppers this year.

—There is a sunflower in Adrian, Mich., the stalk of which is 11 feet 8 inches high and 11 inches in circumference, and bears 99 blossoms.—*Ex.*

—A large mushroom is said to have forced its way through twelve inches of concrete covered with a thick layer of asphalt in the floor of the Savings Bank Department of the General Post Office in London.

—Peck & Snyder have issued a complete Archery Manual, giving full directions as to the use of the long bow, etc. At their house in Nassau street will be found a full line of sporting goods.

## Sea and River Fishing.

### FISH IN SEASON IN SEPTEMBER.

#### FRESH WATER.

Trout, *Salmo fontinalis*,  
Salmon, *Salmo salar*,  
Salmon Trout, *Salmo confinis*,  
Land-locked Salmon, *Salmo gairdneri*,  
Grayling, *Thymallus tricolar*,  
Black Bass, *Micropterus salmoides*,  
*M. nigricans*,  
Mascallone, *Esox nubilus*,  
Pike or Pickerel, *Esox lucius*,  
Yellow Perch, *Perca flavescens*.

#### SALT WATER.

Sea Bass, *Sciaenops ocellatus*,  
Sheepshead, *Archosargus probatocephalus*,  
Striped Bass, *Morone tinnedus*,  
White Perch, *Morone americana*,  
Weakfish, *Cynoscion regalis*,  
Bluefish, *Pomatomus saltatrix*,  
Spanish Mackerel, *Cybium maculatum*,  
Cero, *Cyprum regale*,  
Bonito, *Sarda sarda*,  
Kingfish, *Menticirrhus nebulosus*.

FISH IN MARKET.—Owing to the severe storms of the past week, the stalls do not present such an appearance of plenty as marked them a short time ago. Our quotations are:

Striped bass, 18 to 25 cents per pound; smelts, 25 cents; bluefish, 10 cents; salmon, frozen, 30 cents; mackerel, 15 cents; weakfish, 15 cents; Spanish mackerel, 20 cents; green turtle, 15 cents; terrapin, \$15; halibut, 15 cents; haddock, 6 cents; king-fish, 25 cents; codfish, 8 cents; black-fish, 15 cents; flounders, 8 to 10 cents; sea bass, 18 cents; eels, 18 cents; lobsters, 8 cents; scallops, \$1.75 per gal.; soft clams, 30 to 60 cents per 100; Salmon trout, 18 cents; sheepshead, 25 cents; whitefish, 15 cents; hard shell crabs, \$3.50 per 100; soft crabs, \$1.50 per dozen.

MR. KINCO HOUSE, *Moosehead Lake*, Sept. 5.—The September fishing provinces to be unusually fine this year. I took four trout in North Bay yesterday, aggregating ten and a half pounds. The Kinco House was never better patronized.

MONSTER TURTLE.—As Dr. Walton and the Rev. Mr. Hazlewood were returning to the city from a yachting cruise, they saw an enormous sea turtle swimming near Naskeag Point. Three men got a rope attached to him, but instead of being able to pull the prize ashore it could easily pull them to the water, and after making their rope fast to a tree they awaited the going down of the tide, which left him high and dry. The doctor made the following measurements. From tip of nose to the tail, 8 feet; between the tips of the flippers, 11 feet; length of shell, 5 feet 7 inches; width of shell, 4 feet 6 inches; length of flipper, 3 feet 6 inches; weight of flippers 40 pounds; weight of head, 25 pounds. The doctor estimates, the total weight at 800 pounds. The turtle proved to be blind, his eyes having been put out with charges of buck-shot, which he had received at some time. The fact of his being blind is supposed to be one of the causes of his straying so far from the usual haunts of turtles of his kind. It is evidently the largest turtle ever captured on the coast of Maine.—*Bangor Whig*.

NEW HAMPSHIRE—*White Mountains*.—"Josh Billings," who has been a guest at the Glen House this summer has fished every day while there. His catches are large in number—200 one day and 400 another—of weight there is no record.

*Ferrisburg, Vt.*, Sept. 10.—Pike, perch and bass fishing very fair at the present time.

MASSACHUSETTS—*New Bedford*, Sept. 7.—The bass fishermen have been very successful the past ten days, especially at No Man's Land, where some thirty have been caught, the largest scoring sixty-seven pounds. At Cuttyhunk and south side of Martha's Vineyard also good catches have been reported; fishing at Cuttyhunk has previously been very poor.

COXONA.

MOVEMENTS OF THE FISHING FLEET.—Recent arrivals from the Bay St. Lawrence report the mackerel fishery a failure there, as well as on our own shores, and some of the vessels had not seen a mackerel for a fortnight before leaving the Bay. The vessels already arrived, representing the portion of the fleet meeting with the best success, report an average catch of 183 bbls., which would not be more than half a fare in ordinary seasons, and will not pay the expenses of the voyage, even at present high prices. Unless the majority of the fleet, still remaining in the Bay, find better fishing this month, which is not deemed probable, most of the vessels will be obliged to return empty, and the mackerel fishery will prove a lamentable failure this season. The Shore fleet are doing nothing of consequence. Sch. Maud Muller met with a streak of luck off Portland a few days since, and took a fare of 170 bbls. mackerel at one haul of the seine, but the rest of the fleet have not been so fortunate, and report mackerel scarce and shy.

The number of fishing arrivals reported at this port the past week has been 69, as follows: Banks, 11, with 600,000 lbs. codfish, 245,000 lbs. halibut; 31 from Georges, with about 375,000 lbs. codfish, 6,000 lbs. halibut; 5 from the Bay St. Lawrence, with 800 bbls. mackerel; 22 from Shore trips, with 600 bbls.

The masters of the vessels returning from the Bay St. Lawrence agree in the opinion that the mackerel have left the Bay and that the fall fishery will be a failure.—*Cape Ann Advertiser*, Sept. 7.

*Beach Haven*.—Striped bass fishing is to be had here through September. The best time for catching them is during the first two hours of the flood tide. Bait with soft crabs.

*Kinsey's Ashley House, Barnegat Inlet*, Sept. 8.—Storming past three days—2d, 3d, and 4th. From 50 to 200 bluefish for a day were taken by yachts outside the inlet. One party of ladies and children caught 78 on the 2d in front of the house.

PENNSYLVANIA—*Edenburg*.—A. Harris, of New Castle, recently captured a salmon weighing nine pounds eleven ounces. This is the first salmon taken in this vicinity for twelve or fifteen years.

*Clearfield*, Sept. 8.—Bass fishing is at its height. Famous strings are made by amateurs and experts. The river is still infested with dam builders, who are now, however, likely to come to grief as the Sheriff and District Attorney have taken them in hand.

*Phoenixville*.—A bass weighing five pounds was recently captured in the Schuylkill.

DELAWARE.—The *Germantown Telegraph* gives welcome news of a new and more expeditious route to the perch fishing grounds of Betterton. Leaving Broad and Prime streets, in the Baltimore Railroad's fine cars at 8 A. M., or 5½ P. M., you get off at Still Pond, which is about six miles from Betterton, where you take a conveyance, which is always to be had, and in an hour you are at Betterton, making 5½ hours in all. There are generally many boats every day on the "fishing ground," but there is room enough and to spare for all. Storms are to be provided against by up anchor and scudding in a lee-line for the shore. Perch are more numerous this season than for several years past.

KENTUCKY—*Louisville*, Sept. 10.—A party of city anglers are at Kelley's Island, Lake Erie, where bass fishing is reported excellent. Gen. Geo. B. Hodge is spending his vacation, shooting and fishing, at English Lake, Ind. Hal Griswold and Geo. James leave to-morrow for Fourteen-mile creek to spend several days. J. Val Cowling, H. M. Griswold and others will spend six weeks camping on the Kantakee, hunting and fishing. They leave the last of the month. R. M. Cunningham and several other gentlemen left to-day for Lawrence on White River, Indiana, to fish during the week. Fishing is reported excellent there. Mr. J. R. Middleton returned Wednesday from an extensive fishing excursion in Wisconsin. He caught one pickerel that weighed twelve pounds.

DETROIT, Sept. 8.—E. W. Reynolds, Charles Ives, William Radcliff and Robert Baker arrived home on Tuesday last from a ten day cruise at the St. Clair Flats. They had very fair success, getting 103 bass bass, and 87 pike. On the 3d inst. L. W. Hallow caught 32 black bass and 2 pickerel. The pickerel weighed 12 pounds each. E. O. Dunfee and L. W. Hallow, on Sept. 4, caught 24 black bass; H. D. Potter caught 26 black bass on the 5th inst; Hon. S. Chandler, Geo. Jerome and Alfred E. Brush caught, on Sept. 6, in one hour, 50 perch, Mr. Brush catching also a ten pound pickerel.

BOVER.

CALIFORNIA, *Watsonville*.—The citizens of Watsonville to make the Pajaro Valley a favorite resort for hunting and fishing, have organized a Piscicultural Society, and the pretty lakes toward the foothills are to be stocked with fish.

—"Going a fishing" is the Californian editor's way of announcing the suspension of his paper, from and after date.

LABRADOR FISHERIES.—After a scientific exploration of the coast of Labrador by Professor Hind, it was found that the fish on the southern shore of the peninsula have alarmingly decreased in number since 1870, and the result of the salmon, cod, mackerel, and herring fisheries this season fully sustain the Professor's opinion. Immediately on his return to St. John's, N. F., where he was to report to Sir John Glover, the Governor, he published a warning to the merchants and outfitters of that island, that if they did not employ larger vessels to sail to the extreme northern coast of Labrador, one of their most valuable resources would soon be in a condition of hopeless decay. The extreme northern waters are, according to Hind's report, teeming with fish, which would suffer no perceptible depletion after twenty years' successive fishing; while on the other hand the fishing grounds of the southern coast would recover their ancient yield, if the Colonial Government were to legislate against fishing in that part of Labrador for ten or fifteen years.

HALIFAX, Sept. 9.—The Fishery Commission, it is understood, gave a decision on Friday, previous to adjourning, which completely destroys the idea that the Washington treaty put an end to all disputes relative to the North American fisheries. If the report is correct—and it seems to be well founded—counsel acting for the United States asked the Commissioners to rule that the commission do not consider it within their province to award compensation or take into consideration the advantage to American fishermen of transhipping cargoes, or buying bait, ice, and supplies. Two days were spent in argument of this question, nearly all counsel of both sides taking part. The counsel for Great Britain took strong ground against the propositions. A large part of the British case was devoted to pointing out the advantages to American fishermen of being in a position to purchase bait and supplies, a claim for large compensation being founded thereon. The American counsel contended that the Washington treaty gave no such privileges to their fishermen, and that the present commission should not take them into consideration. The idea of the Americans seems to be that a large number of our people, being interested in trade with American fishermen, will prevent the Dominion Government from interfering with the latter if they can under present laws, or introducing new legislation for such a purpose. The Commissioners gave unanimous decision that they were incompetent to award compensation for transhipment of cargoes in British waters, or for purchase of ice, bait and supplies.

—"Far be it from us to doubt the word of a brother editor," says the *La Crosse Sun*. "We believe them all to be truthful men; but when the *Durand Times* says that the water is so low at the mouth of the Chippewa River that catfish have to employ mud turtles to tow them over the bar, we feel as though the editor must be away, and some local minister filling his place."

—Brandon House, Watterstone & Barton Proprietors, Greenwood Lake, Orange Co., N. Y. Black bass biting well. The cool weather gives excellent opportunities for fishing. Reduced rates; now is the time for sport. Take Montclair and Greenwood Lake Railroad, foot of Desbrosses St.

QUERY.—I like fish stories and have myself caught sharks, and without being captious, and for the purpose of general information, I would like to ask the contributor of "Red Snapper Fishing in the Gulf of Mexico," in Aug. 30th issue, if he intended to infer that the indications of getting the second ten gallons of oil from the one hundred and twenty-five pounds of sharks' liver were real good. Oil weighs about seven pounds per gallon, and that liver is rich in oil and would not leave any scrap.

So long as your correspondent confined himself to fish, I had nothing to say, for fish caught by myself have never lessened either in number or weight when relating the circumstances of their capture afterward; but oil is a slippery subject. B.

*Austin, Texas*, Sep. 7, 1877.

FISHING FOR RATS.—Recently several lads were seen to enter the main sewer on the left bank of the Seine at Paris by one of the barred outlets to the river. A policeman, curious to know what they were about to do, followed them, and found them seated by the edge of the turbid current fishing

for rats with a strong line and hook, the latter baited with a morsel of bacon, partially fried. When taken to the Commissary of Police they explained that they sold the skins of water-rats at from 20c. to 30c. each, according to size, for manufacturing into "kid" gloves for ladies. One of them, who was not not fishing, when questioned as to his means of earning a livelihood, stated that he was "un flot" (a wave), that is to say, in the evening, at one of the theatres, he passed backward and forward beneath canvas, painted in shades of blue, to imitate the motions of waves at sea; but the official detained him for vagabondage, considering the calling in question too vague to give a living.

## The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age. 2. Food and medicine given. 3. Appearance of the eye; of the coat; of the tongue and lips. 4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc. 5. Breathing, the number of respirations per minute, and whether labored or not. 6. Condition of the bowels and secretions of the kidneys, color, etc. 7. Appetite; regular, variable, etc. 8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg. 9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

—E. S. Wanmaker, of Hoboken, N. J., has a most excellent breeding, rearing and boarding kennel. He makes a specialty of breaking dogs for the Southern market.—See advertisement in another column.

—W. N. Rowley's terrier dog, which took prizes at Charleston and Quebec, has come to an ignoble end by being run over by a truck in Detroit.

LUNATICS AT THE DOG SHOW.—A novel feature of the Boston Dog Show was the visit, on Friday, of the patients of the South Boston Lunatic Asylum.

A DOG'S STRATAGEM.—The Sunday *Mercury* tells this story:

A gentleman in Westchester county is the fortunate owner of two dogs, one an honest Newfoundland, and the other a little black-and-tan terrier. One cold night last winter, a friend who happened to be at the gentleman's house, heard the little dog barking at a furious rate, and inquired the cause. "I'll tell you," said the gentleman; "both dogs occupy one house, and the big dog, on the principle that might makes right, takes the inside. But here's a piece of canine strategy. The little fellow runs into the yard and barks and barks, till the big fellow comes out to see what's the matter, when the black-and-tan takes the opportunity to slip into the kennel, and so secure the snug inside berth. Strange to say, as often as this trick has been played on the big dog, he seems to grow no wiser, but is sold every time."

SHOOTING A HUNTER'S DOG.—A case of interest to hunters and owners of country property was recently tried in Marin county, California. An employé of Claude Callot, of Ross Landing, went out hunting, taking Callot's dog, a valuable pointer, with him. The dog raised a fox and chased it upon the land of William Geoppart, who got his gun and went in the direction of the dog and fox. The employé heard the report of a gun, and shortly afterward the dog came home wounded in the legs. Callot thereupon had Geoppart arrested for malicious mischief in shooting the dog. The charge being proved before Justice Hughes, of San Rafael, the latter found the defendant guilty, and fined him \$1 and costs. Callot then brought a civil suit against Geoppart for the value of the dog, which he fixed at \$399.99. The case was tried one day last week, and judgment rendered in favor of the owner of the dog for \$250. The case will be appealed to the higher courts.

[We are glad to see the ball rolling in the right direction at last.—Ed.]

NAME CLAIMED.—I claim the name of Gypsey for my liver and white cocker bitch, by M. P. McKoon's Captain, out of his Bess, whelped July 13, 1877. D. M. SHARPNACK. *Petroleum, West Va., Sep. 1.*

## CANINE THERAPEUTICS AND PATHOLOGY—Seventh Paper.

CLASSIFICATION is highly advantageous as affording the opportunity of presenting in one view, and comparatively few words, all the common properties and uses of any number of remedies; so that, in the subsequent description of them severally, that which is not peculiar to each may be omitted, and thus spare a vast amount of repetition. And it is essential as by fixing in the mind the properties of classes, and thus serving to recall these properties in relation to any individual article, simply by the remembrance of the class to which it belongs; it aids memory, and enables one to gather and retain an amount of knowledge which would be quite unattainable were remedies taken up and each completely analyzed by itself.

Every mode of classification is open to criticism in one or more of its details, but that of Wood seems to combine the greatest number of most desirable qualities, and for that reason has been selected.

Remedies are classified by this author first as *systemic* and *non-systemic*. To say that the former comprises those that act directly upon the system, and the latter those which act indirectly or upon extraneous bodies contained within the system, will be sufficient explanation. The first embraces the great body of remedies; the second but four small classes, which are retained merely for practical convenience, as it is desirable

that the substances composing them be associated together in the memory.

*Systemic remedies* are either general or local.

I. GENERAL REMEDIES may be considered as those which extend their action throughout the whole living system; or, operating upon one or more of the functions—as the circulatory or nervous systems—make themselves felt throughout the whole body, though not strictly universal in their dual influence. Such are necessarily either Stimulant, Sedative or Alterative; that is, either elevate, depress or alter the systemic actions.

*Stimulants*.—If the operation of stimulants be closely observed, it will be noticed that some are slow, moderate and lasting; others, on the contrary, are quick, energetic and proportionately brief in their action; the two sets, however, run together by almost insensible gradations. This difference of operation was made, by Dr. Murray, of Edinburgh, the basis of a division of general stimulants into two sets, which he designated respectively as permanent and diffusible stimulants.

Permanent stimulants are of two classes, viz.: *Tonics*, or medicines characterized by their general stimulating influence over the functions, operating slowly, moderately and somewhat durably, either directly through the circulation or, secondarily, through the digestive function. *Astringents*—medicines which produce contraction of living tissues.

Diffusible stimulants are also of two classes.

1. *Arterial*, or those that increase the action of the heart and arteries, and along with this effect—and probably consequent upon it—causing an elevation of the animal temperature. 2. *Cerebro-spinal Stimulants*. These are of three kinds: *a. Nervous Stimulants*, characterized by a special but equal influence over the nervous system, generally stimulating in some degree—though not necessarily—the circulation also. They are more generally known as Antispasmodics or Nervines, by which names they will be called hereafter. *b. Cerebro-Stimulants*, with more or less influence on the circulation—sometimes powerful—and are peculiarly characterized by their control over the special cerebral functions. They embrace some of the most energetic articles of the materia medica, as alcohol and opium. We shall have occasion to refer to these under the title of *stimulant narcotics*. *c. Spinal stimulants* acting specially, so far as their operation is known, on the reflex motor functions.

*Sedatives*.—These are remedies which directly depress the vital functions. While a few operate universally, as cold and water, most of them, like stimulants, act exclusively or especially on one of the two great systems, the circulatory, namely, and the nervous; hence we have:

1. *Arterial sedatives*, which act mainly, if not exclusively, in their primary influence, upon the heart and arteries, without any direct effect on the cerebro-spinal functions. They are also called *refrigerants*, as reduction of temperature is among the results of circulatory depression.

2. *Cerebro-Spinal Sedatives*; which may be advantageously divided into: *a. Nervous Sedatives*, or those that reduce generally the nervous functions, without any special reference to the brain. They uniformly, either by a conjoint primary action, or, secondarily, through their influence upon the nerves, reduce the force of the circulation also. These will be frequently spoken of as Sedative Narcotics. 3. *Cerebral Sedatives*—remedies which, while they depress the circulation either primarily or secondarily, exert a special and marked influence, of a sedative character, on the cerebral functions. Like the preceding class, they would rank with medicines usually known as sedative narcotics.

*Alteratives*.—Alteratives are medicines which insensibly change the functions or organization, without necessarily elevating or depressing vital actions, and the influence of which is mainly recognized by their effect in disease. They may be stimulant or sedative, and may produce various local effects which would rank them in other classes; but it is not through these that special curative effects are produced which entitle them to the name by which they are distinguished. Knowing so little of their mode of action, we are not possessed of sufficient grounds for subdividing them. Perhaps a simpler definition of alteratives would be, medicines which modify the nutrition of the body without producing any antecedent phenomena.

II. LOCAL REMEDIES, or those that act indirectly, or upon some special part or organ. We do not include in this section—in reference, at least, to their peculiar and characteristic properties—the general remedies which may sometimes be made to act locally by confining them to a particular part, as opium, for example, and belladonna, both of which are sometimes applied to the surface with the view of affecting exclusively the neighborhood of their application. The section includes only medicines which either have a special direction to some particular organ or part of the body, to whatever portion of it they may be applied, or which, if possessed of general powers, are employed locally for some effect different from the general; as, for instance, cantharides, as used for blistering purposes, which effect is not incident to its internal use as a medicine.

With few exceptions, all the local remedies are more or less stimulant; and the possession, therefore, of this property or that of depression, does not constitute a sufficient ground of distinction between them. Consequently, we seek other classification, and hence are most conveniently arranged according as they are employed to affect the functions, or change the organization, or to act merely as mechanical agents.

*Local Remedies*—Acting on the Functions.—The subdivisions of these are all ultimate classes of medicines, and are as follows:

1. *Emetics*, which operate on the stomach, producing vomiting; 2. *Cathartics*, which operate on the bowels, producing evacuation per anum; 3. *Diuretics*, which act on the kidneys, increasing the secretion of urine; 4. *Diaphoretics*, which act on the skin, causing or increasing perspiration; 5. *Expectorants*, which act on the lungs causing expectoration; 6. *Cholagogues*, which act on the liver, increasing the secretion of bile; 7. *Emmenagogues*, which act on the uterus, exciting or increasing its secretions; 8. *Uterine-Motor Stimulants*, which favor uterine contraction; 9. *Salagogues*, which increase the secretion of saliva; and, 10. *Erythines* or *Sternutatories*, which operate on the nostrils, causing an increased secretion and sneezing.

*Local Remedies Affecting the Organization*.—The subdivisions of these are also ultimate classes, and are as follows:

1. *Rubefacients*, inflaming the skin; 2. *Epiplastics*, producing blisters; and, 3. *Escharotics*, destroying the life of a part and producing a slough.

*Local Remedies Acting Mechanically*.—These include, besides the various mechanical influences hereafter to be mentioned, the following classes of medicines:

1. *Demulcents*, bland, viscid liquids, which cover surfaces and protect them from irritation, or mingled with acid substances obtund their acrimony; 2. *Emollients*, which soften and relax; 3. *Dilutents*, which dilute the fluids of the body; and, 4. *Protectives*, which operate by covering the surface and preventing the contact of air.

Of the ultimate classes which compose the *Non-Systemic Remedies*, we have

1. *Antacids*, which neutralize acids in the stomach, or elsewhere in the system; 2. *Absorbents*, which by absorbing acid or irritating matters, prevent or diminish their irritant action; 3. *Solvents*, which effect the solution in the stomach of substances otherwise insoluble; and, 4. *Anthelmintics*, which cause the expulsion of worms from the bowels.

The following is a tabular view of the foregoing classification, the ultimate classes being in italics.

### SYSTEMIC REMEDIES.

#### GENERAL REMEDIES,

##### Stimulants,

##### Permanent Stimulants,

*Astringents,*

*Tonics,*

##### Diffusible Stimulants,

*Arterial Stimulants,*

*Cerebro-nervous Stimulants,*

*Nervous Stimulants,* or *(nervines and antispasmodics,*

*Cerebral stimulants, or Stimulant narcotics,*

*Spinal Stimulants.*

##### Sedatives,

*Arterial Sedatives, or Refrigerants,*

*Cerebro-nervous Sedatives,*

*Nervous Sedatives,*

*Cerebral Sedatives, or } Sedative Narcotics.*

##### Alteratives.

#### LOCAL REMEDIES,

##### Affecting the Functions.

*Emetics,*

*Cathartics,*

*Diuretics,*

*Diaphoretics,*

*Expectorants,*

*Cholagogues,*

*Emmenagogues,*

*Uterine Motor-stimulants,*

*Salagogues,*

*Erythines.*

##### Affecting the Organization.

*Rubefacients,*

*Epiplastics,*

*Escharotics,*

##### Operating Mechanically.

*Demulcents,*

*Emollients,*

*Dilutents,*

*Protectives.*

#### NON-SYSTEMIC REMEDIES.

*Antacids,*

*Absorbents,*

*Solvents,*

*Anthelmintics.*

No apology seems necessary for drawing upon a well-known author for the material of this section, or even for adapting his language to teach the desired system. It is as near perfect as the present state of our knowledge permits, perhaps, though not entirely original with Dr. Wood.

The attention of the reader is particularly requested to a few considerations, which are necessary to a proper understanding of this arrangement. The remedies named in the several classes, while they agree in the possession of the peculiar property which characterizes the class, often differ much in other respects, and in many instances are applicable to very different purposes. They are classified so far as possible according to their most distinctive property, or that for which they are most valuable therapeutically, and then, in the description of each remedy, all its other remedial properties and applications are noted, so that its individual character may be well understood.

Again, it happens, not unfrequently, that a remedy belonging to one class, has additional powers which serve to rank it in another. In such cases, it is considered in both, being treated of at large in that with which its most important therapeutic character would rank it, and in the other, only so far as may concern its categorical position. In therapeutics it is not any particular medicinal substance or remedial agent that we have in our minds, but the condition of disease calling for certain remedial influences; and it is important that our knowledge should be so arranged in the memory as most readily to suggest the particular medicine that may be best calculated to exert this influence. This object is certainly better attained by ranking all the remedies together calculated to meet each indication, and to have them associated in our mind, than by having the whole character of each body, in all its different relations and applications, impressed upon us at one exclusive view. Thus it will be more useful, practically, when we have occasion for an arterial sedative, emetic, expectorant or diaphoretic, to have tartar emetic associated with each of these classes in our recollection, than to know it only as a preparation of antimony having a great diversity of properties, and thus be compelled to think over it, along, perhaps, with a num-

of other bodies, in order to ascertain whether any one of these properties may suit our present purpose.

In reference to the modes of operating on the several remedies in producing the effects which serve to classify them, we shall offer and enforce those views which seem most in accordance with reason and experience, not omitting, however, to allude to others which may have been advanced. At the same time we desire always to be understood as considering the knowledge upon this point to be provisional in a great measure, and liable to be materially modified in the progress of discovery.

**ALGERIAN GREYHOUNDS.**—These greyhounds are held in the highest esteem, and are considered as very valuable, large sums of money being frequently paid for good specimens. Their color is generally a light-brindle mousy tint, without any admixture of any other color. They are generally tall, stoutish, very powerful, and fairly fast. Their heads are rather peculiar, inasmuch that they show the *os occipitis* quite as much as many hounds; and they have, withal, an uncommonly long pair of jaws, which gives them a rather wolfy appearance. They are generally desperate fighters, and are, as a rule, very troublesome with strangers, being apt to seize any individual whose looks or dress do not exactly coincide with their own opinions on the matter. And as their masters gather delight in seeing any onslaught of the sort, and tacitly or openly encourage them in such little diversions, why it is not always safe for the bare-legged beggars of the province of Algiers or Tunis to get into too close contact with these sharp-teethed customers. I bear in mind now a treat of the sort we had when we landed at Algiers (for the first time, as far as I was concerned) about eight years ago. We were "doing the Mediterranean," and, of course, *faucelle princesse*, Gibraltar had our first visit; its opposite neighbor, Algiers, came next in our attention, and we got there ashore early in the morning, so as to see what was to be seen before the mid-day heat had rendered walking well-nigh impossible. Two or three vagabonds who were loafing in the sun, and scowling at us, suddenly got up and began scampering away. Coming up the street was an Arab chief, on his gray horse, and by his side trotted a very handsome *Sloughi* (greyhound). Whether the said chief had said something, or not, to the dog it would be hard to say, for his countenance remained throughout perfectly imperturbable; but, anyhow, the coursing we had then and there was an infinite treat to our men, who fairly roared with laughter. The way this *Sloughi* went after one, then the other, and then the third of those beggars, and gave a wrench here and a wrench there, was, to say the least, very suggestive. In a moment the place was cleared, and the dog went back to his master, who looked as serious as ever, but I strongly suspect that in his innermost soul he was delighted. All *Sloughis* are marked by their owners with a star on the forehead, why, I cannot tell, a mere custom, I presume. It is also said that their fore-legs are occasionally fired to give strength to the articulation. Why the Arabs are so fond of their greyhounds, however, is very easily explained. First of all, since their many periodical insurrections, by which they have repeatedly tried to set the French authorities at defiance, the French have found it expedient to forbid the sale of gunpowder to the tribes, for fear they should use that powder against themselves. This being the case, any Arab who has sporting tendencies must either resort to some device in order to procure gunpowder, or, failing in getting any, he must sport without. But sport he shall, for the love of sport is in him a second nature. He would decidedly prefer using a gun. The noise of the explosion, the flash of the flame, the smell of gunpowder, are all very dear to his soul, but if he cannot get the precious compound, his dog and his hawk will amply supply his needs. Not that he cares much himself for game; mutton is his favorite dish on gala days; but when away in the wilderness he likes to pick up whatever game he finds, or, if near a town, he kills birds and hares for the markets; for I need not state that the European residents have naturally caused a very great demand for anything of the sort.

Now, a good *Sloughi* experiences no difficulty whatsoever in keeping his master and family in great comparative comfort. The price of a hare will keep them all for a week; so no wonder the Arab prizes the clever *Sloughi*, who never or rarely misses his quarry. Of course, it will readily be understood that there is no question about fair coursing in such proceedings. A hare is found, let the greyhound kill it and bring it back, and he is a good greyhound; let him miss it and miss killing others, and his own fate will be pretty clear. In short it is merely a question of market. Most Algerian greyhounds hunt for their own game, and have a very fair amount of scenting powers. They are, to tell the truth, likely to own this last property all to themselves, for, although the British officers garrisoned at Gibraltar, and the French officers who reside in Algeria, have repeatedly imported pointers, setters and spaniels into the Algerian territory, it has always been found that eventually these dogs lost their scenting faculties to an alarming extent, and their offspring are almost invariably noseless. Therefore the *Sloughi* is likely to be the only canine assistant to be relied upon, and he thrives on the terrific heat which dulls his European cousin's faculties.

The Algerian greyhound, like ours, is very "tender." As soon as winter draws nigh he is wrapped up in his clothing, and the greatest care is paid him. In fact, throughout his life, he is regularly made a pet of. It is not unusual by any means to see very young puppies nursed by the women, as though they were babies, and sharing with the babies in all their privileges. Should a *Sloughi* bitch die in giving birth to her litter, the youngsters are at once handed over to the care of the women who rarely fail to give a very good account of their charges. When a good dog has achieved a reputation, the owners of bitches flock to his master from hundreds of miles for the dog's services, pretty much as is done within the shores of the "little tight island," but in the desert the journeys have to be performed on horseback, and a great deal of time and trouble have necessarily to be taken to ensure a desirable crossing. Such is the horror of Arabs for any low admixture of our blood that they sometimes kill the bitches that have granted their favours to sheep dogs and other breeds, or, if they spare her life, her progeny is doomed. When, however, the connection is of the desirable sort, many are the applications made for puppies, even before the puppies are born. When three or four months old the youngsters are made to race after and kill rats. When five or six months old they are entered to hares; but it is only when fully a year old that they are slipped at gazelles, and then, accord-

ing to General Damas, only at young ones, so as not to exhaust the dogs. It is only when fully developed that they are brought to course full-grown gazelles. The way in which the latter sport is carried out is simple enough. The dog is secured by a leash, and hunts the scent like a Lynx. When the gazelles are discovered the master slips his dog, who thereupon chooses among the herd a particular animal, to which he devotes his attention, generally with success, if he is up to the mark; but it does really take some running to secure a three-year-old gazelle, so, generally, the greyhound runs cunning, until he gets near enough for a rush, when he puts on all steam and springs on his quarry. For hares, no precautions, such as putting the dogs in slips, are taken. The Arab, either on horseback or on foot, accompanies the dogs, who are loose, and he beats the ground, while they hunt about for scent. As soon as a hare is started, at her the *Sloughis* go, and, of course, she is soon collared.

These greyhounds are also employed for partridge hawking. The sportsman carries his hawk on his turban, and when the greyhounds flush a bird or a covey, away sails the hawk after him, and soon secures one. Formerly, however, only the chiefs of tribes kept either hawks or greyhounds. It would have been then considered perfectly ridiculous for any man but one of gentle blood to own either. No matter whether rich or poor, the chief was almost by his birthright entitled to such companions in the chase; but no matter how well off a commoner might have been, he would have been laughed at and derided by his tribe fellows if he had the impudence to take up greyhounds and hawks. Now, however, things have altered. Since the conquest of Algeria by the French many of the chiefs have lost their authority and not a few have been killed. Their French masters told on the old notions, and now any one who can afford it may keep either a *Sloughi* or a hawk, or both, with, however, this distinction, that the well-to-do Arab keeps them for sport, whereas his poorer brethren resort to them simply as means of subsistence. No wonder then that such a value is set upon the Algerian greyhound! When a *Sloughi* dies, General Damas tells us that it is, for his master's family, the greatest calamity that could possibly affect it; since he literally earned the daily bread. In the ordinary routine of life the dog is treated as well as the head of the family himself, being fed on the best that the resources of the tent can procure, and he sleeps usually by the side of his master, sharing the same couch. These dogs' affection for their masters is quite touching. Some die of grief if their master remains away for any length of time, and all pine away from the moment they are separated from him. On his return, however, the wildest joy prevails in the household, and it is not rare for the *Sloughi* to spring on his master's saddle for his caresses. Very many of these greyhounds wear ornaments of all kinds round their necks, and some of these fancy collars, when the dogs belong to rich men, are very valuable; whereas the *Sloughi* who belongs to a poor man is adorned in a rough-and-ready fashion with common shells, strung together on a bit of common twine. In short, no matter who owns him, the *Sloughi* is pretty sure to be very well treated. This is all the more curious that all other breeds of dogs are invariably looked upon with contempt by the Arabs. They cannot rank a pointer or a setter, for instance, with their *Sloughis*. They have not the sense to. They do not understand the subtlety of a dog standing to his point and being backed by his companion. They only admire a display of speed, because it appeals to their eyes without fatiguing themselves; hence the great adoration which they pay to the *Sloughis*. The dog that can catch the game is the dog, by excellence, for them, and no doubt they are quite right in their way; for of what earthly use would a pointer or setter be to men who cannot shoot, either flying or running. As a matter of fact, most Arabs, when accompanying Europeans as guides, are wonderfully struck by the work of the Pagan's dogs; but they preserve a very stolid countenance, and only among themselves do they discuss the performance, and, whilst admitting the admirable fashion in which their French or English employers manage their sport, yet they invariably conclude their discussion by the exclamation, "It is all very well, but give us a good *Sloughi*, and then we want no gun, and no powder and no shot to secure our game!" Of course, as far as that goes, it is right enough from their point of view.

Some *Sloughis* belonging to poachers are trained to half-point at game, when their masters, if they own guns, put the game on the ground, and if they have no guns they knock the hares on the heads in their forms with clubs, or when partridges are flushed, they throw, in the "brown" of the covey, a short, heavy stick, which rarely fails to bring down to mother earth a few of the feathered tribe. That it takes a good deal of practice to be successful in any undertaking of the sort many sportsmen will admit readily, but that it is being done by many of these men as their daily avocation is well known to European residents in Algeria, and a visit to the markets on any day will convince the most skeptical. Almost all the birds brought there will show, as plain as could be, marks of the sticks, by their smashed heads and broken wings; but no gunshot will be found in them. As for the hares, they are either caught by the *Sloughis* or smashed with clubs by the *Sloughis*' owners, and not one hare in a thousand will show traces of shot, that is when they come from the tribes, for now and then a European finds too much of his game on his hands, and sells it, in which case, of course, every head of it has been duly shot.

Some of the European residents have, of late, imported greyhounds of their own, or procured some *Sloughis*, and a good deal of coursing now takes place in the neighborhood of all large towns, wherever consulates or large stations are established. Thus, many of the French officers garrisoned at Algiers are to be seen with their British *confreres* from the other shore, now and then, cavalcading about in the country in search of a little excitement with their swift dogs; but gazelles are only to be found now in the desert, and one must ride many wearisome miles to indulge in the sport.

Wild boars are also roused by *Sloughis*, but the dogs have only to harass them and drive them on. They could not kill the boars. The Arabs, however, despise boars. To them they are *unclean* animals, and when they kill one they never touch it, but allow it to rot away where it fell, and carnivora and birds of prey are welcome to make a meal of it.

To resume, then, the *Sloughi*, or Algerian greyhound, is essentially the sporting dog for Algeria. None other is acknowledged by the native population, and he (the *Sloughi*), when good, is looked upon there almost as a demi-god.—*AUCURIO in the Live Stock Journal.*

**THE "KENNEL REGISTER."**—I take this means of answering certain questions constantly asked me regarding the Register. 1st. The labor of compiling is so great the Register will not be sent before the early part of 1875. 2d. The price cannot be determined till the book is in press. 3d. It is utterly impossible to give now the numbers of dogs'

entry in the completed volume, as the pedigrees sent in must be divided into classes and arranged alphabetically before numbers can be assigned.

4th. The entries closed the first of this month, and cannot be extended for any purpose, so that no pedigrees can be received except those for which blanks have been already forwarded. It is intended to issue a volume yearly, and those dogs not included in Vol. I. can appear in its successors.

ARNOLD BURGESS, Compiler Kennel Register.  
Hillsdale, Mich., Sept. 3.

**Boston Dog Show.**—The Show closed Saturday evening, having been a success in every way, though it is much to be regretted that there were not more exhibits in the first division. The awards are as follows:

Division 1.—Sporting Dogs.—Class 2.—Champion Irish setters.—Best dog, No. 1, Elcho, William Jarvis, Claremont, N. H., 1st premium, \$25; no competition. No bitches entered in this class.

Class 3.—Champion Gordon setters.—1st prize, \$25, Shot, belonging to A. F. Copeland of Boston. No bitches, no competition.

In 1st, 4th and 5th classes there were no entries.

Open Classes.—Class 6.—Native English Setters. 1st prize, \$20, to L. J. Calley, Boston; 2d, prize, \$10, to J. Cleaves, Mount Pleasant; J. A. Lakin of Westfield, dog Ned, B. Norton of East Boston, C. A. Tozer of Boston, Francis Harrington of Salem, very highly commended. Best bitch, \$20, to John S. Bates, Portsmouth, N. H.; 2d best, \$10, E. E. Hardy's Diana of Brooklyn; J. Dobson's dog of Boston, very highly commended. Best dog puppy, \$10, E. E. Hardy's Ranger. Best bitch puppy, \$10, Chelsea.

Class 7.—Imported red or red and white Irish Setters. 1st prize for dog, \$20, John Evans, Newton; second best dog, \$10, Dexter H. Follett, Boston.

Class 8.—Native red or red and white Setters. 1st prize, \$20, C. M. Barrett; 2d prize, \$10, A. Nelson, Portsmouth, N. H.; W. B. Linsley's dog, Robert Long's dog, very highly commended; Mr. Hollingsworth's dog, M. E. Hervey's dog, highly commended. Best bitch, \$20, to J. A. Davis, Boston; 2d best, \$10, Daniel Sharp, Jr., Boston. Bull dog puppy, \$10, M. Hecke, Grantville; best bitch puppy, \$10, Edwin Reswell, Lynn.

Class 9.—Gordon Setters, black and tan or black, white and tan, either native or imported, 1st prize, \$20, to J. H. J. Doane of New Bedford; 2d best, \$10, S. Bradstreet, Jr., Dorchester; Fred A. Traft, Dunham, very highly commended; W. J. Wright, Duxbury; C. A. Tozer, Boston, highly commended. Best bitch, \$20, to S. W. Redman, Burlington; 2d, \$10, to Dr. John H. Wright, Brighton. Best dog puppy, \$10, to E. D. Mandell, Jr., New Bedford; A. G. Mudge, Boston, very highly commended. Best bitch puppy, \$10, Wm. Clegg, East Attleboro; H. L. Kinsley, Stoughton, very highly commended.

Class 10.—Pointers, of 50 pounds weight or over. Best dog, \$20, Martin L. Keith, Boston; 2d, \$10, G. L. B. Tyler, West Newton; L. M. Rand, Worcester, very highly commended. Best bitch, \$20, to G. H. C. Hadley, Milford; 2d best, \$10, to No. 7, no name.

Class 11.—Pointers under 50 pounds weight. Best dog, \$50, L. M. Rand, Worcester; 2d best, \$10, T. B. Warren, Chelsea, Best bitch, \$20, Dr. Ed. J. Foster, Boston; 2d best, \$10, L. M. Rand, Worcester.

Class 12.—Pointer puppies. Best dog, \$10, to Charles Allen, Boston, very highly commended.

Class 13.—Retrieving and Field Spaniels, other than pure Irish.—1st prize, \$15, Charles F. Curtis, Boston; 2d, \$10, M. H. Bradley, City Point, South Boston. No 10 in this class, being the only pure Irish dog in the show, was recommended for a special prize of \$10.

Class 14.—Cocker Spaniels.—Best, \$15, to Charles Allen of Worcester; 2d best, \$10, to C. F. & A. C. Joslyan, Malden.

Class 15.—Fox-hounds.—Best couple, No. 203, 1st prize, \$15, Lewis P. Bartlett, Arlington; 2d best couple, Nos. 5 and 10, \$10, Charles Brown.

Class 16.—Fox Terriers.—Best, \$15, James Lawrence, Groton; 2d best, \$10, Al Watts, Boston.

A special prize of \$5 was awarded to Dr. N. W. Hawes of Boston for his Irish retriever Lena, and her six pups of that strain.

Medals were awarded as follows: William Jarvis, Elcho, L. M. Rand, Worcester; S. Parkman Shaw, Longwood; Arthur H. Nichols, Boston; Edward Faxson, Boston; William Hooper, Dorchester; Albert F. Proctor, Boston; H. K. Horton, Quincy; C. E. Fuller, Boston, and F. A. Newlan, Boston.

It is worthy of mention that three prizes in the above list were given to dogs of the Rock strain—one first prize for the best native setter; the second prize for bitches, and the first prize for the best dog pup. E. E. Hardy's pair of bitches of the Rock strain were highly commended.

## Yachting and Boating.

HIGH WATER FOR THE WEEK.

Date.	Boston.		New York.		Charleston.	
	H.	M.	H.	M.	H.	M.
Sept. 14.....	4	41	1	15	0	24
Sept. 15.....	5	43	2	11	1	27
Sept. 16.....	6	51	3	15	2	33
Sept. 17.....	7	57	4	21	3	34
Sept. 18.....	8	53	5	22	4	30
Sept. 19.....	9	50	6	18	5	15
Sept. 20.....	10	10	6	45	5	53

**CAPE MAY REGATTA.**—The race from Sandy Hook to Cape May and return, for the Bennett Challenge Cup, was sailed by the four yachts Drednought, Idler, Rambler and Vesta. They started at a little past 5 o'clock p. m., Sept. 4th. The race resulted as follows:

Name.	Start.	Finish.	Elapsed time.
	Tuesday.	Thursday.	
Idler.....	5 09 50 P. M.	9 40 44 A. M.	40 30 54
Rambler.....	5 10 11 P. M.	12 14 00 A. M.	43 03 49
Vesta.....	5 11 00 P. M.	1 45 50 P. M.	44 30 00
Drednought.....	5 09 50 P. M.		Did not round lightslip.

**MARSAQUETTA—Nahasset Yacht Club.**—The last regatta of this club for the season of 1877 was sailed off Nahant last Wednesday. There were two prizes of silver for each class where more than two yachts sailed. The courses were: First class—From starting point off Steamboat wharf, thence to

buoy off Winthrop Head, leaving it on the port, to Whistle buoy off the Graves, leaving it on the port, and back to the point of starting; for the second, third and fourth classes— from starting point to the buoy off Winthrop Head, rounding the same and back to point of starting. The following is the summary:

Table with columns: Name and Owner, Length, Actual Time, H. M. S. Includes entries for First Class, Second Class, Third Class, and Fourth Class.

NEW YORK.—Troy, Sept. 5, and 6.—The regatta of the Upper Hudson Regatta Association was rowed over a course of one mile and a half straightaway. The races were: Four-oared Shells—Entries: Wolvenhooks and Cohoes. The boats fouled, but rowed ahead, the Wolvenhooks coming in first. The Cohoes' claim of foul was allowed.

MANHATTAN YACHT CLUB, Sept. 11.—The first union regatta of this club was sailed over a course for the first, second, third and fourth classes was from an anchorage off 102d street to the southward and eastward of Ward's Island; thence to the northward and westward of South Brother and Riker's islands; thence to the southward and eastward of Throggs Point Buoy; thence to the westward of Stepping Stones Light, and thence to and around the Gangway Buoy, returning to the same course, passing between the home stakeboat and the club house.

Table with columns: Name, Elapsed Time, Corrected Time, H. M. S. Includes entries for First Class Cabin Boats, Second Class Open Boats, Third Class Open Boats, Fourth Class, and Fifth Class.

CANOE NOTES.

ON the Passaic this summer canoeing has increased in favor. One year ago Newark boasted six canoes, among them the Delaware, Dragon, Saranac and Qui Vive. Now there are not less than fifteen, including the Rambler, Passaic, Delaware, Thetis, Spray, Arrow, Josephine, Bess and Qui Vive II, with several that are nameless. It is no unusual thing to see two or three of these pretty crafts cruising in company on a pleasant afternoon, and certainly they present a fine picture, gracefully careening under the pressure of their white sail.

NEW JERSEY.—Elizabethport, Sept. 8.—First annual regatta of the Rowing Association, Staten Island Sound. There was but one race, that for double sculls. The crews entered were:

Barlett and Moore, Boyd and Rogers, Cooley and Kellogg, Kendall and Davis, Darling and Husband, Darling and Diederick, Ballantine and Marsh. The course was a mile and return. Barlett and Moore won the race in 30m. 30s.

—The Oceanic Yacht Club, of Jersey City, has elected the following officers for the ensuing year: Commodore, Charles F. Taylor; Vice Commodore, George Smith; Treasurer, Louis Heller; Secretary, William W. Poland; Measurer, John Demarest.

New Publications

THE ATLANTIC has a continuation of Mr. Aldrich's story, "The Queen of Sheba," Mr. Howell's "A Counterfeit Presentation," Mr. Whipple's papers on Dickens (this being on "Great Expectations"), and Edward H. Knight's "Crude and Curious Inventions at the Centennial." T. R. Lounsbury contributes an interesting study of the "Fictitious Lives of Chaucer," and Eugene Benson has a paper on "Dr. Stendhal." David A. Wells discusses the important question, "Are Titles and Deeds Property?" Charles Hale has a pleasant descriptive paper on "Consular Service and Society in Egypt." There are several poems and a sad little story, "The Child of the State."

LIPPINCOTT'S has two illustrated articles, "The Kabylies," by E. C. Bruce, and "A Paduan Holiday," is described by Charlotte Adams. Howard M. Jenkins has a sketch of the "Battle of Brandywine," and there is a paper on "Madame Patterson Bonaparte," and Edward Duryea writes of "Our Blackbirds." The departments of poetry and fiction are well filled.

THE GALAXY opens with a discussion, by Isaac Newton, of the question, "Has the Day of Great Navies Passed?" and a somewhat kindred subject, "The American Army," is treated by F. Whitaker. "Americanisms" is by Richard Grant White, of course. There are interesting articles on "Inez De Castro, of Portugal," "Venice," "Poems of Interest in England," "A Chapter of Oddities," and a more serious one on "The Municipal Debt of the United States." Poetry and fiction are well represented, and the editorial departments are up to the usual standard of vivacity and timeliness, which usually characterizes them.

St. Nicholas presents as a frontispiece a spirited picture of Col. Kane's coach. The opening article is descriptive of "Young Polks' Fnn in Central Park." There is a charming Scottish story by McDonald; a rollicking story entitled "Drummer Fritz and His Exploits," and among a host of other good things is a well written account of "An American Circus in Brittain." Who but a schoolma'am, and the "Little Schoolma'am" at that, would ever have thought of that paper on "School Luncheons?"

Answers to Correspondents.

No Notice Taken of Anonymous Communications.

E. Kuhn, City.—Read the notice at the head of our kennel column and govern yourself accordingly.

J. O. F., Hornellsville, N. Y.—What is the price of "Long Range Rifle Shooting?" Ans. 25 cents.

STENOGR. Menomone, Wis.—Your description is too meagre; see head of kennel column.

F. G. L., Waltham, Mass.—From your description we are unable to point out the fault with your gun. Consult a gunmaker.

F. H., Boston.—Shepherd dogs are "collies." Fishing is quite inferior in Chataqua Lake, N. Y., owing to the deprivations of poachers.

J. J., Milwaukee.—Are the "unaccountables" which so often occur at Creedmoor made when new shells or old are used, or both? Ans. both.

B. DE S. P., Ithaca.—We know of no one at present who is a greyhound for sale. Try advertising in our columns. Mr. Waddell will probably give you good testimonials if you write him.

C. L. I., Phila.—My setter dogs is very tender about the ears. Although there are no sores visible he will yelp at the slightest twitch of the ear. Ans. Should not trouble about him at present.

W. T. H., New Bedford.—What kind of sport, hunting and fishing can I find in southern Georgia, or northern Alabama this fall and winter? Ans. Deer, bear, wild fowl, bass, etc.

W. T. R., N. Y.—To show good penetration how many sheets of paper should a ten-gauge breech-loader penetrate with 3/4 drs. powder, 1 1/2 oz. No. 8 shot at 40 yards? Ans. 30 to 35 sheets; 120 pellets would be fair penetration.

J. C. M., Concord, N. H.—What is the correct number of pellets to the oz. of English chilled shot of the different sizes? Ans. A. 40; A. 50; B. 55; B. 75; 1, 82; 2, 112; 3, 135; 4, 177; 5, 215; 6, 250; 7, 341; 8, 500; 9, 951; 10, 1,726.

SIHEL, Cockeysville, Md.—What is the time on pheasants, quail and woodcock in season in Pennsylvania? Ans. Woodcock from July 4 to January 1. Quail October 15 to December 15. Ruffed grouse October 1 to January 1. Traps, nets, snares, etc., prohibited.

G. H Jones, Louisville, Ky.—Is the bird known in South Carolina as the rice bird, in Virginia as the red bird, further north as the ortolan and bobolink one and the same bird? Ans. The bird known as rice and rice bird is the bobolink (Dolichonyx oryzivorus). But the ortolan is the sora, or common rail (Porzana Carolina).

F. S., Boston.—Can you tell me where within 48 hour's rail of Boston I can get good woodcock and partridge shooting for two weeks in October? Ans. The reports from Laconia, N. H. would seem to point this out as a favorable locality.

R. H., Brooklyn.—Entries for the Judd short range and champion matches are to be made at office of N. R. A. 23 Park row, or at range on days of match. In Judd match minimum trigger pull 6 lbs. in other matches named not less than 3 lbs.

S. T., N. Y.—Will you inform me whether robins may be shot this year on Long Island and also when the season for ducks begins? Ans. Do not shoot robins at any season. You may kill ducks from September 1 to May 1.

ROD AND REEL, Fall River.—Will you please inform me the right name for the fish I send you in a paper box? All persons in this vicinity are stuck on the proper name for this fish. Ans. The fish is a yellow caranx (caranx crysoleucas). It is also known as the yellow mackerel (scaber crysole). It runs with the butter fish, and is not uncommon in Eastern waters.

J. W. F. W., South Boston.—Allowing the split nose to be a deformity only, is it not liable to occur with the setter as well as the pointer dog? or in other words is it a sign of cross breeding with the pointer when he split nose happens with the setter? Ans. Very likely to be.

J. G. McK., Peterboro, N. H.—I have a 38 cal. muzzle-loader weighing 7 lbs. bullet a flat pointed cone, weighing 136 grains. How many grains of powder ought I to use for shooting 200 to 500 yards? I have been using about 80 grains and it carries accurately up to the distance named; Can I use a different shape of bullet and get better results? Ans. With a hardened bullet larger charges might be used with good effect.

H. E. W., Phenix.—Myself and three companions have decided on a hunting trip to Florida. We intend starting Nov. 1. Now, can you tell us a desirable locality to make our objective point? We intend to camp and board ourselves, if we can. Escambia county would be a good point; may be reached via steamer or rail from Pensacola.

WACO, Waco, Texas.—When, in shooting double balls, a man fires both barrels of his gun at one, when the traps are sprung, is he allowed two more balls? or are the two scored against him in case he misses? or if he hits one and misses the other what is he entitled to according to Bogardus' rules? Ans. He is entitled to what he breaks and nothing more. It was his own fault.

F. H. P., San Francisco.—Can you give me any information regarding the habits and manner of breeding of the fresh-water crawfish, or small lobster? On the vineyard belonging to our firm we have a trout stream and are about to lay out a few fish ponds. Among others we would like to raise some of these crawfish which are very rare on this coast. I should also wish you to recommend me a good work on fish culture. Ans. See our natural history column.

W. H. W., Louisville, Ky.—1. Is the bird known as the quail in the East and as the partridge in the South and West a quail or partridge? 2. Is the ruffed grouse called the partridge in the East and the pheasant in the West a pheasant or not? 3. Have we any pheasants in the U. S.? Ans. 1. The bird quail belongs to the family of Perdicidae, genus Ortyx, though it is not a true representative of the partridge family. 2. It is not a partridge or a pheasant, but simply a grouse—ruffed grouse. 3. No.

G. A. S., Nyack, N. Y.—Please prescribe for my setter pup, 5 weeks old, fed on bread, milk, and well-cooked meat; eyes bright and clear, and do not notice any change in appearance. Breathing regular; bowels rather open; appetite generally good; is in a clean and warm place, plenty of sun, ventilation, etc. He has passed in his stools things that look like white worms from 1 1/2 to 2 inches long and nearly as thick as a No. 2. They do not seem to have any life. Ans. Use prescription No. 2 of "Gazetteer" in doses as per table on page 542.

NIMROD, New York.—Do you know of any place beyond Harlem River and in the neighborhood of Jerome Park where one can drive and have a little private practice with shot-gun and short range rifle? don't want any public resort, but would like to pay for use of private grounds. Ans. We do not. By advertising in our columns you will probably secure that which you desire.

—Washing in all ages and all religions has had a sort of religious significance, its effects are so important to the physical and consequently to the moral well-being. Soap may, therefore, be looked on as one of the consecrated necessities. No wonder, then, that B. T. Sabitt's Toilet Soap, recently introduced, takes such a hold on popular favor. Why not, indeed? Its components are of the purest oils and there is no need of artificial fragrances. It is the most emollient and delicious of toilet soaps.—Adv.

S. R. G., Philadelphia.—Does it injure nickel-plated and blued pistol barrels to keep them constantly covered with grease? I have heard that oil or grease softens the metal and renders it more liable to rust after the lubricating substance is removed. I live in a very moist atmosphere and find that grease is the only thing that will keep my pistol-barrels from rusting. Ans. Certainly not. On the contrary, good lubricating material devoid of acids is beneficial. Vegetable oils are usually objectionable, as containing an acid and hence they predispose metals to rust. If this is removed, or if animal oils are used no harm can possibly result.

C. L. A., Stoughton, Mass.—Will you kindly send me recipe for a vermifuge, avoiding area nut, for my pointer, one year old, who is evidently troubled with worms? Ans. Santonine, 8 to 10 grains; quinine, 3 grains; leptandrin, 2 grains; aloin, 1/2 grain; powder and mix intimately, and divide into three powders, which give three times a day on three alternate days. The morning of the day on which the powders are given give the dog a dose of either salad or castor oil. This makes nine powders and three doses of oil of the animal will receive. One day's dosing, followed by oil is usually sufficient, but to thoroughly eradicate the parasites the above way is best.

SHARROTT LAKE, Ont.—Any one who understands the habits of the black bass and knows when and how to fish for them will not be disappointed here. They run large, averaging 3 lbs. weight and there seems to be two varieties. I do not confound the Oswego with the black, but one variety of the latter seeming to be blacker, chunkier and more gamey than the other, which is the same as found in the St. Lawrence. These black fellows are known here as "humpbacks." Perhaps one is the male and the other the female, and as the fish run larger than in the river, the difference is more easily distinguishable. Ans. We cannot undertake to decide from the meagre description given.

R. E. P., Bloomington, Ill.—Would you please define for me and several other friends (who, with me, are admirers of your paper) the difference between these three fishes—the pike, the pickerel, the muskellonge. We have an argument on hand with reference to these fishes, it being contended by one party that they are all one fish in different stages of growth; by another that they are fish of the same species in the same class that a cat belongs to the tiger family. If you will settle this matter for us we shall be much obliged. Further, what is the fish called a wall-eyed pike? are there two kinds of pike—wall-eyed and another kind? Ans. You will find this matter fully discussed on page 359 of the FOREST AND STREAM of July 5th, 1877. The wall-eyed pike is the pike perch (Lutepercia stictioides Americanum, Aud.) or pickerel of the Lake Huron Fishermen.

W. H. A., Willimantic, Ct.—I have a setter pup seven months old who has some kind of disease breaking out on him which causes a good deal of scratching. The disease, as near as I can describe it, is as follows: The skin has a whitish, scaly appearance; the hair comes out, and by scratching he makes it bleed and look very bad. It first appeared on his head, but is now spreading down his fore legs and on his belly. Please give me a prescription. Ans. Wash with juniper tar soap (Cazwell, Hazard & Co.'s). Give a teaspoonful of the following three times a day: acetate of potash, 2 1/2 drs; fluid extract of balsmony and fluid extract of boneseed, each 2 1/2 drs; fluid extract of taraxacum, 1/2 oz; sweet spirits of nitre (Squibs), 6 drs; syrup sarsaparilla, 1 oz, and water to make 4 ounces. Also apply externally, blackwash as before recommended in these columns until the eruption seems to be healing, then apply the two following solutions with a sponge, mixing them in equal parts just before using: 1. Sulphuret of potassa, 2 oz.; water, 1 pint. 2. Muriatic acid, 2 oz.; water, 1 pint.



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INCUCLATION IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

**Forest and Stream Publishing Company.**

—AT—

NO. 111 (old No. 108) FULTON STREET, NEW YORK.

[POST OFFICE BOX 233.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

**Advertising Rates.**

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\*\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, SEPTEMBER 13, 1877.

**To Correspondents.**

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for deterioration of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

**CHARLES HALLOCK, Editor.**

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

**CALENDAR OF EVENTS FOR THE COMING WEEK.**

**Friday, Sep. 14.**—Trotting: Dubuque, Ia.; St. Joseph, Mo.; Milwaukee, Wis.; Edenburg, Pa.; Long Branch, N. J.; Fort Wayne, Ind.; Pottstown, Pa.; Beacon Park, Boston; Albany, N. Y.; Toronto. Base ball: Chicago vs. Hartford, Brooklyn; Springfield, O., vs. Mutual, at Janesville, Wis.; St. Louis vs. Lowell, at Lowell; Hornell vs. Standard, at Hamilton, Can.; Rochester vs. Buffalo, at Buffalo; Monticello vs. Star of Greenville, at Jersey City. Creedmoor: International Rifle Match, Ottawa (Can.); Metropolitan Rifle Ass'n Match. Regatta of Triton Boat Club, on the Passaic.

**Saturday, Sep. 15.**—Trotting: St. Joseph, Mo.; Long Branch, Toronto. Base ball: Chicago vs. Hartford, at Brooklyn; St. Louis vs. Boston, at Boston; Cincinnati vs. Louisville, at Louisville; Hornell vs. Buffalo, at Buffalo; Rochester vs. Star of Greenville, at Brooklyn, E. D.; Chelsea vs. Orange, at Orange, N. J.; Alaska vs. Winona, at West Brighton, S. I.; Monticello vs. Montclair, at Jersey City; Syracuse Stars vs. Indianapolis, at Pittsburg; Champion vs. Milwaukee, at Milwaukee; Rochester vs. Cricket, at Rochester. Creedmoor: International Rifle Match.

**Monday, Sep. 17.**—Trotting: Zanesville, O. Running meeting at Lexington, Ky. Base ball: Champion vs. Milwaukee, at Milwaukee; Rochester vs. Cricket, at Rochester; Athletic vs. Norristown Mutuals, at Phila.; Eckford vs. Targer, at Phila.; St. Louis vs. Resolute, at Elizabeth. Shooting tournament at Kansas City.

**Tuesday, Sep. 18.**—Trotting: Zanesville, O.; Pottsdam, N. Y.; Poughkeepsie, N. Y.; Clarion, Pa.; Hartford, Conn.; Chicago, Ill.; Narragansett Park, R. I.; Beaver, Pa.; Dover, N. H. Base ball: Chicago vs. Boston, at Boston; St. Louis vs. Hartford, at Brooklyn; Union vs. Independents, at Norwalk, Conn. Shooting at Kansas City, as above.

**Wednesday, Sep. 19.**—Trotting, as above; also Marsden, Conn.; Catskill, N. Y. Running meeting, as above. Base ball: St. Louis vs. Athletics, at Philadelphia.

**Thursday, Sep. 20.**—Trotting, as above, also at Westchester, at Westchester, Pa. Running meeting as above. Base ball: St. Louis vs. Brooklyn, at Brooklyn; Chicago vs. Boston, at Boston. American Rifle Association, Glenbrooke.

**SETTING BULL.**—A dispatch from Fort Walsh, Cypress Hills, British North-West Territories, states that it has been discovered that Sitting Bull is no other than Chas. Jacobs, a half breed native of Fort Garry, and an alumnus of St. John's College there. He is an offspring by birth, and the son of Henry Jacobs, an interpreter, living on the Manitoulin Islands of the Great Lakes.

**THE SOUTHERN SHORE OF LONG ISLAND.**

SHOULD any one turn his eyes toward Long Island as a summer retreat, he may have discovered on the northern shore, about fifty miles from New York, a place called Sayville—presumably the village upon the "saw." We choose this point for reasons which will hereafter appear. It is situated about a quarter of a mile from the Long Island Railroad depot, and about three-quarters from the beach. The town itself presents a somewhat scattered appearance, as though elbow-room were plenty and land cheap. It is furthermore, quiet, and if not exactly like the land of the "lotos," in which "it seemed always afternoon," the resemblance is sufficiently close to satisfy the requirements of any reasonable denizen of the city in quest of rest and peace. There is no meadow land in the immediate vicinity, and as a consequence mosquitoes are very rare, and malaria unknown. We dispose of these objections in advance, because they represent the two subjects which first call for inquiry on the part of visitors.

As to the positive advantages of the town, it is the centre of a district, in any part of which there are beautiful walks and drives. There are also a good bathing beach, excellent and safe, boating and yachting, and fishing both in sea, lake and stream. Under the direction of Major W. E. Underhill, a gentleman long connected with the Southside Club, and now at Sayville, we pushed explorations in every direction. First, we visited the grounds of Mr. Wilber, which he on the shore a short distance west of the town. The residence commands a magnificent view of the Great South Bay and the beach, about five miles seaward, and round it are fields and groves, suggestive of rural occupation and secluded leisure. Under the trees near the shore a party of picnickers regaled themselves, and near-by were the evidences that a clam bake formed part of the day's programme. Undisturbed by "a chiel among them takin' notes" they enjoyed themselves hugely, while we continued our tour of inspection. A judiciously selected belt of trees to the west gives ample shelter on that side, and a thick undergrowth affords in places excellent cover for game. Through it runs a narrow lane, beautifully shaded by trees alive with song-birds, and giving glimpses as we pass of the open country to the west. Nothing was wanted to complete the picture but the haymakers, upon whom we very shortly came as they closed their forenoon's labor. The entire place, both house and grounds, is admirable, alike for its beauty and for its all-pervading air of quiet. It is just the kind of retreat to suit a sportsman and country gentleman, who, to his love of the chase, adds a taste for an occasional indulgence in less active operations.

Returning to Sayville, we start for a drive to the west, and at the end of about four miles reach the club-house. It lies close to the shore of a lake, the extent of which we cannot see from the road. The lake nestles charmingly among the trees, and, although small, gives abundant sport to the Waltonian members of the club. It is the best possible place to seek a change from the city club, in the exclusiveness of which it shares, while it transcends it in freedom and society. Where could the *habitué* of the stately city club find a better retreat than in this picturesque building, with its surroundings of sport and charming scenery? He would find a change, but not so great a change; only a country version of the city life he loves. Keeping still further to the west, we pass the Lorillard mansion, and further off see the house occupied by the trainer of the great turfman's stud. We look back with some curiosity toward the cradle of the stars whose victories at Monmouth Park, Jerome Park, or elsewhere, are recorded every week, and conclude that in such a place, and with such advantages, it should not be a hard matter to carry off the honors of the course. About a hundred yards further we reach a point in the road commanding a magnificent view of the land sloping downward to the shore, and of the bay beyond, studded with innumerable sailing craft. Off in that direction, to the southeast, lies Fire Island, and across the intervening expanse of rippling water the yachts are moving like sea-birds on the wing.

As we return to our starting point let us answer an objection that may be raised, viz., that so far we have only looked at what may be called the wealthy side of Sayville. This course was adopted advisedly, for the reason that here the wealthy have been the pioneers. Prospecting like Joshua's spies, they "viewed the land," and finding it healthy, rich and pleasant, they chose their settlements, while Sayville was yet a *terra incognita* to the great mass of panting and enervated humanity in the cities. The rich residents have monopolized nothing but the ground they purchased. They only showed a discrimination worthy of emulation. All the attractions of Sayville are substantially as open to the man who can only snatch a week's holiday as to the millionaire.

Turning now to the east, we drive slowly through Blue Point, looking anxiously for signs of its great oyster industry, and finding it a clean, orderly town, lying a little nearer the beach than its neighbor, Sayville; drive on to a picturesque town, with the euphonious name of Patchogue. Here the Southern Railroad ends, and as we push on to Bellport the ride is made none the less enjoyable by the thought of being beyond the railway system. Everywhere we find the same variety of scenery, the same liberal distribution of attractions, the same proffered alternatives of occupation or amusements.

Our next excursion from Sayville was almost due north, through fine woods and farmlands to Lake Ronkonkoma, a sheet of water not nearly so well known as it deserves to be,

It lies almost seven miles from Sayville and two from Lakeland, in the very centre of Long Island. As we approach it from the south it presented a view of unexcelled sweetness and beauty. A light breeze faintly stirred its placid surface, and one or two small sailing boats gleamed in the sunshine against the background of hills and forest. Keeping to the eastern shore we mounted a gentle ascent, and soon found a point from which we could look down upon the lake spread out in all its splendor at our feet. Its Indian name signifies Sand Pond, but for what reason it was applied as a distinctive title we cannot discover. The greater part of the beach is pebbly and firm, and only at the northern extremities is of the character implied in its name. It is said to be about fifty feet above the waters of the sea, and to rise for seven years and then as gradually to fall for an equal period. A high bank of bluff bounds it on the east, and on the west the shore appears equally steep. A fringe of trees surrounds the lake. When we first viewed it the sun was rapidly sinking down to its couch in the west, and its reflection on the water and the gloomy boundary of forest and knoll made up a scene which very few imagine to exist within fifty miles of New York. To how many, we asked ourselves, is even the name Ronkonkoma familiar? After passing about half way around we turned and left it with regret, but with a resolve that in the hereafter a longer time should be devoted to the contemplation of its picturesque beauty.

And now let us turn to what, after all, is the great attraction of Sayville—its proximity to the sea. We reach the shore easily, and in a few minutes are in a catboat dancing over the waters of Great South Bay, tacking to starboard and larboard in the face of a breeze fresh from the ocean. Thirteen feet below us are the beds from which are taken the famous oysters of Blue Point, and soon we are being initiated into the process of oyster fishing. The wind is delightful, and as the boat skims along, the few miles between the shore and the Great South Beach are passed over unheeded. In about an hour we land on the beach, and are walking, with the sound of the ocean surf in our ears, up to the Ocean Pavilion. The Pavilion has just been opened, but bids fair to be a resort for sailing parties from every point on Long Island shore between Bellport and Babylon. As we reach the arbor the roar of the tumbling waves becomes louder, and in a few minutes we are in the presence of old ocean. The beach is nothing more than a narrow sand bank, separating the bay, and showing patches here and there of scrubby forest from the sea. Directly in front of us the great waves are dashing over all that is left of the wreck of the Vicksburg. Further to the west, about a quarter of a mile, the wreck of another noble vessel, the Great Western, lies broadside on the shore. There is matter enough here for moralizing if one is in the humor—two dismantled wrecks, the huge billows thundering over them, and a few sea-birds screaming above as the spray is thrown up in lofty jets. The wind was moderate, and far away near the horizon were the white sails of two ships, the only moving things upon the waste of waters stretching to the South and West. From a hillock of sand a view can be had to both north and south of the quiet bay, sheltered by the natural breakwater upon which we stand, and of the outside sea. At this point, as at Fire Island, the visitor has the option of bathing either in the surf or in the still waters of the bay. The hours pass swiftly in the enjoyment of the novelty, and of the invigorating breeze, and it is evening and dark before we board the yacht for the return trip. There was no moonlight, but the stars were out in brilliant myriads, and the skipper steered by the Pole star for lack of a light at the landing. A few sailing boats were out, and fitted past into the darkness, and as the wind was fair we returned to Sayville in about half the time it had taken us to go out to the Pavilion.

We have now given an idea of what can be seen and done at Sayville in the way of scenery and recreation, treating it as a centre of holiday operations. There is occupation to be found suited to every mood, and if visitors do not enjoy themselves we know where the blame should be laid.

"THE ONLY ILLUSTRATED."—From its "little fountain" flows forth a rill of authority on canine matters. *Prælo majores assurgit.*

We were honored by a call from Hon. J. Hayes Acklen, of New Orleans, last Saturday, who remains at the hotel Brunswick a few days.

ENLARGING.—Mr. Eugene Blackford is enlarging his quarters in Fulton Market. Surely this is evidence of prosperity, and we know of no one who deserves such better.

MUSIC.—Rudolph Aronson, on Monday evening last, formally opened to the public his Musical Emporium, at 41 Union Square. An enjoyable time it proved, several noted artists and amateurs participating.

—The mean mid-day temperature at New Smyrna, Fla., for the month of August was 84 deg. The maximum was 91 deg., the minimum 72 deg.

THE MASSACHUSETTS GAME LAW.—In another column we print a rejoinder from Mr. Lathrop. If the correspondents from our Massachusetts friends has done nothing more it has demonstrated the necessity of a better understanding and more unanimous action among the sportsmen of that State if the present inefficient law is to be improved. The question is of who made the old law, but how can more efficient legislation be secured.

GAME PROTECTION.

EDITOR FOREST AND STREAM :

Allow me a line or two in response to Dr. Ordway's letter of the 25th.

It is true I did make the original draft of the game bill that was submitted to the sportsmen last winter, but the objectionable clause was not in it then, but was "amended" into the bill afterward. I was not aware that I was "trying with bombast to belittle the hotel keepers and sportsmen of Boston." I only told facts, and without "bombast." I know that it is not attempted to enforce the law at Boston, and any law is "inoperative" that is not enforced. I am as anxious to get a good law as is Dr. Ordway, and I hope to see a good game bill some time, and should be glad indeed of all the "accumulated wisdom" and aid that the doctor or his society could give us in acquiring one. One thing, however, is true; but there must be more unanimity of opinion among sportsmen concerning close seasons and strict protection before we can attain supreme success. The "killed in the commonwealth" clause in the present bill was inserted by a sportsman, and so the bill was impaired by its professed friends. One thing is patent to all who have had to do with the passage of a bill in the Legislature, and that is that there are more antagonistic elements to meet, I believe, than there are concerning fish legislation. The hotel keepers make merchandise of birds and proclaim that they will serve them, whatever the law is, when they please (and this in Boston, too), and the farmers are largely jealous of game protective laws, and they must be conciliated and convinced. Even sportsmen with diverse views block successful issue. But in the happy time to come, Doctor (perhaps when we are all dead), the game laws may be made perfect. I hope we both may live and see it, and to that end I work; and believe me I do not detract from the "Anglers' Association" a particle of praise to which they are entitled. I am glad the Doctor announced that he prefers "Mr. Hallock's opinion on the legality of any fish or game law" to mine. A most excellent choice, no doubt, for it leaves me what I prefer—my own opinion.

The types made bad work in one place in my last letter. In that part giving the illustration of A selling game to B, "killed in town" should be "killed in Conn." *Springfield, Aug. 31, 1877.* E. H. LATHEOP.

Philadelphia, Sep. 7.—Wm. B. Elliott, formerly Collector of Internal Revenue for this district, was arrested on the 4th inst. by agents of the Philadelphia Sportsmen's Club, for violation of the game laws of this State, having killed fourteen rail birds before the season. He was fined the usual amount (five dollars for each bird) and costs, seventy-six dollars, making it rather expensive shooting. This is the second time Mr. Elliott has been arrested for a similar offence.

Robert Swan and John J. Kennedy were also arrested for shooting reed birds out of season, and for shooting on Sunday, on the marsh near Darby Creek. They were taken before Mayor Forewood, of Chester, and fined.

Several other arrests have been made by the Agents of this Club, who are doing their utmost to enforce the game laws.

THE GAME LAWS IN NOVA SCOTIA.

HALIFAX, Sept. 1, 1877.

EDITOR FOREST AND STREAM :

The 1st of September is a great day with sportsmen among the stubble fields of Old England, and here in Nova Scotia too, in a smaller way, we have some excitement among the lovers of field sports, for on this day commences the open season for woodcock (*Philohela minor*)—the finest and most delicious of American game birds. Hares and rabbits may also be legally killed from this date. Partridge shooting will commence on the first of October. This day is also especially interesting as making an epoch in the history of the game laws of Nova Scotia—for the old laws which for the last three years have been in force expire, and the new law comes into operation—under this law it will be lawful to kill moose and cariboo during the months of October, November, December and January. Not more than three moose and five cariboo can be lawfully killed by any one person or number of persons forming a hunting party in any one season. Another new feature introduced is the issuing of game licenses, about which I would like to say a word, if you will kindly give me space, as it is a novelty in colonial legislation. First of all, let me remind those disposed to carp at it, of the great advantages a sportsman in the colonies enjoys over his brethren in England. There you cannot hang a gun over your mantelpiece (if it is only to kill cats in your backyard) without having to pay a gun license of ten shillings; then you have to pay from three to four pounds sterling for a shooting license; and that is not all, for you must then bargain with the owner of the preserves, who perhaps will not let you shoot at all. In this country, until now, the game of our forests has been free to all as the air we breathe, and because the withdrawal of the Government grant (from which the Commissioners and Wardens salaries were paid) has necessitated the imposition of a small tax, a shout of indignation, I understand, has arisen from a certain class, who, I think, should be very thankful that they are let off so easily.

The arguments in favor of the system (if any such were needed) are briefly contained in the following extract from my last report to the Government :

"The game is appurtenant to the soil, and belongs to the people of Nova Scotia, just as much as in England it does to the lord of the manor. Our forests are the people's preserves, and if we protect them we have the right to regulate the way in which they are to be used. The inhabitants of Nova Scotia have to contribute to the general revenues of the Province in order to carry on the different departments of the public service. Out of these revenues a certain sum has been expended for the last three years to defray the expenses of preserving the game. Is it fair then that outsiders, who pay nothing, should step in and enjoy the benefits which have resulted from this protection, equally with those who had to bear the burden of the expense, and the responsibility and trouble of

carrying out the laws? I do not anticipate that there will be much opposition to the proposed amendment. A clause is inserted in the act providing that no person, not having his domicile in Nova Scotia, shall enjoy the privileges of the game laws unless he first obtain a license from the Provincial Secretary's office, signed by the Chief Game Commissioner and countersigned by the Provincial Secretary or deputy, for which he shall pay twenty dollars into that office. Licenses to be in force for a year.

"Officers of the Army and Navy on service in this garrison are placed in a different category, and it is proposed to issue licenses to them on the payment of five dollars a year, to which I think there can be no reasonable objection. In addition to the justice of this enactment in itself, there is another reason in its favor which should have some weight. It is proposed that these license fees should be paid into the Provincial Secretary's office, and form a fund toward defraying the expense of carrying out the law."

The game licenses have been very neatly printed by the Queen's printer, and can be procured in the city at the Provincial Secretary's office, or from the Chief Game Commissioner; and in the country, in Queen's County, from W. S. Crocker, Game Commissioner, Brookfield; from Game Commissioner A. Bigney, Wentworth, Cumberland County; E. C. Dawson, New Glasgow, Duncan McDonald, English Town, Victoria Co., C. B.; D. W. Arichibald, Sheet Harbor, and Samuel Murphy, Mount Uniacke, and from Game Wardens, W. S. Gilpin, Digby; Thomas Kirk, Jr., Parrsboro; Ephraim Cook, Acadia Mines, Londonderry, and John J. Smith, St. Mary's; and the Issuers of Marriage Licenses in the following places: Liverpool, Digby, Yarmouth, Shelburne, Amherst, Sydney, C. B., and from Thomas Crosskill, Bridgetown, Annapolis Co.

The Game Protection Society has endeavored by every means in its power to give the utmost publicity to the new law by the distribution of hundreds of large posters throughout the Province, and by printing it in pamphlet form which can be procured from the Secretary. And although I am well aware of the legal maxim, *Ignorantia legis non excusat*, yet our object is to remove all possible cause of complaint on the part of those who, when detected, may seek refuge for their offense in alleged ignorance of the law.

The law which to-day comes into operation is undoubtedly sound in principle, as it is nearly perfect in detail, and it only remains for its friends to see that it is enforced.

The withdrawal of the Government grant no doubt will create some difficulty, but I am happy to say that all the Commissioners and Wardens, without an exception, have agreed to continue their services gratuitously for this year in the hope that next session the small grant (\$1,950) will be renewed. Of course they cannot be expected to give the same time and attention to it as when they were paid officials, but yet it is gratifying to find them willing to do what they can. I call the attention of policemen, market clerks, etc., to the clause of the act affecting them as follows :

"13. It shall be the duty of all Justices of the Peace, Stipendiary Magistrates, constables, policemen and market clerks to enforce the provisions of this act and of any other enactment for the preservation of useful birds and animals, whenever the infringement thereof comes under their notice, under a penalty of not less than \$10 for each omission of duty."

A knowledge of these facts may be of benefit to those of your readers who may contemplate visiting Nova Scotia next month, as it contains a list of parties from whom game licenses can be procured without the necessity of coming to Halifax. The class to whom I allude as objecting to the licence clause I need not tell you are not American citizens, several of whom have already taken out their licences and paid the fee without grumbling.

FITZ COCHRAN,  
Chief Game Commissioner.

ILLINOIS GAME LAWS.—The Revised Statute of Illinois for 1877, Section 1, reads: "That it shall be unlawful for any person or persons to hunt or pursue, kill or trap, net, ensnare, or otherwise destroy any prairie hen or chicken or any woodcock, between the fifteenth day of January and the first day of September in each and every year; or any deer, fawn, wild turkey, ruffed grouse (commonly called partridge) or pheasant, between the first day of February and the first day of October in each and every year, or any quail between the first day of February and the first day of November in each and every year, or any wild goose, duck, snipe, brant or other water fowl between the first day of May and the fifteenth day of August of each and every year."

—Apropos of a tinker having been sentenced to two months' imprisonment with hard labor for breaking the leg of a game fowl, the *Pall Mall Gazette* thinks it unfortunate that the fellow should have been tried before Justice Partridge.

VIRGINIA FISH AND GAME ASSOCIATION.—This association, of which Mr. Chas. T. Palmer is the President, is to hold a meeting at Richmond, on Wednesday of fair-week. The society is actively engaged in preparing casts of the fishes of the State for exhibition on that occasion. Gen. Vance is to make a speech, and all possible efforts are to be employed to secure public attention to this important subject.

To persons seeking healthful recreation and enjoyment, without being subjected to the usual annoyances of "fashionable" sea-side resorts, the Franklin House, Plymouth, Mass., affords unusual opportunities, having unusual facilities for harbor, river or surf bathing, while splendid opportunities for boating in either smooth or rough water may be enjoyed at choice. Cooling breezes, comfortable rooms, a well supplied table, and a reasonable scale of prices are all to be found here.

NOTICE TO SPORTSMEN.—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting. P. O. Box 1,294.—Adv. ABBEY & IMBRIE, 88 Maiden Lane.

OUR WASHINGTON LETTER.

SHOOTING ON CHINCOTEAGUE ISLAND—WILLET, CURLEW, GRAYBACKS, ETC.—FATAL ACCIDENT—MARSH SHOOTING—ADVANTAGES OF ADVERTISING IN FOREST AND STREAM, ETC., ETC.

WASHINGTON, D. C., Sept. 5, 1877.

CHINCOTEAGUE ISLAND on the coast of Virginia, is so rapidly becoming a favorite resort for sportsmen not only from Washington, but from New York, Philadelphia and Baltimore, that a brief description of the place, the shooting, fishing, etc., it is hoped may be interesting, now that the birds are plentiful and the accommodations for visitors ample. What known as the Eastern Shore of Virginia is a peninsula composed of Accomack and Northampton Counties, lying between the Atlantic Ocean and Chesapeake Bay. Chincoteague Island is in the Atlantic, just east of Accomack County, and separated from it by a body of water known as Chincoteague Bay. The shores of this bay on both sides are covered by extensive salt-water marshes which furnish abundant food and ample shelter for willet (*Totanus semipalmatus*), gray backs (*Tringa canutus*), long billed curlew (*Numenius longirostris*), Esquimaux curlew (*Numenius borealis*), and various species of snipe, sandpipers, and other birds usually found upon the salt marshes of our middle districts.

General W. D. Whipple, of General Sherman's Staff; Col. Harry Clark, the efficient Washington agent of the National Press Association, and Master Walter Whipple, a son of the General, recently spent a week at Chincoteague, and had magnificent sport, although the season was just opening. Upon their arrival there they found the hotel crowded with summer visitors from Baltimore, Philadelphia and other cities, but fortunately they were provided with letters of introduction to Lieut. Herring, commanding the revenue marine schooner Report, and that officer had them comfortably quartered. One of the crew of the vessel proved himself to be an excellent cook, and the birds killed during the day were served by him in a style not to be excelled by any professional.

Willet were found to be most plentiful, as they breed in the marshes surrounding the island. Indeed this bird I believe breeds all along the coast from the mouth of the Mississippi to New York, but passes the winter on the shores of South Carolina, Georgia, Florida, and the Gulf coast, where it is known as the stone curlew. The propensity of the bird to remain in the immediate vicinity of the coast is such that it is seldom met with inland even along the shores of large rivers. It is at all times shy and wary, so that in approaching it the sportsman must use the greatest caution. After being once shot at, they watch your motions very closely, and the cry of one bird seems to alarm all within hearing. When wounded and brought to water they swim tolerably well but cannot dive. The young birds now are fat and juicy, and the breeding season being over they are found in flocks, it being their habit for several families to join after that season and live harmoniously together.

The long-billed curlew, the largest of this species found in North America, is the only one which may be classed as a permanent resident. It breeds to a great extent about Chincoteague, though not so abundantly as on the more southern coast of the United States. They are not easily approached, and, besides, it takes a good charge to bring them down. When wounded they skulk off among the thickest vegetation, where they remain perfectly silent. The flesh of this bird does not compare with that of the willet as a delicacy, although many persons consider it good, and they are always found for sale in our Southern markets.

The gray-backs, or red breasted sand pipers, when young and fat, are very palatable. In season they are plentiful, feeding on the small shell fish found at a short distance below the surface, oftentimes in heaps like masses of wet grain. But to give an extended description of the many desirable birds found in the neighborhood of this island would be almost impossible. It affords delightful sport in fishing as well as shooting. Oysters are abundant, and probably there is no place on the Atlantic coast, where the sportsman can enjoy himself more than at Chincoteague. There are a number of persons residing in that vicinity who make a business of furnishing boats and piloting them in search of sport. The gentlemen named who recently visited the island were fortunate enough to secure the services of a veteran guide named Decatur Birch, commonly known as "Cate." He provided the boat, and conducted them to the most desirable shooting places for the very moderate sum of two dollars a day. He is thoroughly posted in his business, and his services are well worth that sum. The hotel at Chincoteague is four stories high, containing about forty-eight rooms, and it should be advertised in the columns of FOREST AND STREAM AND ROD AND GUN, which would greatly add to its popularity and let sportsmen know something about the facilities which the proprietor has to care for them.

The route to the island from New York is by the line of the Old Dominion Steamship Company to Lewes, Delaware, as will more fully appear by reference to the advertisement of that company in another column. There are also other routes thereto from Philadelphia and Baltimore.

A distressing accident occurred on one of the marshes near this city yesterday, which resulted in the death of a youth about fourteen years of age. By some accident the load in the gun in the hands of his companion was discharged, and the contents lodged in the boy's head, causing death in a few hours. It is too often the case that boys not large enough to

level a gun are permitted to go with companions who are reckless, and numerous accidents result therefrom.

Many ortolan have been killed on the marshes in the neighborhood of this city, but reed birds thus far are very scarce.

There is an absurd law here which forbids the shooting of ortolan and reed bird before the 5th of September, and a still more absurd one passed by the authorities of Prince George County, Md., which prohibits the shooting of them on the marshes of the Patuxent prior to the 15th of September.

Some of our Washington tradesmen who make a specialty of goods used by sportsmen, would do well to follow the example of Mr. Geo. C. Henning, the enterprising tailor, who offers very good articles in the shape of hunting suits, shooting coats, etc., and makes known his goods through the advertising columns of FOREST AND STREAM AND ROD AND GUN.

The Rifle.

THE INTERNATIONAL MATCH.

In our next we hope to give the full story of the great international match, and chronicle for the seventh time a victory for the "Yankee lads." Saturday last the practice was brought to a finish. The close of this preliminary practice gives opportunity for a brief comparison before the final struggle, and certainly the British chances do not seem very bright in such a bringing together of statistics.

Table with columns for American Team scores across various dates (Aug. 21, Aug. 22, Aug. 23, Aug. 25, Sept. 4, Sept. 5, Total).

BRITISH TEAM.

Table with columns for British Team scores across various dates (Aug. 21, Aug. 22, Aug. 23, Aug. 25, Sept. 4, Sept. 5, Total).

This would show an average score per day of 1,569 for the English, against 1,609 for the American team. It is noteworthy, too, that the three Irishmen head the British side, followed by the lone Scotsman, these four gentlemen shooting the Rigby rifle, while the four Metford shooting Englishmen foot the squad.

The competition is against the best team which Great Britain, the only long-range shooting nation of Europe, can produce. On it the Englishmen have rested their entire hopes, and their assertion in advance that a victory for American riflemen during the present week will leave them beyond dispute the master marksmen of the world, gains point from the claim of the English rifleman last year that a success over the Scotch, Irish, Australian and Canadian riflemen was but a divided victory after all, and not until

the imperial team is defeated will the British representatives fail to consider themselves as good as the best. With a bot day victory is almost certain to the home squad; with a broken, tempestuous day, the balance may incline either way, while with a fish-tail wind and undefined light poor scores may throw a nominal victory on either side.

THE FALL MEETING AT CREEDMOOR.

With fine weather and pleasant surroundings of wind and sky, the fifth annual fall prize meeting opened at Creedmoor on Monday morning last, with every promise of a most successful carrying out. Careful preparation had been made, and the details worked more smoothly than at any previous gathering.

The morning opening with a full line of 200-yard targets, from side to side of the range, ready for the peppering of the 217 entries of the Judd match, which was entered upon at 9 o'clock, and fired off without special interest, other than an unequalled-for bit of impertinence inflicted upon Lieut. Penton of the British team by a sprout of a scorer.

Table listing names and scores for various matches including E.W. Whitlock, W.H. Glider, S.S. Bunstead, W. Ferguson, W.C. Reilly, J.W. Maher, G.D. Hobart, A.F. Finiels, W. Brockhoff, J.L. Boutillier, W.M. Barrow, J.R. Grohman, E.W. Bard, J.C. Reamer, E.P. Wilson, S.V. Kennedy, A.C. Crosey, E.H. Sanford, I. Buchanan, S.F. Kueiland, E.H. Ladd, E.N. Snook, J.P. Warren, T.R. Murphy, E.D. Snier, E.H. Sanford, C.G. Zettler, W.N. Ferguson, E.W. Whitlock, Philip Klein, W.H. Jackson, D.F. Davids, J.K. Miller, W.H. Reed, S.H. Halford, F.T. Piggott, W.H. Glider, C.E. Rider, J.C. Reamer, F.N. Holbrook, J.E. Stetson, A.B. Bailey, Geo. White, A.K.P. Bennett, H. Hook, C. Nash, J. Boles, H.J. Quinn, Jos. Penton, S.S. Barnstead, J.G. Newbury, Chas. Renaud, G.W. Davidson, J.B. Pradenburgh, C.H. Jolir, Chas. Halstead, S. Kenndy, W. McCormick.

The short-range match followed close upon the Judd match. The only difference between the matches being in the matter of rifles—in the one match of military pattern, and in the other of any build. The scores did not seem to show any very decided improvement on an average, and the leading score stood the same in each match.

Table listing names and scores for various matches including E.D. Snier, E.H. Sanford, C.G. Zettler, W.N. Ferguson, E.W. Whitlock, Philip Klein, W.H. Jackson, D.F. Davids, J.K. Miller, W.H. Reed, S.H. Halford, F.T. Piggott, W.H. Glider, C.E. Rider, J.C. Reamer, F.N. Holbrook, J.E. Stetson, A.B. Bailey, Geo. White, A.K.P. Bennett, H. Hook, C. Nash, J. Boles, H.J. Quinn, Jos. Penton, S.S. Barnstead, J.G. Newbury, Chas. Renaud, G.W. Davidson, J.B. Pradenburgh, C.H. Jolir, Chas. Halstead, S. Kenndy, W. McCormick.

Recess was now for a time the order of the range, and while the marksmen scrambled for beer and sandwiches, the only provender accessible, the old-range targets were changed from 3d to 2d class, in anticipation of the afternoon's mid-range work. On the new range the cavalry proceeded with their carbine match at 200 yards, and for the first time in ever so long the Yates men did not have everything their own way, and the "water cooler" which the Syracuse men so feared to get will not yet fall to their lot.

WASHINGTON GREY TROOP. Table listing names and scores for Capt. L.T. Baker, Sergt J.P. McHugh, Lieut A.T. Decker, Priv G.E. Pascoe, Separate Troop, Fifth Brigade (Brooklyn), Gating Battery, Eleventh Brigade (Brooklyn), Separate Troop, Twenty-fourth Brigade (Oswego), etc.

At the 500 yds. range two matches were contested—first, that for the Army and Navy Cup and then that for the Gating Gun. The first is open to the entry of teams from any military organization, but the militia were the only contestants, though it was hoped and expected that a team from the Willlets Point Engineer corps would represent the regular army.

Open to teams of twelve from all regularly organized military organizations in the United States, including regular army, navy and marine corps. Weapon, such military rifle as has been issued at the public expense to the organization which the team represents. Distance, 500 yards. Rounds, seven; position, any within the rules. Entrance fee, \$1 each competitor.

Table listing names and scores for various matches including Lieut Col C.V. Houghton, Captain A Curtis, Sergeant A. Barton, Sergeant G.A. Barton, Lieutenant S. Barton, Private George White, Sergeant L. Barnes, First Calhoun (H. Mich), Private R.G. Post, Sergeant J.C. Harding, Private J.L. Wood, Private J.P. Hall, Second Regt of Conn., Seventy-first, N.Y., Eighth, N.Y., First Calhoun (H. Mich), Forty-ninth, N.Y., Forty-fourth, N.Y., Twenty-third, N.Y., Fourteenth, N.Y., Lieutenants J. Barton, Captain A Curtis, Private George White, Sergeant G.A. Barton, Corporal A. Crosby, Lieut-Colonel C.V. Houghton, Sergeant L. Barnes, Private W.H. Finn, Private J.P. Hall, Private R.G. Post, Private J.L. Wood, Sergeant H. Harding.

The Gating Gun Match, fought at the conclusion of the Army and Navy Match, was another success for the Oswego men. The Seventh made a strong bid for the gun, but the "woodchuck" shooters proved too much for them, and a second first prize was booked for Oswego. The record of the match showed (open to teams of twelve from any regiment or battalion in the State of New York; weapon, Remington State model, 500 yards, seven rounds, any position):

Table listing names and scores for various matches including Lieutenants J. Barton, Captain A Curtis, Private George White, Sergeant G.A. Barton, Corporal A. Crosby, Lieut-Colonel C.V. Houghton, Sergeant L. Barnes, Private W.H. Finn, Private J.P. Hall, Private R.G. Post, Private J.L. Wood, Sergeant H. Harding.

Table listing names and scores for various matches including Capt C.P. Robbins, Priv Geo Waterman, Priv G. Gardner, Priv J.W. Gardner, Priv J.H. Teackle, Priv J.P. Barrill, Priv E.W. Linton, Priv E.W. Linton, Capt J.L. Price, Priv A.T. Riker, Total, etc.

The first stage of the Champion's Match was fired through by the seventy-seven entrants at 200 yards, and out of the possible 50 no less than three 47's were made by Fulton, Capt. Burns, of California, and G. L. Moore, of Yonkers. There was some shooting at the running deer during the day. The repeating rifle, which was the day prize, was taken by an officer of the association, together with a liberal amount of maledictions for the manner in which the match was summarily closed by another member of the directory. At present we can only say that the match ended very abruptly.

The second day of the fall meeting at Creedmoor passed off even more uneventfully than the first. Three team matches for the State and First and Second Division prizes filled the programme. There were no protests, no charges of unfair play; and while there were, of course, many disappointed teams, the results were arrived at after full, free, open debate on the part of all. The same excellent order which marked the first day was again maintained. The morning was given up to off-hand shooting in the opening stages of the three matches named. During the afternoon hours the 500-yard stages were contested, and long before sundown the closing gun had been fired, the conclusions announced and the men were either snugly under canvas in their tent houses on the range or were off cityward.

The State match was a genuine surprise, the great majority of those who have been watching the performances of the team were of opinion that the 48th Oswego Regt. would be the lucky squad, and particularly was the opinion held after their brilliant victories in the Gating Gun and Army and Navy Cup matches of the day before. At the 200-yard range the 7th Regt. were leading, though they were closely pressed. In opening at 500, however, Capt. Jas. L. Price, of the 7th team, made a curious blunder, and through his oversight lost his score at that range. When the gun fired announcing the opening of the second stage of the match Capt. Price was at the pool target, and forgetful of the rule which says, "Any member of a squad or firing party who shall absent himself without leave during the firing, or fire a shot from any other firing point before the squad has completed its shooting (except in pursuance of orders) shall be disqualified in that competition." As Capt. Price had fired at the pool target after

ate match had opened for the second stage, his score at that range was declared void by the executive officer when his attention was called to the circumstances of the case. But even without this the 7th team would have had only fourth place, the 14th team having a safe first by 13 points over the 23d, and 17 over the 48th boys. The "Woodhuck" was fairly ranted, and while they have done well and shown themselves fit to rank with the first, the Oswego men did not hold their own against the red-capped representatives of the Veteran Regiment of Brooklyn. (Open to teams of twelve from each regiment or battalion of infantry of the National Guard of the State of New York; all competitors must appear in the uniform of their corps; distance, 200 and 500 yards; position, standing at 200, any at 500; weapon, Remington rifle, State model; rounds, five, at each distance; cun- dance fee, \$1 each; sixteen teams competing; first prize, State trophy, presented by Governor Robinson, value \$500; second prize, \$100 trophy; third prize, \$75 silver vase, and fourth prize, a \$50 trophy.)

Table with 3 columns: Name, 200 yards, 500 yards, Total. Includes Priv Robertson, Sergt Browe, Priv King, Corp Harvey, etc.

Table with 3 columns: Name, 200 yards, 500 yards, Total. Includes Priv Stearns, Priv Albers, Corp Weber, etc.

Table with 3 columns: Name, 200 yards, 500 yards, Total. Includes Priv White, Sergt Barton, Priv Crosby, etc.

Table with 3 columns: Name, 200 yards, 500 yards, Total. Includes Lieut Beaman, Sergt Ward, Capt Dover, etc.

Table with 3 columns: Name, 200 yards, 500 yards, Total. Includes Lieut Beaman, Sergt Ward, Capt Dover, etc.

In the First Division match there was a good fight for first place, and notwithstanding that the Seventh secured a lead at 200 yards, the superior shooting of the Scotch element in the Seventy-first Regiment team secured them the honors, after a close round, at 500 yards. It was, in fact, a victory for the old Seventy-ninth Highlanders, and "Auld Scotia" and her sons felt proud of their power. Of the nine regiments in the First Division, six only were represented, the Twenty-second (Col. Porter), Fifth (Col. Spencer) and the Eleventh (Col. Umbekant) being the absentees. The full scores stood (Open to teams of twelve from each regiment or battalion of infantry in the First Division, N. G. S. N. Y.; competitors to appear in uniform and shoot with State model rifle; 200 and 500 yards; 5 shots each distance; position standing at 200, any at 500; first prize, the Division trophy, value \$100; second and third prizes of \$75 and \$50, respectively; six teams competing):

Table with 3 columns: Name, 200 yards, 500 yards, Total. Includes Pyle, Williams, Steele, White, etc.

Table with 3 columns: Name, 200 yards, 500 yards, Total. Includes Starr, Murphy, Cochran, Dewar, etc.

Table with 3 columns: Name, 200 yards, 500 yards, Total. Includes Ward, Beaman, Sergt Engle, etc.

The Second Division match drew out all the Brooklyn organizations into a lively team contest. Capt. Farley almost got his Fourteenth Regiment team to the front for the second point, failing but one point of victory, which followed the usual course of other years in going to the Twenty-third team. The scores ran (Open to teams of twelve from any regiment or battalion in the Second Division, N. G. S. N. Y.; other conditions as in First Division match; all the seven organizations of the Second Division represented):

Table with 3 columns: Name, 200 yards, 500 yards, Total. Includes Stearns, Frothingham, Albers, etc.

Table with 3 columns: Name, 200 yards, 500 yards, Total. Includes Corp Henwood, Capt Fagan, Priv Smith, etc.

Table with 3 columns: Name, 200 yards, 500 yards, Total. Includes Lieut Gerst, Priv Hogg, Priv Darveau, etc.

New York—Waverly.—The Waverly Rifle Association's contest for the silver cup presented by E. F. Wells, ended in favor of D. D. Knapp, the secretary of the club, at their range a few days since; shooting 15 shots each; distance 800, 900 and 1,000 yards. The wind varying as usual through the Shepard Ravine from 0 to 3 points side and rear. The scores stood:

Table with 3 columns: Name, 800 yds, 900 yds, 1000 yds, Total. Includes D D Knapp, G N Fish, A Hildebrand, etc.

THE NEVADA BADGE.—A Co., Forty-eighth Regiment, N. G. S. N. Y., shot for the Nevada badge on the 6th inst., and their score is certainly a most excellent one. Last year they were successful on a score of 25 19-46 per man, shooting 46 men in the company. By a change in the conditions, they were this year permitted to shoot with a minimum of 35 men, and the average leaps to 33 47.100 per man out of the possible 50. The aggregate last year with 46 men reached 1,169 points; this year, with but 35 men, the total reached 1,171 points. The Oswego Times is happy, and yet sees a looming danger in the success of its friends, saying: "This score is likely to discourage competition. Up to this time no other company has announced its intention of competing for the badge, and after this score is announced we hardly think any of them will care to shoot against it." The weather conditions during the match were fair, and the shooting was witnessed by Col. Manning, Division Inspector of Rifle Practice, and Major Chapman, Engineer of the Twenty-fourth Brigade. The range totals stood:

Table with 3 columns: Name, 200 yds, 500 yds, Total. Includes E J Bell, J S Barton, Geo White, etc.

MASSACHUSETTS—Walnut Hill.—The final contest for places on the inter-State team, representing the Massachusetts Rifle Association, was held at the Walnut Hill ranges, Sept. 5, and the team determined upon as follows: W. H. Jackson, James Wemyss, Jr., A. P. Clarke and C. C. Hebbard, with Wm. Gerrish as reserve. The leading scores at the final test stood:

Table with 3 columns: Name, 800 yds, 900 yds, 1000 yds, Total. Includes C C Hebbard, Wm Gerrish, A Hebbard, etc.

MICHIGAN—Detroit, Sept. 5.—At the return match between teams of the Windsor (Ontario) Infantry and Detroit Light-guard, the scores were as follows, Creedmoor target and rules:

Table with 3 columns: Name, 800 yds, 900 yds, 1000 yds, Total. Includes N Washburn, F Wether, G T Wood, etc.

Table with 3 columns: Name, 500 yds, 600 yds, Total. Includes J L Woodbridge, S A Hubbard, G A Yale, etc.

In the "all-comers" match at 500 yards, with any rifle .40 cal. or under, Nathan was again to the fore, and out of a possible 50, scores stood:

Table with 3 columns: Name, 500 yds, 600 yds, Total. Includes N Washburn, S A Hubbard, G T Wood, etc.

STRONG SHOOTING.—The National Rifle Club held their twentieth annual meeting on the 5th and 6th insts., at South Vernon, Vermont, on grounds near the railroad depot, and not far from the club's headquarters at "mine inn" of D. S. Priest, whose judicious arrangements left nothing to be desired by rifleman or layman. The weather was clear, but the wind high and too shifts for close shooting. The attendance of members, as also of lookers on, ran larger than usual. The order of the day was: Three ten strings at 40 rods, position and rest without restriction; standard weight of rifle, 15 lbs.; every excess handicapped under the rules of the club; a prize, pro rata, to each of the best three of every ten string, and the medal to the best aggregate. Following are the scores in inches, 8ths and 16ths, of the respective winners:

Table with 3 columns: Name, 10 strings, 20 strings, Total. Includes First String—N S Brookway, Second String—N Hatch, etc.

Best aggregate, President J. Williamson, N. Y., 43.2.0. New York—Oswego, Sept. 6.—Company A, of the Forty-eighth Regiment, shot here for the Nevada badge, under the new rules, with 35 men, scoring 1,171. Last year, with 45 men, their score was 1,169.

Twelve clubs have now entered into affiliation with the National Rifle Association.

WISCONSIN—Milwaukee, Sept. 3.—The officers elected at the last meeting of the rifle club are: Pres., John Johnston; Vice Pres., Gen. E. W. Hincks; Sec., Chauncey Simonds; Treas., D. B. Frankenberg; Ex. Com.—H. P. Hale, Jno. R. Goodrich, H. Drake; Finance Com.—C. T. Hawley, John Nazro, O. B. Hopkins; Range Com.—J. C. Weiles, E. Bangs, E. Fielding.

A REPLY TO THE SCOTSMEN.—As a fitting final movement to the flow of correspondence following the Scottish protest, the subjoined letter has been sent from this side. It must be understood once and finally by all who enter upon the contest for this trophy, that the "conditions as established and construed by the Board of Directors" are to hold binding upon the trophy wherover it may rest, and whoever shall contest for and win it, with any mental reservations on any of the points in dispute, takes a dishonest and ungentlemanly course of procedure and acts under false pretences in the matter.

THE NATIONAL RIFLE ASSOCIATION, OFFICE, 25 Park Row, New York, September 7, 1877.

Dear Sir—I have the honor to inform you that at a meeting of the Board of Directors of the National Rifle Association, held on Thursday, Sept. 6th inst., your letter of 21st August, referring to letter of 28th July, previously received and enclosing newspaper copy of a letter from you to Mr. H. Koss, was presented, and the Secretary was thereupon directed to acknowledge the receipt of your letter, and inform you that the conditions to govern Competitions for the American Centennial Trophy originally established, and as construed by this Board of Directors, cannot now or at any time hereafter be altered either by the Board of Directors or by any other authority.

I am, Sir, with great respect, your obedient servant, GEO. S. SCHERMERHORN, JR., Secretary National Rifle Association.

THE CANADIAN MATCH.—In the account given in your last issue of the American-Canadian match by your Toronto correspondent I notice some inaccuracies which I trust you will allow to be corrected. 1st. Bell used a Rigby rifle, not a Metford, and Gibson used a Rem. Creed., not a Metford. 2d. It is scarcely accurate to say that the only opportunity offered to the American's practice was by their taking part in the small bore matches in progress on their arrival. A target had been set apart specially for their practice. This target they used in the competitions, shooting by themselves with the usual coaching of a practicing team. 3d. It is ungenerous to say that the Canadians expected to achieve an easy victory. It would be stating facts more accurately to have said that the Canadians expected a more decisive defeat. 4th. Your correspondent lays too much stress on the absence of coaching on the part of the Canadians, and not enough on the fact that of the four Canadians who used the Remington three had then only a short time in practice, and have not yet learned all that is to be known in the successful management of that rifle. The Canadians are by no means discouraged by the result. They have had great pleasure in welcoming the Americans on Canadian ground, and I trust that efforts will be made by them to put in a creditable appearance in next year's contest for the Centennial Trophy. J. M.

HAMILTON, Sept. 10, 1877.

THE GARDNER GUN.—Captain William Gardner, who has perfected the actions of several superior guns for both sporting and war-like uses, has been exhibiting at Newport his new invention. The gun has but a single barrel, and weighs only forty-three pounds, or little more than than one-ninth the ten-barrel Gatling gun, whose weight is 350 pounds, while the French mitrailleuse, with thirty-seven barrels, is still heavier. Captain Gardner's gun is supplied with cartridges, which are placed in a vertical slot, ten at a time, and thence forced by a rapidly revolving crank into the barrel chambers when they are discharged. With two men to work it, one to feed and the other to turn, the gun discharges 300 bullets per minute. The report has been likened, by a newspaper correspondent, to that of a sharp r-r-r-r-r. At one of the experiments with this formidable piece, in the presence of army and navy officers, at a range of fifty yards it cut a tough white oak timber nearly twelve inches square in two in forty-five seconds. The inventor has fired it in the presence of an army officer 2,600 times without the loss of a second, and that while the gun was then found to be foul, it was in perfect working order; nor was it heated to a degree that rendered it necessary to discontinue the firing. This result, it is said, is secured by giving a greater weight of metal to the one barrel than is given where a number of barrels are brought together. Altogether this arm surpasses anything heretofore invented. With batteries of Gardner guns the Turks and Russians ought to make short work of each other.



National Pastimes.

NEWPORT ATHLETIC GAMES.—The Athletic games under the auspices of the Westchester Polo Club, Sept. 5 were highly successful, the entries being as follows:
One-mile Walk—Entries: J H Armstrong, Jr, of New York, and E E Goddard. Won by Armstrong in 12m 54 1/2s.

day on their club grounds at Mott Haven. The events were:
One Hundred Yards Run—First Series—First Heat—H H Lee, University of Pennsylvania, 1; F B Potter, W B C, West Troy, N Y, 2. Both men under the rules were in the second trial heat, they therefore took their time, Lee finishing one foot in advance. Time, 11 1/2s.

Pitney, Jr; one-legged race by F Merrill; hurdle race by F Merrill in 13s.
CHECKER SCORES.—The St. George's Club of this city lead among local clubs, they having played four games, of which only four were lost. Of ten games State Islanders have won five. The Manhattan score five victories out of seven games. Other scores are:

It was held at Cronstadt, near Stuttgart, and a column composed of the fruits of the harvest was erected and processions and games with music and dancing indulged in. Of this the present festival is a lineal representative. The queer sport of the rabbit hunt is said to have originated two or three hundred years ago, in this wise: Seven villagers, anxious to imitate their lords in the chase hold a council to decide where and what they should hunt. While busily engaged in the discussion a rabbit chanced to enter the room through an open door, and the assemblage, filled with the terror inspired by accounts of encounters with wild feres, hoars and wolves, fainted, and fell from their chairs. Recovering, one of the number encouraged the others to make an escape, and in their rush to pass through the narrow doorway one of the number was thrown down and trampled upon. He fell upon the innocent cause of their alarm—the rabbit—which had been leaping in and about the doorway. Missing him, the villagers got together a small army and returned to rescue him. They found him lying senseless upon the dead body of the rabbit. Their comrade they bore home on a litter, and the rabbit they carried in triumph by a spear through his ears.

THE SONG OF THE OYSTER.

Oh! a jolly old bird is the oyster fish,
As he sits in his pearl shell,
A thinking how many a delicate dish
He can make when cooked well—
Broiled or roast,
Served on toast,
Or raw on a dainty platter;
Escallop or stew,
Either will do,
Or fried in crumbs or batter.

THE MOCKING BIRD.

Superb and sole, upon a plumed spray
That o'er the general leafage boldly grew,
He swoop'd the woods with song or type drew
The sum of hungry hawks, the lone dismay
Of languid doves when long their lovers stray,
And all birds' passion-plays that sprinkle dew
At morn in brake or besky avenue,
What e'er birds did or dreamed, this bird could say.

Tiffany & Co., Silversmiths, Jewelers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. TIFFANY & CO. are also the agents in America for Messrs. PATEK, PHILIPPE & Co., of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones, General Jewelry, Artistic Bronzes and Pottery, Electro-Plate and Sterling Silverware for Household use, fine Stationery and Bric-a-brac, is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York.

A "RETIRED" FIRE-HORSE'S FRANK.—On Friday, "Buck," a veteran fire-horse, formerly attached to No. 6 company, but which is now used in the buggy of the lineman of the police and fire alarm telegraph, created much merriment by his persistent determination to run to a fire. Buck was standing in front of the city hall in charge of a boy when the fire-bells rang. The animal saw No. 4 engine rushing down Calvert street, and the excitement was too much for him to stand. He started at a rattling pace after the engine, to the terror of the boy in the buggy, who, finding he could not check the horse, occupied himself by calling out to the pedestrians and drivers to clear the track. The horse continued on until the engine stopped at the scene of the alarm, when he halted alongside of the machine, as he had often done when in active service. It is stated that Buck, when pulling the buggy on ordinary occasions, requires to be considerably persuaded before he will get up a trot.—Ballmore Sun.

AN ENGLISH SURGEON'S VACATION.—Sir Henry Thompson, the famous English surgeon, has had constructed a horse-boat, charmingly fitted and furnished, and in it, accompanied by his accomplished daughter, he is about to start on a sketching tour on the Thames.

NEW JERSEY.—The Amateur Athletic Club of Morris-town contests resulted in the following victories:
Four hundred yards dash won by George Randolph in 11s; the running high jump by Robert Webb; putting the shot (16 pounds, distance 28ft 3in) Paul Brown; quarter-mile run won by Fred Merrill in 57s; standing-long jump by Paul Revere; running long jump by Walter Wood; half-mile run by H Davis in 2m 29s; standing high jump by Walter Wood; vaulting by H O

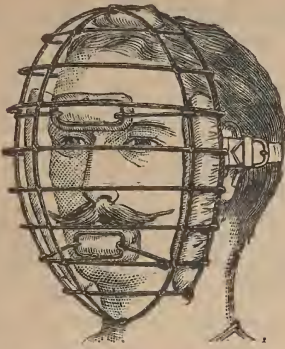






Sportsmen's Goods.

PECK & SNYDER'S



Base-Ball Catcher's Mask,

Now used by all the prominent catchers when playing behind the bat.

We send samples, C. O. D., for \$3. Enclose stamp for the *Athletes Journal*, giving our latest prices of all goods in the sporting line.

Address  
PECK & SNYDER, Manufacturers,  
Anglican St. 124 Nassau street, N. Y.

COMPLETE OUTFITS

Camping, Shooting & Fishing

Fine fishing and shooting tackle, camp stoves, leather, rubber and canvas goods and fits for sportsmen. Tents, portable boats, messicans, etc. AGENTS FOR THE FOX GUNS.

The best and strongest American guns yet made. Sole agent for the celebrated Mobbie files, Holberton's fly rods, black bass and trout flies, and full length fly books; Purdy's glass ball traps and ball-eye balls, etc. Send ten cents for illustrated catalogue, with rules for glass ball shooting, and hints on camping, shooting and fly-fishing for trout and black bass.

W. HOLBERTON,

P. O. Box 5,109. 102 Nassau street, N. Y. Aug 23 th.

GOOD'S OIL TANNED MOCCASINS.

The best thing ever worn by sportsmen. Not injured by wetting and drying—always soft and easy to the feet. 4 different styles. Prices to suit the times. Send for illustrated circular and price list. (Successor to Frank Good.) MARTIN S. HUTCHINGS, P. O. Box 368, Dover, N. H. W. HOLBERTON, 102 Nassau St., N. Y., Agent.

Gale's Patent Tents,

Adapted to all purposes where Lawn, Beach, Hunters' and Camp Tents are used; are eight feet high, seven feet square at bottom, will lodge four persons; can be set up or taken down and packed in five minutes, making a bundle four feet long, of twenty-five pounds weight. The pole in two parts, is joined together by a brass tube. They are wonderfully light, and yet very strong, and are the handiest and cheapest tents extant. Samples of goods and price list sent free, and the tent sent on receipt of price, or C. O. D. Prices from \$10 to \$15.

GALE & CO.,

Ag 21 Boston, Mass.

THE '76 SHOOTING COAT.

(PATENTED)  
The largest variety of Shooting and Sporting Garments, in the World.

Send for Illustrated Catalogue,  
GEORGE C. HENNING,  
Washing'on City.

CAMP LOUNGE CO., TROY, N. Y.

Value Lounges, \$5. These discounts. Free Circulars.  
Pillow and Mosquito Bar Canopy with every Lounges and Cot. Value Cot, Price \$10. Spreads 6 ft. x 2 ft. Jointed Tent Poles: \$1. Poles, \$3 per set; 9 ft. poles, \$4 per set. Brauch Offices—Cortlandt St., N. Y. City; 13 Faneuil Hall Square, Boston; 15 Calle Tejanillo, Havana; 415 Sansome St., San Francisco. Agents wanted. j12 cw

Painting.

PAINTING.

EVERY ONE THEIR OWN PAINTER.

50 Per Cent. Saved.

We are manufacturing a very fine Pure Ready-mixed Paint, mixed in such a manner that any ordinary stable or farm hand can make as good a job painting as a painter can with paint mixed in the old way. This is because our paint does not set quick, and thus show marks of the brush. We sell no more than materials can be bought in the ordinary way, and pay freight in certain sized orders.  
Any gentleman wishing to paint up his buildings at small expense had better write, and have sent free our book.

Address 260 Front street,  
INGERSOLL PAINT WORKS.  
je21tf



STODDARD'S CARTRIDGE LOADING IMPLEMENT,  
COMBINING SEVEN DIFFERENT TOOLS,  
Cap Expeller, Recapper, Loader and Tube, Creaser, Cutter, Crimper and Shell Extractor.  
NO. 10 NOW READY.

Performing all the operations possible in the manipulation of Paper or Metal Shells for Breach-Loaders.  
Length, 4 1/2 inches. Nickel Plated. Weight 10 ounces.  
All the operations are perfect, and suitable for any shell.  
AWARDED BOTH MEDAL AND DIPLOMA AT CENTENNIAL EXHIBITION.

PRICE, \$6.  
Circulars sent on application. Send postal order or check to  
C. J. STODDARD & CO.,

Lock-Box 192, Washington, D. C.  
LIBERAL DISCOUNT TO THE TRADE.

Cotton Duck, every width & weight, cut to any length, Oiled do. manufactured by steam power, Saturated, not enameled,

Slings for disabled Horses, thoroughly harnessed, \$10 each.

Lock Pouches, Messenger Bags,

Nose Bags at wholesale, anything and everything that can be made of canvas.

Arrangement of Tent Catalogues.

- No. 1. Artist's & Camping.
2. Military.
3. Lawn and Garden.
4. Camp Meeting & Chapel.
5. Circus & Show.
6. Base Ball, Cricket, &c.
7. Sundries.



Palmetto Tents. 10 feet square, \$20 each. 7 1/2 " " 7 " " 7 " " 7 " " } Boyle's U. S. Tent and Mail Bag Manuf'y, 3 FULTON ST., NEW YORK.

THE UNITED STATES CARTRIDGE COMPANY,  
LOWELL, MASS.

Manufacturers of the  
CENTRAL FIRE, SOLID HEAD,  
BRASS SHELL, RE-LOADING CARTRIDGE,  
Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.

W. W. Greener's  
CHOKE-BORE GUNS,

Tried on Game in America.  
Supplied by H. C. Squires, 1 Cortlandt St., NEW YORK.

See the Following Testimonials:

SIR—It is a pleasure for me to inform you of my high appreciation of the 10-lb. Greener breach-loader purchased of you last winter. I consider choke-boring, if skillfully done, as the greatest improvement in fowling-pieces since the introduction of the percussion cap. It gives the maker complete control of the pattern, and greatly increases penetration. To prove this, I will give you the performance of this gun. The 32-inch 10-gauge barrel, charged with 4 1/2 drachms of powder and 1 1/2 oz. No. 6 English chilled shot, gave patterns ranging from 28 to 320 pellets in 3 1/2-inch circle at 40 yards. The same charge of powder and 1 1/2 oz. No. 4 American shot gives 160 to 175 pattern, with penetration which kills ducks at 80 to 90 yards like a stroke of lightning. It is a characteristic of the choke-bore to show its greatest superiority in the large sized shot. What I am about to say will perhaps surprise you as much as the performance surprised me. On trial of the 12-gauge 28-inch modified choke-bore barrels, with 3 1/2 drachms of powder and 1 1/2 oz. of shot, I got about the same pattern and spread of shot at 25 yards as with the full choke 10-gauge barrels at 40 yards, with tremendous penetration. This is just the performance required of a gun for thick cover, in which you generally find ruffed grouse, woodcock and quail, these birds being killed, with few exceptions, at from 15 to 25 yards.

COL. JOHN BODINE.

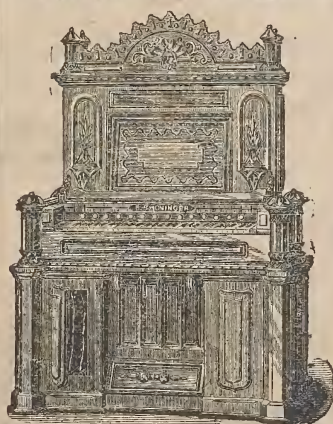
DEAR SIR—The guns arrived all right. We think these last guns you have sent us will place the Greener guns ahead of any other in this country, as guns of other makers don't compare in shooting quality with them. We unhesitatingly recommend the Greener as far superior to any gun of foreign or domestic manufacture that we have seen. We say this after seeing and using guns of all the most celebrated makers.

SELMA, Ala.  
The Greener gun presented by Mr. Squires for the best pointer, and awarded to me, is a close, clean, hard hitter, killing its game at very long distances. It is the second Greener that I have owned and they cannot be beaten. I can win with them at the trap or in the field.  
LAKE CITY, Minn. S. B. DILLEY.

SIR—I have a pair of W. W. Greener's breach-loaders (bought of H. C. Squires, of New York), modified choke-bore. I have had an opportunity to test these weapons on birds heavily feathered, and where great penetration was essential to success. I have repeatedly made long shots, always killing the game clean. At a target both guns made a very even distribution of the shot, with extreme penetration.

P. C. FELD.  
SIR—The Greener breach-loader I purchased of you is very fine indeed, and gives great satisfaction.  
WARREN, Pa. ROBERT DENNISTON.  
W. W. GREENER, St. Mary's Works, Birmingham, England.

Highest Honors  
CENTENNIAL WORLD'S AIR, 1876.  
SHONINGER ORGANS.



PRONOUNCED UNANIMOUSLY AS THE  
Best Instruments.

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:

"The B. SHONINGER ORGAN CO.'S exhibit was the best Instruments at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, and liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either shrink, swell or split." THE ONLY ORGANS AWARDED THIS RANK.

This Medal and Award was granted after the most severe competition of the best makers, before one of the most competent juries ever assembled. New styles and prices just issued, which are in accordance with our rule, the BEST ORGANS for the least money.

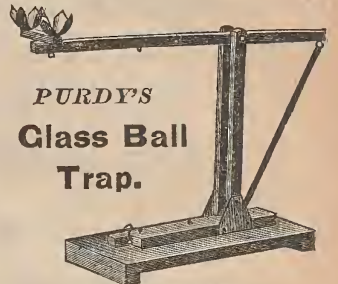
We are prepared to appoint a few new Agents. Illustrated Catalogues mailed, postpaid, upon application to  
B. SHONINGER ORGAN CO.,  
97 to 123 Chestnut Street,  
NEW HAVEN, CONN.

Sportsmen's Goods.

HAMMOCKS



FOR LAWNS AND EXCURSIONS  
Tents, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seetees, etc. Sent for Illustrated Circular.  
G. WEBSTER PECK,  
Manufacturers' Agents,  
110 Chambers St., N. Y.



PURDY'S  
Glass Ball  
Trap.

(Patent Applied For.)  
The best and cheapest trap offered, made of yellow pine, and every part warranted. Throws single or double balls in any direction. Traps, each, \$5; solid oak trap, \$6.50; extra rubber springs, per doz., 75c; Purdy glass balls, per 100, \$2. The Purdy Glass Ball is the best and easiest ball to break, almost presents a flat surface to the shooter. Liberal discount to the trade.

W. HOLBERTON, Sole Agent,  
je21 8m 102 Nassau St., N. Y.

Seydel & Co's Pocket Hammock.  
No. 1, weight only 1 1/2 lbs.; bears 1,300 lbs.; price \$4. A most luxurious Couch, Seat, Swing, Etc.



Circulars may be had by addressing MCCOY & CO.,  
134 and 136 Duane Street, N. Y.

EVERY DESCRIPTION OF  
Sporting Goods.

GUNS, RIFLES, PISTOLS & FISHING TACKLE,  
HUNTING AND FISHING SUITS, CAMPING OUTFITS.

Bogardus' Glass Ball Traps, \$10.00; Glass Balls, per hundred, \$2.40.  
Send \$2.50 for our "Wasp" revolver, 22 cal. 7 shot nickel-plate, warranted. Satisfaction guaranteed.  
Send Stamp for Catalogue.

WASHBURN & CO.,

P. O. box 522. 66 JOHN STREET, N. Y. je14.

Amusements, Etc.

GILMORE'S CONCERT GARDEN.  
OPEN EVERY NIGHT IN THE WEEK WITH  
GILMORE'S GREAT MILITARY BAND,  
SPECIAL PROGRAMMES SUNDAY EVENINGS.  
50 cents admission. Boxes seating four, \$3.

Zoological Garden.  
FAIRMONT PARK, PHILADELPHIA.  
Open every day. Admission of Living Wild Beasts, Birds and Reptiles. Collection \$20 cents; children under twelve, 10 cents. Jan 17

THE GREAT NEW YORK AQUARIUM, Broadway and 35th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones, Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments.  
Coney Island Aquarium now open for the summer.

Publications.

BINDERS.

Get your fine books bound. Art Journal bound uniformly in London publishers' style. Pictureque America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done into two or three days if required.  
E. WALKER'S SONS, 14 Day street.

"THE OOLOGIST,"

A MONTHLY JOURNAL DEVOTED EXCLUSIVELY TO BIRDS AND BIRDS' EGGS.  
This magazine, the favorite of amateur ornithologists, is now in its third volume. It is replete with all that is new or recent in Ornithology and Oology, and publishes important papers on the rarer of our birds and eggs. It is just the periodical for those making collections of birds and eggs for scientific examination, as its columns are constantly furnishing descriptions of the eggs of new and rare species.  
Terms—Forty cents a year, in advance. Specimen copies and prospectuses only on receipt of stamp. Address,  
S. L. WILLARD & CO.,  
Oneida st., Utica, N. Y. je7

Guns, Rifles, Etc.

SPORTSMEN

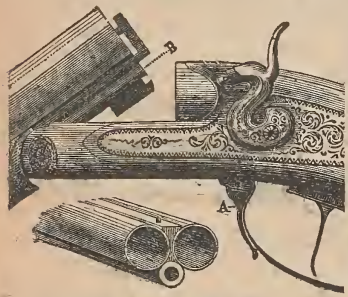
Will find a select assortment of Guns, Rifles, Revolvers, Ammunition, And all goods appertaining thereto.

Special Attention is Invited to Our New SMITH'S PATENT REVOLVERS,

In four sizes of 22, 28, 38 and 41-100 cal. This new and elegant Arm combines simplicity durability, a perfect interchange of all its parts. The most critical inspection in process of manufacture, and with its patent improvements, make it the Most Desirable Revolver in the Market.

A COMPLETE ASSORTMENT OF MAYNARD RIFLES, SHOT GUNS, ETC. Send for Circular.

FOWLER & FULTON, NO. 300 BROADWAY, N. Y. M. FOWLER, HENRY FULTON.



THREE BARRELED Breech-Loading Guns. (TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

PRICES. Three barrel, \$75 to \$250. Double barrel shot guns. Damascus barrel, \$50 to \$200. Twist barrel, \$35.

SEND FOR NEW CIRCULAR. W. H. BAKER & CO., Syracuse, N. Y.

Sportsman's Depot.

First premium at World's Fair at New York and Centennial Exhibition.



JOHN KRIDER,

N. E. Cor. Second and Walnut Sts., Phila. GUNS, RIFLES, PISTOLS, Fishing Tackle, Rods, Reels, Lines, Hooks, Flies, Leaders, Snoods, Artificial Bait, Fly Books, Etc., Etc. Salmon, Bass and Trout Files Made to Order. "Kriders" Celebrated Center Enamel Split and Glined Bamboo Rods. Birds' Eggs and Birds' Skins in Great Varieties - Taxidermy in all its branches. Spratt's Patent Dog Biscuits. Repairing of all kinds.

For Rifle and Shot Gun Practice.



DENNISON'S TARGETS. 25 to 1000 yds. range Target Pastors and Score Cards. ALSO, Targets & Pads For testing the pattern and penetration of SHOT GUNS. Sold by Dealers in Sporting Goods.

On receipt of Ten Cents a 100-yd. Target will be sent by mail, with Circular, containing Major Henry Fulton's RULES FOR PRIVATE PRACTICE, by DENNISON & CO. 198 BROADWAY, NEW YORK. Sept 5m.

DECOYS.

M. C. WELD, Manufacturer of Decoy Ducks, Blacks and Mallard, 16 inches long; 50 cents each; nice ones. 87 MANHATTAN ST., Rochester, N. Y.

THOMAS, JR., GUNS, PISTOLS, SPORTING GOODS, 174 South Clark Street, Chicago, Ill.

W. & C. SCOTT & SONS.



TRIPLEX.

marked the PREMIER QUALITY [Extract from FOREST AND STREAM, New York, December 26, 1876, Contributed by one of the Judges of Awards of Guns at the Centennial.] "This action (The Triplex Lever Grip) combines in the highest degree strength and simplicity, and must rapidly secure the favor of all who test its merits.

COMPENSATING LUMP. Strongly recommended. It is invaluable, and should be ordered on every gun. Costs about \$10 extra. Choke-bored, medium or full. Our guns to be had of the principal dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.

Paper and Metallic Shells FOR Breech-Loading Shot Guns,

Manufactured by the UNION METALLIC CARTRIDGE CO., BRIDGEPORT, CONN.



BERDAN'S PATENT SOLID ANVIL



STURTEVANT'S PATENT MOVABLE ANVIL

THE STURTEVANT SHELLS are the easiest reloaded. Do not have to unscrew the head nor use an awl to remove the exploded caps. THE PATENT MOVABLE ANVILS, made of steel wire, will not bend or break. THE BERDAN PATENT SHELLS, new model, with Hobbs' patent waterproof primers, never miss fire, and are highly prized by all that have used them. PAPER SHELLS.—By repeated experiments and great outlay for improved materials, and machinery made expressly for the purpose, we can now warrant our BROWN PAPER SHELLS equal to any imported. They are sure fire, and will not burst in the gun. Inquire of any of the dealers in sporting materials for the U. M. C. Co.'s Shells. Not sold at retail by the manufacturers.

"St. Louis Conical Base Paper Shell."



Having made important improvements in our Shell, we can safely recommend them as equal, if not superior, in quality to any Paper Shell manufactured in this country or in Europe. Among the advantages claimed for these Shells, are: A saving of 25 per cent. in the use of powder; also the great decrease in recoil. The sizes made are No. 10—2 1/2, 2 3/4, and 3 inches; No. 12—2 3/4, 2 3/4, and 2 3/4 inches. Longer and shorter sizes made to order. Sample, 100 sent by express on receipt of \$1.15 for No. 12; \$1.30 for No. 10. Factory and office, No. 2,239 De Kalb street, St. Louis, Mo.

St. Louis Patent Shell Manufacturing Company.

Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.

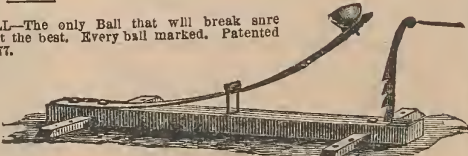
These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all SPORTSMEN'S CLUBS AND AMATEURS.

THE PATENT ROUGH BALL.—The only Ball that will break ere when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 13, 1877.

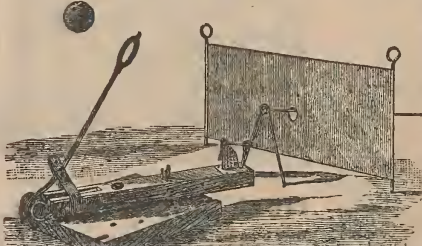
Geo. E. Hart & Co.,

NEWARK, N. J.

TRADE SUPPLIED.



HUBER & MERWIN'S CHAMPION BALL TRAP.



We call the attention of the fraternity to the above trap, claiming to be the *mez plus ultra*. It combines compactness with durability, and is arranged, by a swivel on the bed-plate, to throw a ball in any direction or at any elevation known to the shooter, a screen preventing his seeing the direction in which the trap is set. The spring, as the cut will show, is made of a steel rod or wire, bent spirally at the point of attachment, thus receiving the concussion its entire length, and preventing breakage.

PRICE \$10. FOR SALE BY

BARTON & CO., Sole Agents, 337 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP, for durability and perfection of its operation, superior to them all, and take pleasure in recommending the "Champion" to sporting clubs and my friends. (Signed) IRA A. FAINE, Aug 9 ly



THE GREEN GUN has the simplest and strongest snap-action made. The proportions and finish, the shooting qualities for penetration and pattern, are not excelled. Can bore to make any pattern ordered, from a cylinder to a full choke. Muzzle-loaders altered to breech-loaders, with same action as new guns. Barrels bored to shoot close and strong.

Price \$45. Re-boring and repairing breech-loading shot-guns done promptly and in the very best manner. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Aug 20 ly

Sportsmen's Goods.

W. H. HOLABIRD, Manufacturer of Specialties in Clothing FOR SPORTSMEN, Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent by mail, post-paid, \$6. Holabird's New Game Bag; weighs 13 ounces. The most convenient and coolest garment ever offered to Sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2. Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Flannel suits made to order in the neatest and most desirable style. Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

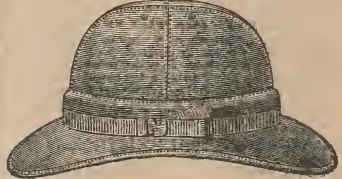
Ask your gun dealer for Holabird's goods. Jy 19 ly

NO MORE BROKEN GLASS!

Paine & Holberton's composition balls can be used in any trap. Patent applied for. Price per 100.....\$3 This ball is perfectly harmless, and is a benefit to have rather than an injury. Many accidents have occurred from the broken glass balls, and every day it is becoming more difficult to find places to practice with the glass balls. These balls come packed 300 in a barrel.

W. HOLBERTON, Sole Agent, P. O. Box 5,109, 162 Nassau Street, N. Y. Aug 23

SOLA HAT.



This Hat is made of waterproof duck, dead grass color, and in the same style as East India Hats; is the coolest and best yet offered to sportsmen.

Absolute Guarantee against Sunstroke. For sale by all dealers in sportsmen's goods, or sent by mail, securely packed, postage prepaid, price \$3. Address,

THOMSON & SON, 301 Broadway, New York.

P. O. Box 1,016. Send stamp for illustrated catalogue of sportsmen's goods. Aug 21 ly

ANY GENTLEMAN who has not received a circular containing this cut, should write for one with new price list.



Hunting Suit, A.....\$5 00 Hunting Suit, B..... 7 00

ALL GOODS FIRST-CLASS.

GEO. C. HENNING Washington City. Aug 23 4t

Founded July 4, 1803.



Thos. W. Sparks, Shot & Bar Lead MANUFACTURER. Office 121 Walnut Street, Philadelphia.

Magic Lanterns and Stereopticons.

E. & H. T. ANTHONY & CO., 591 Broadway, and Views; Graphoscopes, Chromos and Frames; Albums, Photographs of Celebrities, Photographic Transparencies, Convex Glass, Photographic Materials, Awarded First Premium at Vienna and Philadelphia. dets

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year.  
Ten Cents a Copy.

NEW YORK, THURSDAY, SEPTEMBER 20, 1877.

Volume 9.—No. 7.  
[No. 111 Fulton St., N. Y.]

### OUR EVENING CAMP FIRE.

Selected.

Pile high the fagots! See the bright flames play!  
Come forward, doughty fishermen,  
And while our camp fire glids the gien,  
Relate the chief adventures of the day;  
Discouraging thus of piscatorial fray,  
We'll "fight our battles o'er again."

Mark how the leafy branches in the air,  
Responsive to the rising heat,  
Form many a waving banner, meet  
For regal bivouac, as though aware  
That underneath their folds proud victors share  
The honors of King Trout's defeat!

Be modest, O ye braves of mimic war,  
For though a fisher tells a tale  
Himself believes, his friend might fall,  
In telling him to find belief thereof!  
"Fish stories" all true fishermen abhor;  
Let naked truth alone prevail.

The longest hours of winter eve were fleet  
If graced by narratives like these;  
Yet tales thus told are but the lees  
Of wine fresh drawn and drank in such retreat  
As this, with Nature's beauties all replete,  
Beside our camp fire 'neath the trees.

The fire burns low and we are prone to drowse.  
The songs all sung, the tales all told,  
The back-log to its place is rolled;  
Then, each to each renewing friendship's vows,  
We seek our spring, fragrant beds of boughs,  
And sleep our childhood's sleep of old.

M. A. KINGSFORD.

### South American Reminiscences.

IN 186— I joined the U. S. S. Sloop, X— awaiting orders in Hampton Roads, off Fortress Monroes, near the Rip Raps. We were delayed a week or more although ready for sea, but the time was well employed in drilling and "breaking into the traces" a new crew. It was not long before every one had found his proper place, for the navy is a great leveler, and the "equal rights of man" that Jack Easy sought, are found, as in his case, on board a man of war—that is each one has an equal right to do as he pleases, providing he pleases the captain.

Sailing orders received, the anchor was withdrawn from the sands of the "Roads," and we stood out to sea. The crew were mustered, the customary speech by the commanding officer spoken, the flag saluted and ship cheered; the pilot left us with the mail bag, and we were fairly outside the Capes of Chesapeake. For seven days the wind was strong from the southward, next it shifted suddenly to NNE, making a heavy, wallowing sea, and then hauling to the westward, blew with such violence as to make the ship uncomfortable; she fairly staggered under the force of the gale, and her lee guns swept the billows, forcing us to take in 't' gallant sails, and sails and courses. Our ship, however, sustained the high opinions we had of her good qualities, behaving admirably, and averaging eight and a half knots without steam. On the third day this blow came to an end, the weather cleared, and our hearts were gladdened with a gentle breeze to waft us on our way.

Much as I had heard and read of the Gulf Stream, I was nevertheless astonished at its magnitude; its volume being a thousand times greater than that of the Mississippi or Amazon, and its banks of cold water more clearly defined than those of either of these rivers at flood. So clear is the line of demarcation between the warm waters of this oceanic river and its cool, liquid banks, that a ship sailing along may be half in the stream and half out, and a bucket of water dipped from one side will be twenty degrees cooler than one drawn from the other.

The thirteenth day out from the capes of "Old Dominion" our trade wind left us, and steam was employed for the first time. Four days later and our anchor was dropped in the harbor of St. Pierre, island of Martinique, where we remained but forty-eight hours. Even this short stay enabled us to ramble through some of the groves and gardens, among which the Empress Josephine passed her girlhood. By the way the celebrated Madame de Maintenon—the concubine, ormorganatic wife of Louis XIV., who wielded a greater power than

ever a queen over the destinies of the French—was also for a time a resident of this isle. A third resident of Martinique was Aimee Le —, who, with Josephine, forms one of the graceful traditions of the island, and one who none the less graced a throne, though by becoming the mistress of the harem of a Turkish Sultan. The story of the wierd, unearthly, aged negress and her prophecies, to which the biographers of Josephine give credence, and in which Aimee, her friend, was also included, has a basis of probability; for not only do African superstitions prevail, but Obi rites are still indulged in secretly, and in them many Creoles as well as blacks have implicit faith.

Leaving this beautiful isle—all the Windward isles are beautiful, we pass within view of the Barbadoes with their windmill crowned hills, and slowly force our way through the blue water toward the great tropical river, the Amazon. We first encounter the flood of the stupendous stream as a broad, yellow belt, cleaving the blue waters of the ocean for a hundred or more miles from land. We enter the delta at a fortunate juncture, witnessing the phenomena of a conflict between the ascending tide and the descending flood of the river just ahead. This is the *pororoca* which frequently causes a wave fifteen feet in height where the stream is shallowest. At this time, however, it did not exceed five feet, possibly less. This gives character to the navigation of the Amazon for some hundreds of miles, and such is the force of the ascending tide that sailing craft can make no headway against it, but are forced to anchor until the turn; hence the navigation is measured by tides. This perturbation of the waters is more violent on the northern side of the island of Marajo, where the river is wider and much more shallow.

Belem, or Para, is the principal city of the Amazon, and with the exception of Quito, the only town of considerable size situated upon the equatorial, its latitude being 1 deg. 28 min. South. Its site occupies an elevated point of land on the right bank of the Para, as this most important mouth of the Amazon is called, eighty miles from the ocean. The roadstead is good, being formed by an abrupt curve of the stream, and admitting vessels of the deepest draught. The opposite bank is formed by the great island of Marajo, twenty miles away, though entirely obscured by intervening and smaller isles.

One is struck with the first view of Para, not only with the appearance of the town, but its inhabitants, Indian blood seeming to predominate. The Brazilian aborigine may here be seen, both in pure blood and every possible admixture with white and black. The mixed breeds which now form probably the greater part of the population, have each a distinguishing name. Mameluco denotes the offspring of white with Indian; Mulatto, that of white with Negro; Cafuzo, the mixture of the Indian and Negro; Curiboco, the cross between the Cafuzo and the Indian; Xibaro, that between the Cafuzo and Negro. These are seldom, however, well demarcated, and all shades of color exist; the names are generally applied only approximately. The term Creole is confined to negroes born in the country, and not to all indigenous races as in the West Indies. The civilized Indian is called Tapuyo or Caboco. Such occupy every station in society, being merchants, sailors, priests and slaves. Probably no city in the world possesses a greater number of foreign residents in proportion to its population than Para. English, Norwegian, Danes, Swedes, Gauls, Italians, Germans, Greeks, North Americans, Spaniards, Hebrews, Chinese, Malays and Japanese, all have representatives here. The foreign population, however, is not a stable one, the majority of them being but adventurers, who come merely for the purpose of making fortunes, after which, if successful, they return, or seek the more brilliant metropolis. Still the monte and roulette tables or the "wheel of fortune" forces many to become fixtures, though the gambling helms have nothing in the way of attraction other than the excitement of gaming. There are no luxuriously furnished, brilliantly lighted palaces, as in North American cities; on the contrary, they are usually the vilest hovels, but nevertheless are well patronized.

The buildings present an array of white walls and red tiled roofs, those used as dwellings being particularly well adapted to the climate. A wide veranda is an essential portion of every habitation, often extending quite around the building, while a similar construction prevails on at least three sides of the spacious courtyard within. A part of the inner veranda, or a room connected with it, serves as the dining room, and is always airy and pleasant. Latticed windows are more com-

mon than glass, but some residents possess both, the preference always being given to the rooms that possess the former during pleasant weather. Then, too, instead of the dark and unventilated rooms or alcoves with sweltering beds for sleeping, so common with us at the North, they have hooks for the suspension of hammocks across the corners of the large rooms, and transversely along the entire sweep of the verandas, so that each dwelling is capable of accommodating fifty or sixty guests each night with the least possible inconvenience.

The plan on which the city is laid out possesses both regularity and taste. It has a number of public squares and gardens, and the streets are all macadamized. There is a marked proportion of commodious and substantial houses, which are built in the Italian style of architecture, although many of the dwellings upon the less important streets are diminutive in size and inferior in construction. The Custom House was formerly a church of the Jesuits, and still retains its ecclesiastical aspect in spite of its secular employment. One of our officers remarked that, to be in keeping, all documents emanating from the customs should be written in Latin, to which a Brazilian gentleman replied: "Such is very nearly the case, Portuguese being the half sister of that language." The officials all speak English and French with fluency, which put our bungling attempts at Portuguese to shame; furthermore they are universally polite, an accomplishment decidedly in bad odor among similar personages in our own country. The rule seems to be in Brazil to appoint only gentlemen to office, but with us, if it is not a rule, it seems to be a fact that bores and knaves have the preference.

The convent of San Antonio is another prominent ecclesiastical building put to secular uses, being occupied by the Amazon Steam Navigation Co. The hospital was once the Convent of San Jose, and the barracks of the standing army the residence of the Carmelite order. Yet the city has numerous churches as well as an elegant and substantial cathedral, with high bell towers, constructed of stone which was brought from Europe for the purpose. The educated Brazilian is eminently more progressive than his Portuguese ancestor, and totally devoid of the foolish and superstitious reverence the latter possesses for religious objects. It is said that the Pope appointed and sent a legate to the Imperial Court at one time, with the expectation that his salary, fees, etc., would be paid by the empire. The Senate decided that his Holiness should pay his own servants, as Brazil had no use for them, and so informed him.

Trade at Para is brisk, a prominent feature being the snake merchant, who perambulates the streets soliciting purchasers, the box or barrel upon his head containing his merchandise. These serpents are of the boa species, and much esteemed by the Paranees as exterminators of vermin, and are held in much the same estimation as a good mouser would be at home. Every house is the possessor of at least one, many having three or four. It is unnecessary to say that they are harmless, and they are admirable for the purposes for which they are sold. Every square also has its parrot and monkey merchant, who undoubtedly drives a good trade among the sailors, Jack's fondness for pets being proverbial the world over. There was hardly a ship in the harbor that did not possess at least half a dozen of each. Howling monkeys, monkeys with non-prehensile tails, fox-tailed monkeys and squirrel monkeys, all were to be had at prices within the reach of all, even a cabin boy. Being seized with the *Simian* mania, I purchased a pair of graceful and handsome little animals known as outisits or marmosets. These are favorite pets with the Brazilian ladies, and are rarely seen outside of the limits of the empire, even in the best zoological collections. They are not wanting in beauty, and are exceedingly nimble and acute. In size they are somewhat smaller than a gray squirrel, and possess thrice the intelligence of the latter. The skin is like *Chinchilla* fur, and their wise little faces present none of the repulsive features of other monkeys. In action they are most graceful and rapid, and it is a treat to see the little fellows pursue and capture flies and insects, or see them devour a mouse. When one of the latter was caught, its captor began at his snout, carefully pushing back the skin, eating bones and all until the tail was reached which was all that was left inside of the pelt. They would scamper up the rigging with ten times the rapidity of the nimblest seaman, and if a bird chanced to light, pursued it from rope to rope until it settled upon a spar, when one would quickly pass along the under

side and pounce upon its victim with unerring certainty. I lost these interesting pets later in the cruise, while in the Straits of Magellan, probably from the cold, to which they were extremely sensitive.

The evening and morning scenes that may be enjoyed at Para are indescribably beautiful. At night all is still, save the occasional rustling of a balmy breeze, and the imagination must be vivid that can picture to itself more loveliness than is exhibited when the moon appears in all her splendor. The dark, luxuriant foliage crowding hundreds of spreading trees is furnished with a mellow lustre too exquisite for words to portray; while the waving plumes of numerous palm trees, glancing their reflections downward upon the beholders, add to the charm of the scenery, and the opening blossoms of many fruit trees and humbler flowers, load the air with a fragrance none the less grateful for not being mingled with offensive effluvia. The blandness of the evening air is in delightful contrast to the rays of the noonday sun, and an occasional breeze invigorates the system after either the confinement or exposure of the day. Although in the course of the night there falls a copious dew, yet so balmy and healthful is the atmosphere that there is no dread of exposing to it the most delicate constitution. This is the climate of all others I would seek as a relief for enfeebled health, particularly *pector- al affections*, although so near the equator, it is not excessively hot. The temperature rarely reaches 95 degrees of Fahrenheit, the greatest heat of the day, about 2 p. m., ranging generally from 89 to 94; but on the other hand, the air is never cooler than 73, so that a uniformly high temperature exists. Americans say the heat is not so oppressive as in New York or Philadelphia. The humidity is, of course, excessive, particularly in the rainy season, yet there is no danger from exposure to the night air or residence in low swampy districts. The English and American residents who had been here twenty or thirty years look as fresh in color as if they had never left their native country, and the natives themselves, particularly the women, seemed to preserve their good looks and plump condition until late in life. The Paraneese rise with the dawn, drink a cup of coffee, and devote the cool of the morning to business. Early in the day the sky is invariably cloudless; the heavy dew of the previous night's rain which lies on the moist foliage is quickly dissipated by the glowing sun, which, rising straight out of the east, mounts rapidly toward the zenith. All nature is fresh, new leaf and flower buds expand rapidly. Some mornings a single tree will appear in flower amidst what was the preceding evening a uniform mass of green forest—a dome of blossom suddenly created as if by magic. The birds are all active; from the trees may be heard the chattering of parrots whose bright colors add to the charm of the foliage. The heat increases rapidly, until toward two o'clock, by which time every voice of bird or beast is hushed; only in the trees is heard at intervals the harsh whirr of the cicade. The leaves, which were so moist and fresh in the early morning, now become lax and drooping, and the flowers shed their petals. Even the streets and shops are deserted, the inhabitants being either asleep in their hammocks or seated on mats in the shade, too languid even to talk. A little later and perhaps a shower will fall, producing a welcome coolness. First, the cool sea breeze which commenced to blow about ten o'clock, and which increased in force with the increased power of the sun, will flag and finally die away altogether. Now the heat and electric tension of the atmosphere becomes almost insupportable. But soon white clouds begin to gather in the east, growing gradually blacker along their lower borders. Suddenly the whole eastern horizon becomes black, and spreads upward until old Sol is at length obscured. Then the rush of a mighty wind is heard swaying the tree tops, a vivid flash of lightning bursts forth, then a crash of thunder and down streams the deluging rain. The storm soon ceases, leaving bluish-black motionless clouds in the sky until night. Meantime all nature is refreshed, but heaps of flower petals and fallen leaves are seen under the trees. Toward evening life revives again, and every bush and tree teems with life. The following morning the sun again rises in a cloudless sky, and so the cycle is completed—spring, summer and autumn, as it were, in one tropical day. The days are more or less like this throughout the year, though a little difference is observable between the wet and dry seasons—the one is varied with showers, the other with sunny days. It is never spring, summer or autumn, but each day is a combination of all three. With the day and night always of equal length, the atmospheric disturbances of each day neutralize themselves before each succeeding morn; with the sun in its course proceeding midway across the sky, and the daily temperature the same within the two or three degrees throughout the year—how grand in its perfect equilibrium and simplicity is the march of nature under the equator!

Few objects attract the attention of the stranger more than the *canoes*, which seem to have incorporated all the diversities of naval architecture since the days of Noah; and they are to be found of all sizes. The largest resemble more the Chinese junk than anything else, and, to the eye of a sailor, are anything but conducive to safety; but they are considered excellent for Amazonian navigation. The lading is no less diverse than the styles. One is laden with sarsaparilla and cinchona; a second with nuts, palm hats, tapioca, parrots and monkeys; while a third has a cargo of dried fish, cocoa, vanilla, copaiba balsam, annatto, caoutchouc, guarana, cotton, coffee and rubber shoes.

The use of caoutchouc is said to have been taught through the employment of it by the Omaguas Indians for bottles and syringes; hence the local names "*seringa*," syringe, and "*bor-racha*," leathern hottle. The aboriginal designation is "*cau-tichiu*," from which doubtless arises the name caoutchouc. The trees which furnish the gum grow erect to a height of eighty or ninety feet, half the distance from the ground being totally devoid of branches; but the top is spreading, and ornamented with a thick, glossy foliage. On the slightest incision the gum exudes, having at first the appearance of thick, yellow cream. From this the shoes are made by pouring it over wooden lasts previously coated with clay. This is repeated until the desired thickness is obtained, when they are subjected to the action of smoke from the burning fruit of the *vassou* palm, which serves the double purpose of drying and imparting a darker color.

Another tree not uncommon in the region of Para is the *Massaranduba*, or Cow-tree, and is certainly most remarkable. We had heard a great deal about this tree, and about its producing from its bark a copious supply of milk as pleasant to drink as that furnished by the cow. We had eaten its fruit in Para, where it is sold in the streets by the negro market women; and heard a good deal of the durability of its timber in resisting the action of water. A trip of a few miles into the interior allowed us the much admired view of this wonderful tree growing in its native wilds, and we found it one of the largest of forest monarchs, very peculiar in appearance on ac-

count of its deeply scored, reddish and ragged bark. A decoction of the bark, we were told, furnished an excellent reddish dye for cloth. On trying the milk, it was found quite pleasant with coffee, but possessed a slight rankness when drunk pure; it soon coagulates into a species of glue, which is exceedingly tenacious, and is often used to cement broken crockery; it also forms a species of plaster, which is held in high repute by the natives. This tree, so well known on the Amazon, yields its fluid in great profusion, but it is not considered safe to drink much of it. Its botanical character seems never to have been properly investigated, though doubtless it belongs to the same family—*Euphorbiacæ*—as the *Caoutchouc*. It is said that the juice of the latter is sometimes used as milk, and that the Negroes and Indians who work in its preparation are fond of drinking it; be this as it may, several deaths are recorded from it—through, perhaps, too free use.

After a stay of two weeks we bid adieu to Para and again put out to sea. We push well out to avoid the head winds so prevalent near the coast, getting no glimpse of land from the time we leave the Amazon until the eighth day, when the island of Fernando de Noronha is seen as a dim blue streak off to the west. This rocky and almost sterile isle serves as a sort of Brazilian Botany Bay. The convicts are not allowed to eat the bread of idleness, raising their own food from the soil, the settlement being in every way self-sustaining. Escape is almost an impossibility, no vessels being allowed to touch at the island without a permit, and the nearest main land—Cape St. Roque—is fully three hundred miles away. We had hoped that our ship would touch at either Bahia or Pernambuco, but such was not our lot. The latter is seldom visited by men-of-war, as the bar does not allow heavy draught vessels to enter, and there is, moreover, a disagreeable port regulation, forcing all ships to store their powder at the fort while lying in harbor. But perhaps the most powerful objection is that its harbor cannot be relied upon for quietness or safety, as the powerful winds and rolling seas are frequently sufficient to part the strongest cables.

After leaving Para "bibles" and "prayer-books" were in requisition, and the ship hystolystoned from stem to stern, which had been done but once since leaving Hampton Roads. This converts a ship into a floating Babel, and any one between decks need have no very vivid imagination to fancy himself under a railroad bridge with a full train crossing. But we have compensation for all this hubbub in decks almost as white as driven snow, and so clean that a handkerchief might be swept over them anywhere without interfering with its immaculateness. Nothing requires more unremitting attention on a man-of-war than cleanliness. Without it a ship would become intolerable and endanger the health of its crowded occupants. We number nearly three hundred souls all told, besides having coals, water, provisions, clothing, and also spare sails and spars for emergencies. How such a mass of life and material can be brought within the capacity of a single sloop of war, and yet leave scope and verge enough for action, is a mystery understood only by a sailor. Some one has said: "The housewife who grumbles over the intrusion of an additional piece of furniture should look into a sloop of war, and she will go home with the conviction that she can sleep quite comfortably in the cradle with her infant."

After the cleaning, painting is next in order, and the odor of turpentine, benzine and tar salutes the olfactoryrics whichever way one turns. Our batteries are given a coat of black varnish, ropes are re-tarred, spars scraped down and slushed, hammock nettings scrubbed, bright worked polished, tarpaulins varnished, and everything given as new an aspect as is possible, that we may appear well at the Brazilian metropolis. As we sail toward the southward, hooks and harpoons are gotten out and furnished up, for we have reached the region of dolphins, porpoises and sharks. Jack holds a deep rooted antipathy for the latter, who can hope for no mercy at his hands. "There, d—n you," muttered an old quartermaster, as he gave the final quietus, by means of an axe, to the tail of a monster which had been hauled in; "I guess you won't hunt honest folks no more." Next to the capture is the fun of cutting open the shark; for queer things are often found in their stomach, such as shot, tobacco, boxes and buttons, in fact anything that may chance to fall overboard from a passing vessel. We were disappointed in this fellow, however, he having stowed his locker with nothing but an empty condensed milk can.

Soon after passing Brazil's convict colony we encountered head winds, but the end of the fifteenth day out from Para the welcome cry of "Land ho!" was heard from the foretop, which tells the listeners that Cape Frio is ahead, and we confidently expect to see Rio in the morning. Soon a long line of coast comes to view, and we who have never been on the South Atlantic station, anxiously scan every indentation for the opening into the famous bay of the "River of January," but all in vain. At last the officers of the watch put an end to speculation by informing us that we have yet many a mile to sail, and on a different tack. Soon after the sun has set, for there is no twilight in the tropics, the silvery moon rises in all her splendor, and the sea shows ripples of phosphorescent light under our counter. The beautiful evening is soon to lose its charms, for the executive officer remarks, "The barometer is falling!" This causes us to peer anxiously to the Southwest, where a dark cloud bank is seen rising. But a little streak at first, it slowly increases in volume and gradually shuts out all signs of the coast, from which we are "clawing off" as fast as circumstances will allow. The horizon becomes darker and darker, the wind comes in great "soughs" through the rigging, while forked lightnings, almost overpowering in their brilliancy, illumine the blackness. As our ship heels to the port under a fiercer blast, a clap of thunder, like the explosion of hundreds—nay, thousands of parks of artillery, startles and causes a peculiar, breathless, creeping sensation indescribable. When the rain came it seemed as if Heaven's flood gates had been thrown down, for the drops of "pattering rain" at home, in the tropics become fierce, drenching streams, or heavy drops, which, striking, sting and pain with all the intensity of a bullet. So great was the flood that the scuppers were unable to carry off the amount that fell upon the deck where it was quickly ankle deep, every roll of the ship causing bucketfuls to swash over the combings of the hatches, deluging the decks below. Our marine lieutenant, who was from New England, remarked: "When I was home last year they were praying for rain, and had been for more'n two weeks. I hope they may get their share of this!" Just then a roll took him off his legs, and he slid gracefully into the scuppers, which caused him to hasten below with all the attributes of Sandy McGregor, who was "as wet as he could be; he could be no wetter." Although the rain soon ceased the wind did not, and the sea so impeded our progress that it was the evening of the following day when we approached the frowning fortress of Santa Cruz.

On either side of the narrow entrance to the Bay of Rio, as

far as the eye can reach, stretch the mountains and hills which remind one forcibly of Alpine peaks. The first object that commands attention is the rocky isle rising abruptly from the sea, crowned by a light that sheds its beams thirty miles seaward, guiding the mariner to this beautiful haven. To the left is seen the Tres Imas, or Three Brothers, the Gavia, Corcovado and Tijuca. On the right another range begins near the fortress and stretches away to that bold promontory known as Cape Frio. Far away, through the opening of the bay and towering above the coast line, we see in the bright moonlight the faint outlines of the Organ Mountains defined against the clear sky. As we pass under the guns of Santa Cruz, a trumpet is protruded from the lantern, and we receive and respond to the customary hail that greets the incoming vessel. A little later and we are in smooth water, and our anchors bring us up, and we swing upon the bosom of Nitcherhof, at what is known as the "Man-of-war anchorage."

The unrivaled splendor of the moon; the southern constellations, with their queen, the Southern cross, which spangled the heavens; the myriads of lights in the city and on the numerous ships in the harbor; the phosphorescent glow of the water and reflection of Luna's sheen—all combined with the gentle land breeze, laden with the odors of perfumed flowers, causes the grandeur of that evening to linger in my memory as a beautiful dream. We kept the deck until the "we sma" hours, smoking and chatting—it seeming almost a sacrilege to retire.

Called at an early hour, I hastened to the deck to witness the rising of the sun, and to determine how far the magnificent picture of the night before was borne out by the realities of the day. As far up the bay as the eye could reach, lovely little verdant and palm-clad isles were to be seen rising out of the blue water; while the hills and lofty mountains which surrounded us on all sides were given a richness and beauty of coloring unsurpassable. Purple, gold, rose color and ethereal blue, all the varied tints imparted by a rising sun, were seen in tenfold splendor and unrivaled beauty, far surpassing the most imaginative sketch of fairy land ever portrayed by artist's hand. Since then I have viewed the beautiful bay of Panama; witnessed the glories of the Golden Horn; scaled Vesuvius and St. Elmo's height to drink in the beauties of the Bay of Naples, but none can equal the Bay of Rio for beauty or splendor. Naples is beautiful; the Golden Horn gandy in surroundings, and Panama is glorious. But the River of January surpasses them all. It is simply *magnificently grand*.

## INTRODUCTION AND SUCCESSION OF VERTEBRATE LIFE IN AMERICA.\*

By O. C. MARSH.

PRESIDENT OF THE BIOLOGICAL SECTION OF THE AMERICAN ASSOCIATION.

THIRD PAPER.

IT remains now to consider the highest group of the Animal Kingdom, the class *Mammalia*, which includes Man. Of the existence of this class before the Trias we have no evidence, either in this country or in the Old World, and it is a significant fact that at essentially the same horizon in each hemisphere, similar low forms of Mammals make their appearance. Although only a few incomplete specimens have been discovered, they are characteristic and well preserved, and all are apparently Marsupials, the lowest Mammalian group which we know in this country, living or fossil. The American Triassic Mammals are known at present only from two small lower jaws, on which is based the genus *Dromatherium*, supposed to be related to the insect-eating *Myrmecobius*, now living in Australia.

Although the Jura of Europe has yielded other similar Mammals, we have as yet none of this class from that formation; while, from rocks of Cretaceous age, no Mammals are known in any part of the world. This is especially to be regretted, as it is evidently to the Cretaceous that we must look for the first representatives of many of our present groups of Mammals, as well as for indications of their more ancient lineage. That some discovery of this nature from the Cretaceous is near at hand, I cannot doubt, when I consider what the last few years have brought to light in the Eocene.

In the lowest Tertiary beds of this country, a rich Mammalian fauna suddenly makes its appearance, and from that time through the Age of Mammals to the present, America has been constantly occupied by this type of life in the greatest diversity of form. Fortunately, a nearly continuous record of this life, as preserved, is now accessible to us, and ensures great additions to our knowledge of the genealogy of Mammals, and perhaps the solution of more profound problems. Before proceeding to discuss in detail American fossil *Mammalia*, it is important to define the divisions of time indicated in our Tertiary and Post-Tertiary deposits, as these in many cases mark successive stages in the development of the mammals.

The boundary line between the Cretaceous and Tertiary of the region of the Rocky Mountains has been much disputed during the last few years, mainly in consequence of the uncertain geological bearings of the fossil plants found near this horizon. The accompanying vertebrate remains have thrown little light on the question, which is essentially, whether the great Lignite series of the West is uppermost Cretaceous or lowest Eocene. The evidence of the numerous vertebrate remains is, in my judgment, decisive and in favor of the former view.

This brings up an important point in Paleontology, one which my attention was drawn several years since, namely, the comparative value of different groups of fossils in marking geological time. In examining the subject with special care, I found that for this purpose Plants, as their nature dictates, are most unsatisfactory witnesses; that invertebrate animals are much better; and that vertebrates afford the most reliable evidence of climatic and other geological changes. The sub-divisions of the latter group, moreover, and in fact all forms of animal life are of value in this respect, mainly according to the perfection of their organization, zoological rank. Fishes, for example, are but slightly affected by changes that would destroy Reptiles or Birds, and higher Mammals succumb under influences that the lower forms pass through in safety. The more special applica-

\* Delivered before the American Association for the Advancement of Science, at Nashville, Tenn., Aug. 31, 1877.

of this general law, and its value in geology, will readily suggest themselves.

The evidence offered by fossil remains is, in the light of this law, conclusive, that the line, if line there be, separating our Cretaceous from the Tertiary, must at present be drawn where the Dinosaurs and other Mesozoic vertebrates disappear, and are replaced by the Mammals, henceforth the dominant type.

The Tertiary of Western America comprises the most extensive series of deposits of this age known to geologists, and important breaks in both the rocks and the fossils separate it into three well-marked divisions. These natural divisions are not the exact equivalents of the Eocene, Miocene and Pliocene of Europe, although usually so considered, and known by the same names; but, in general, the fauna of each appears to be older than that of its corresponding representative in the other hemisphere; an important fact not hitherto recognized. This partial resemblance of our extinct faunas to others in regions widely separated, where the formations are doubtless somewhat different in geological age, is precisely what we might expect, if, as was probable, the main migrations took place from this Continent. It is better at once to recognize this principle, rather than attempt to bring into exact parallelism, formations that were not strictly contemporaneous.

The fresh-water Eocene deposits of our Western Territories, which are in the same region at least two miles in vertical thickness, may be separated into three distinct subdivisions. The lowest of these, resting unconformably on the Cretaceous, has been termed the Vermilion Creek or Wahsatch Group. It contains a well-marked mammalian fauna, the largest and most characteristic genus of which is the ungulate *Coryphodon*, and hence I have called these deposits the Coryphodon Beds. The middle Eocene strata, which have been termed the Green River and Bridger Series, may be designated as the Dinocerans Beds, as the gigantic animals of this order are only found here. The uppermost Eocene, or the Uintah Group, is especially well characterized by large mammals of the genus *Diplacodon*, and hence may be termed the Diplacodon Beds. The fauna of each of these three subdivisions was essentially distinct, and the fossil remains of each were entombed in different and successive ancient lakes. It is important to remember that these Eocene lake-basins all lie between the Rocky Mountains on the east and the Wahsatch Range on the west, or along the high central plateau of the Continent. As these mountain chains were elevated, the enclosed Cretaceous sea, cut off from the ocean, gradually freshened, and formed these extensive lakes, while the surrounding land was covered with a luxuriant tropical vegetation, and with many strange forms of animal life. As the upward movement of this region continued, these lake-basins, which for ages had been filling up, preserving in their sediments a faithful record of Eocene life history, were slowly drained by the constant deepening of the outflowing rivers, and have since remained dry land.

The Miocene lake-basins are on the flanks of this region, where only land had been since the close of the Cretaceous. These basins contain three faunas, nearly or quite distinct. The lowest Miocene, which is only found east of the Rocky Mountains, alone contains the peculiar mammals known as the *Brontotheriidae*, and these deposits may be called the Brontotherium Beds. The strata next above, which represent the middle Miocene, have as their most characteristic fossil the genus *Oreodon*, and are known as the Oreodon Beds. The upper Miocene, which occurs in Oregon, is of great thickness, and from one of its most important fossils, *Miohippus*, may be designated as the Miohippus Series. The climate here during this period was warm temperate.

Above the Miocene, east of the Rocky Mountains and on the Pacific Coast, the Pliocene is well developed, and is rich in vertebrate remains. The strata rest unconformably on the Miocene, and there is a well-marked faunal change at this point, modern types now first making their appearance. For these reasons we are justified in separating the Miocene from the Pliocene at this break; although in Europe, where no marked break exists, the line seems to have been drawn at a somewhat higher horizon. Our Pliocene forms essentially a continuous series, although the upper beds may be distinguished from the lower by the presence of a true *Eggnus*, and some other existing genera. The Pliocene climate was similar to that of the Miocene. The Post-Pliocene beds contain many extinct mammals, and may thus be separated from recent deposits.

Returning now to our subject from this geological digression—which will hardly be deemed unprofitable, since I have given you in few words the results of a great deal of hard mountain work—let us consider the Tertiary Mammals, as we know them from the remains already discovered, and attempt to trace the history of each order down to the present time. We have seen that a single small Marsupial, from the Tertiary, is the only mammal found in all the American rocks below the Eocene; and yet in beds of this age, immediately over the Chalk, fossil mammals of many different kinds abound.

The Marsupials, strange to say, are here few in number, and diminutive in size; and have as yet been identified only by fragmentary specimens, and most of them too imperfect for accurate description. In the higher Eocene deposits, this group is more abundant, but still represented by small animals, most of them insectivorous or carnivorous in habit, like the existing *Opussum*. From the Miocene and Pliocene, no remains of Marsupials have been described. From the Post-Tertiary, only specimens nearly allied to those now living are known, and most of these were found in the caves of South America.

The Edentate Mammals are evidently an American type, and on this continent attained a great development in numbers and size. No Eocene Edentates have been found here, and although their discovery in this formation has been announced, the identification proves to have been erroneous. In the Miocene of the Pacific Coast, a few fossils have been discovered which belong to animals of this group, and to the genus *Moropus*. There are two species, one about as large as a Tapir, and the other nearly twice that size. This genus is the type of a distinct family, the *Moropodidae*. In the lower Pliocene above, well preserved remains of Edentates of very large size have been found at several widely separated localities in Idaho and California. These belong to the genus *Morotherium*, of which two species are known. East of the Rocky Mountains, in the lower Pliocene of Nebraska, a large species apparently of the genus *Moropus* has been discovered. The horizon of these later fossils corresponds nearly with beds in Europe that have been called Miocene. In the Post-Pliocene of North America, gigantic Edentates were very numerous and widely distributed, but all disappeared with the close of that period. These forms were essentially huge Sloths, and the more important genera were *Megatherium*, *Mylodon*

and *Megalonyx*. The genera *Megalocnus* and *Myomorpius* have been found only in Cuba.

In South America during the Pliocene or Post-Pliocene, enormous Edentates were still more abundant, and their remains are usually in such perfect preservation as to suggest a very recent period for their extinction. The Sloth tribe is represented by the huge *Mylodon*, *Megatherium*, *Megalonyx*, *Celodon*, *Ochotherium*, *Gnathopsis*, *Lestodon*, *Scoladoberium*, and *Spharodon*; and among the Armadillos were *Chlamydochertium*, *Eurydon*, *Glyptodon*, *Heterodon*, *Pachytherium* and *Schistopleurium*. *Glossotherium*, another extinct genus, is supposed to be allied to the Ant-eaters.

It is frequently asserted, and very generally believed, that the large number of huge Edentates which lived in North America during the Post-Pliocene, were the results of an extensive migration from South America soon after the elevation of the Isthmus of Panama, near the close of the Tertiary. No conclusive proof of such migration has been offered, and the evidence, it seems to me, so far as we now have it, is directly opposed to this view. No undoubted Tertiary Edentates have yet been discovered in South America, while we have at least two species in our Miocene, and during the deposition of our lower Pliocene, large individuals of this group were not uncommon as far north as the forty-third parallel of latitude, on both sides of the Rocky Mountains. In view of these facts, and others which I shall lay before you, it seems more natural to conclude from our present knowledge, that the migration, which no doubt took place, was from north to south. The Edentates finding thus in South America a congenial home flourished greatly for a time, and although the larger forms are now all extinct, diminutive representatives of the group still inhabit the same region.

The *Cetecea* first appear in the Eocene, as in Europe, and are comparatively abundant in deposits of this age on the Atlantic Coast. The most interesting remains of this order, yet found, belong to the *Zeuglodontidae*, which are carnivorous whales, and the only animals of the order with teeth implanted by two roots. The principal genera of this family are *Zeuglodon* and *Squalodon*, the former genus being represented by gigantic forms, some of which were seventy feet in length. The genus *Sauyoetes*, which includes some small animals of this group, has been found in South America. The Dolphin family (*Delphinidae*) are well represented in the Miocene, both on the Atlantic and Pacific Coast. The best known genus is *Priscodelphinus*, of which several species have been described. Several other generic names which have been applied to fragments need not here be enumerated. In none of the Tertiary species of this family were the cervical vertebrae ankylosed. The Sperm Whales (*Catodontidae*) were also abundant throughout the Tertiary, and with them in the earlier beds, various Ziphioid forms have been found. The toothless *Balenidae* are only known with certainty as fossils from the later Tertiary and more recent deposits.

The Sireniacs, which appear first in the Eocene of the Old World, occur in the Miocene of our Eastern Coast, and throughout the later Tertiary. The specimens described here all been referred to the genus *Manatus*, and seem closely related to our living species. In the Tertiary of Jamaica, a skull has been found which indicates a new genus, *Prorastomus*, also allied to the existing *Manatee*. The genus *Ithyina*, once abundant on our Northwest Coast, has recently become extinct.

(To be continued.)

## THE RAINY SEASON IN SOUTH FLORIDA.

MANY, I doubt not, in looking at this caption will bring to mind impressions of tropical rainy seasons received from a perusal in the happy days of childhood, of that standard work, "Robinson Crusoe," or in later years, perhaps, from a like story by Charles Reade, though more romantic, by reason of a lady, under the title of "Foul Play," picturing to themselves a dreary succession of rainy days when the leaden skies drip dreary drops incessantly, and never a ray of sunshine brightens and warms the sodden earth. To such I would say: We have a better way of doing these things in Florida, and though we get the water, deluges, oceans, floods of it, it comes in such a happy sort of a fashion as never to cast the gloom consequent upon a rainy day over our mercurial temperaments, but with such dashes of sunshine and shade as to make the rainy season a pleasant one to the Floridian. From the middle of June to the last of August or possibly September 15, the greater half and often three quarters of the entire annual rain fall is precipitated on this part of the State, making of that term, literally, a rainy season. At its commencement the thrifty farmer begins putting his potato-patch in order for planting his new crop, and the unthrifty planter begins to inquire: "Who's got potato vines to spare?" To all it is the potato planting season, for to the sweet potato or "Hity yam" patch our cracker friend looks for the quarter part of his daily bread. "Hity," you understand, represents in cracker parlance, Hayti. Cuttings from the old sweet potato vines from twelve to eighteen inches long are at this season carelessly stuck into the loosely prepared earth, where they quickly root and grow, so thoroughly saturated is the ground with moisture and warmth.

Days, and sometimes weeks, before the regular rains reach the Gulf Coast, their presence is indicated miles east and inland by heavy banks of cumulus clouds whose lower edge is apparently cut square away parallel with the horizon, while beneath this straight edge down the tops of the pines that everywhere mark that horizon is a filling of that deep dark blue shade that is sometimes assumed by the Atlantic under a stormy sky; the back country is flooded, and the rivers that during the winter months are mere brooks in their beds, now come seething, boiling and surging along down to the bays which are discolored by this rain water often out to the Gulf. With this fresh water comes down occasionally an alligator seeking pastures new, only to return later in the season when the freshest has run out. Mr. Gator makes up his mind he will not live in brine; brackish water might do—but brine, never! "He will be pickled first." So packing his trunk

with mullet, pine knots, etc. (the latter as aids to digestion), he takes the back track, drifting up with the flood tides.

The average annual rain fall in this part of the State is fifty-three inches, and as has been before remarked, about three fourths of it tumbles during three months. The astonishing part of the business is the small part of this period actually occupied with this fall. After having seen one of the rain squalls, however, the wonder is that more than one is needed to accomplish it, for really it seems that the entire bottom must have dropped out of the Celestial water tanks, and that they were immense. These heavy showers are not uncommonly accompanied with fierce winds, that to the yachtsman are a source of pleasure or vexation according to the course he or they may be voyaging. It is not wise for him to leave much canvas set upon the chance of catching fair wind, for nothing on earth can be more uncertain in direction and velocity than these squall winds. Coming sometimes with a force that tempts the sailor to set everything, they increase in a minute to the irresistible strength and velocity of the hurricane, covering the water with a sheet of foam and sweeping everything, thus woe to the boat that is carrying sail. The cautious navigator seeing the black line of the squall wind approaching on the water, lowers everything, stops up his sail, and upon getting the full fore of the breeze, again sets such sail as his craft can carry. Years ago while laboring under the mistaken impression that it paid to "drag sail," we took several of these "teasers" running under the jib. Once our boat went "hatches to," and a parting jib sheet saved her from a capsize, and again with a light jib stripped clean out of the bolt rope, we concluded that it wasn't wise to take any chances in these squalls. Seventeen days of terrible suffering from hunger and thirst in an open boat would have been avoided by the captain and crew of a lumber-loaded bark last summer had the captain come to that same conclusion in time. Caught by the squall with everything set, the good vessel rolled over and was found months after in the Gulf Stream keel up, while the crew with part of a barrel of water that washed off the deck, and nothing to eat, worked for the shore in the yawl boat.

Late in the afternoon, or "evening," as it is more generally termed down South here, is the time usually chosen by the showers, and they are so soon over that the sunsets are almost always clear and bright. Up to this time the sunshine is as bright and hot as it seems to be nowhere else, roasting the toiler in the field, while under the shade of the live oak or in the breezy corner of the porch the fortunate individual who has nothing to do may be as "cool as a cucumber." The breezy corner is always to be found, for in the ever changing and varying temperature of our sandy land and sunny sea is found a famous bellows, now sucking in the cool air from the Gulf, and *vice versa*, "to restore the equilibrium," as somebody's Natural Philosophy would tell us when we went to school.

To the artist who desires studies of gorgeous sunsets we would say, that in America's Italy at this season, above a setting sun, he may see all that nature can produce in the way of cloud painting in the western sky; and to the lover of nature who would realize in its full force the majesty of the gods, might watch one night squall from the deck of some vessel in the bay, when the lightning silvers the rushing "white caps," and the drifting sheets of rain with its constant flashes and heaven's artillery, the whole park unites in grand discharges that shake everything to the centre. Language is inadequate to the description of such a scene.

To the new settler from the northland whose orange trees (in the grove he is hopefully calculating will some day secure his fortune) have perhaps been willing and dying under the hot suns and drying winds of the months that precede these rains, this season is one of encouragement. Stimulated by the abundant moisture in earth and air, all vegetation springs into surprising activity. The young orange tree doubles its size in the season, and weeds—well, the place is yet to be heard from where they don't grow pretty well. If perchance the above-mentioned settler has brought with him his fine Scott or Tolley gun, he speedily finds that to keep that gun clean and free from rust is to assume a task that will make his life a burden to him. The stock will gather mold in two days, and rust will gather in about the same number of hours. Well, all this wetness disappears by the middle of September, and leaves us a climate that is as near perfection for the hunter, fisherman, camper, or indeed any who would enjoy out-door life, as could be desired. For the rest of the year a blanket and shelter-tent afford ample protection from the weather, and even these can on occasion be dispensed with without much discomfort. For years we have known an old hermit hunter to whom shelter or blankets are unknown luxuries. Absolutely refusing the proffered hospitalities of old acquaintances, with the beach sand for a mattress the old fellow lies down at night in his rags, with his dogs beside him, and "sleeps the sleep of the just." Seventy years old, with an iron constitution, he has led this life for a score of years on this coast, and promises to hunt a score more. Many a winter night has the writer, tired with fire hunting miles up the wind from the camp on the beach, laid down in the pine straw, beside the deer in some instances that had stopped at the request of his good Winchester, and slept comfortably without even a coat to keep off the dew, confident no rain would fall to disturb the good sleep one earns by a dark tramp in the woods, for don't you see it all fell during the "rainy season."

Manatee, Fla., Aug. 27, 1877.

W. S. WARNER.

—A time ball is dropped from the flag pole on the Western Union building, New York City, at noon by signal from the National Observatory.

## Natural History.

### ABOUT MOTHS.

THE butterflies furnish a very excellent illustration of the order of insects to which they belong. These insects are known as *Lepidoptera* (scaly winged), from one of their leading characteristics, viz., the possession of four filmy wings thickly covered with minute scales, to which the beautiful coloring of the butterfly's wing is due. This, however, is not the only common character by which these creatures are at once united among themselves and distinguished from other insects; the great completeness of the metamorphosis they undergo, from a crawling caterpillar to a creature whose life is spent almost entirely on the wing, with an intervening state of perfect repose, is another distinction, which, although by no means peculiar to the *Lepidoptera*, yet serves to separate them from several other orders of insects, in which the difference between the form of the creature on emerging from the egg and that which it is destined to acquire is much less. A more important character than the scaly covering of the wings is presented by the peculiar structure of the mouth, which in this order consists of a long tongue rolled up in a spiral form between a pair of hairy organs known as *palpi*, or feelers. Different as these delicate organs appear at first sight, from the powerful jaws by which the caterpillar gnaws his destructive path through the foliage of field and forest, the same parts, modified indeed in form, may yet be recognized in the perfect insect that existed in its crawling, worm-like, preparatory state. The strong biting jaws have become very small, although in most cases they are to be found concealed under the other organs of the mouth. But the second pair of jaws, with which the caterpillar masticates his food, have undergone a wonderful transformation—it is from these that the long spiral trunk has been formed. These, in the perfect insect, as in the caterpillar, are jointed organs; but in the former the terminal portion of each is drawn out into a long filament, furnished on its inner surface with two narrow ridges, which, fitting exactly to those of the other filament, form by their union a long slender tube, piercing the trunk through its entire length. The lower lip of the caterpillar also shares in the changes undergone by all the neighboring organs; for in the preparatory state it is furnished with a pair of minute feelers, and with a fine tube, the orifice of the silk apparatus, by means of which when ready to pass into the chrysalis condition it attaches itself to some point of support, or encloses itself in a silken bag in obedience to the instincts implanted by nature. This tube, being of course useless to the insect in its last condition, is then no longer to be found; but the little *palpi* or feelers acquire an enormous development, and form the hairy bed in which the trunk is nearly concealed when coiled up in repose. The antennæ also, which in the caterpillar are very small, are converted in the perfect insect into long organs of very various forms; and the organs of vision, instead of consisting of a few little black points on each side of the head, are developed into those beautiful globular structures which may be seen to constitute the great bulk of the head in any of the common butterflies.

The most striking general difference between the two great groups of *Lepidoptera*, butterflies and moths, is to be found in the form of the antennæ, which in the former are always clubbed at the tip, while in the latter they are thread-shaped or tapering, or sometimes thickened toward the end, but afterward tapering to a fine point. Another distinction which is of still more importance in a scientific point of view, is that in the moths the wings of each side are united during their flight by a small bristle attached to the anterior margin of the hind wing, which passes through a little loop formed on the hinder margin of the fore-wing; this arrangement is wanting in the butterflies.

In the sphinxes, which from their great power of flight are generally known as *Hawk-moths*, the antennæ are always thickened beyond the middle, but taper afterward to a fine point. Some of these have trunks of great length, by means of which they extract the nectar of flowers while hovering over them in the manner of a humming-bird. From this habit and its size and general bird-like appearance when on the wing, one of the commonest of sphinxes has received the name of "Humming-bird Hawk-moth" (*Macroglossa stellatarum*). A nearly allied and very beautiful species is the Drone-hoe Hawk-moth (*Macroglossa fusiformis*), an insect very common to the continent of Europe. The general color of the body is a bright olive green, yellowish at the hinder extremity, where there is also a black tuft of hair on each side; across the middle there is a dark brown band, while the wings are transparent with a dark brown border, the anterior pair possessing also an olive-green patch close to the body. In the Humming-bird Hawk moth the wings are covered with scales throughout, but in form and habits the two insects very closely agree.

In the Death's-head moth (*Acherontia atropos*), which also belongs to the group of Hawk-moths, the trunk, instead of being very long as in the preceding insects, is reduced to comparatively small dimensions, being scarcely longer than the head of the moth, while in the Humming-bird variety it exceeds the whole body in length. The Death's-head is the largest of European moths, frequently measuring upward of five inches in expanse of wing. In general color it is blackish brown, the anterior wings irregularly clouded with dull orange with a white spot near their middle; the posterior are dull and a with two brown bands. The body is banded with

orange and black, and the appearance of the insect is rendered exceedingly remarkable by the very singular marking of the thorax. This bears a large dull orange patch, within which are smaller blackish spots, giving a by no means indistinct representation of a "death's head." This peculiar mark, coupled with the generally funereal character of the coloration of the insect, has obtained for it an unenviable position in the vulgar mind, as its appearance in larger numbers than usual has been regarded, in some localities, as portentous of an approaching pestilence. Singularly enough, in the year 1733 it appeared in great numbers in Brittany, simultaneously with a very fatal epidemic, and so completely did the weaker and more ignorant of the peasantry consider the moth as the cause of the disease, that the sight of one was sufficient to produce the greatest fear in the beholder, who regarded it as the harbinger of approaching death. This moth possesses another curious faculty, which no doubt conspired with the symbols of death with which it is ornamented to raise a feeling of superstitious dread in the minds of those whose attention was called to it for the first time, as when irritated or handled it emits a plaintive cry or squeak. This circumstance has long been known, and though several eminent naturalists have endeavored to explain the mode in which the sound is produced, they have not as yet arrived at any satisfactory conclusion. The faculty of emitting sound is by some believed to be connected with the singular habit of this insect, which renders its multiplication in unusual numbers an object of real and well-founded dread to keepers of bees. The moth has a most gluttonous taste for honey, and is one of the most inveterate plunderers of bee-hives. The bees on its entrance into their domicile generally disperse immediately, as though in dread of the gigantic intruder, who is thus left to surfeit himself at his ease upon the sweets which these industrious creatures had laid up for their winter store. It is certainly singular that a creature, with only the advantage of size, should dare, without sting or shield, singly, to plunder in their stronghold these well armed and numerous insects; and more singular, that it should always contend with them victoriously. Many believe that the thick fur with which the moth is covered prevents the stings of the bees from reaching its body; but it is far more probable that it has the means of spreading terror among their ranks. The caterpillar of this moth is, as might be expected, of great size, measuring oftentimes as much as four inches and a half in length, and two thirds of an inch in diameter. Like all other caterpillars of the Hawk-moths, it has a somewhat lengthened horn attached to the back of the eleventh segment; and it has in common with most of the allied species the habit of raising the anterior segment of the body, supporting itself by adhering to the branch on which it rests by the membranous feet of the hinder segments. In this attitude these caterpillars present to a fanciful mind a slight resemblance to the Egyptian sphinx, which induced Linnæus to apply the word *sphinx* as a generic name to these moths. The caterpillar of the Death's-head moth lives principally upon the plants of the tomato or vines of the potato, and the chrysalis are frequently turned up in digging the tubers of the latter in Autumn. The moth generally appears in October, but is rarely seen by day, preferring twilight or darkness for its aerial flights.

Another beautiful species is the Lime Hawk-moth (*Smerinthus Tilia*), so called from its caterpillar feeding mostly upon the foliage of the lime tree. This moth has the fore wings much notched at the tips, and it varies greatly in color; but in the variety most generally met with, the wings are of a fawn color, with a broad band at the tip, and two olive green spots at about the middle of the anterior wings; the trunk, too, is even shorter than with the *Acherontia atropos*.

The antennæ of the hawk-moths are generally more or less serrated, or toothed like a comb on the inner surface; but this character is by no means so striking as in some other species in which they are, particularly with the males, toothed or pectuated on both sides, the little filaments forming the combs being frequently of such length as to give the entire antennæ the appearance of a delicate feather. An instance of this is presented in the male of the Gipsy moth (*Hypogynna dispar*). In appearance the two sexes of this moth differ considerably from each other, the male being much the smaller, and of grayish color, with some blackish lines and spots on the anterior wings; the female, however, is white with dusky lines, describing much the same pattern as the male. The caterpillar feeds on fruit trees.

A common and beautiful insect, common to the British Isles, and closely allied to the last, is the Tiger moth (*Arctia caja*), which is produced from a large, hairy, bear-like caterpillar often seen feeding upon nettles. The *Chelonia pudica* is another beautiful species, nearly allied to the two preceding. The ground color of the wings is flesh-like, or pinkish white, the hinder wings especially in the female presenting a very delicate shade. The fore wings are nearly covered with a number of black spots, but the hind wings have but two or three spots of variable size; the body too is spotted and banded, but with rose-color and black.

The feathered structure of the antennæ is also observable in the male of the Lappet moth (*Gastropacha gueraufolia*), the caterpillar of which feeds on various trees. This and some allied species have received the name of Lappets on account of the curious fleshy appendages attached to the sides of the body of the caterpillar and which completely conceal the feet. These caterpillars are very hairy, and when they are handled the hairs penetrate the skin and produce considerable inflammation and itching. The moths are also called eggers, from the chrysalis being enclosed in a very smooth, fine, egg-like cocoon. The *G. gueraufolia* is rendered further remarkable by

the curious position assumed by the hinder wings during repose, which, instead of being concealed by the upper wings, as is the case in other moths, project on each side in the form of rounded notched leaves, giving the insect a very singular appearance. The general color is deep reddish brown marked with blackish lines. The silk worm, with the manufactured produce of whose beautiful cocoon we are all familiar, is the caterpillar of the *Bombyx mori*, belonging to the same group as the Lappet moth; and many of our common moths also weave cocoons in which to pass their season of repose in the chrysalis state. But the most singular application of this power of silk spinning is exhibited in the history of some moths, also nearly allied to the preceding, whose caterpillars live together in numerous societies, retiring, after feeding, to a capacious nest of tolerably firm texture, woven by themselves from the materials afforded by their own bodies. Some of these, as the Processionary caterpillar (*Cnethocampa processionaria*), quit their nest, which is usually attached to oak trees, in a regular and well-ordered procession; one takes the lead, and is followed by others in single file generally for a space of about two feet; they then come in pairs for a time, then three, four, or five abreast, and so on until they sometimes march ten or even twenty in a row. All the movements of the leader are faithfully copied by those who follow.

Another species, the *Cnethocampa pityocampa*, or Pine processionary, as its name indicates, attaches its nest to pine trees. The principal enemy of these moths is the larvae of a large and very voracious beetle, the *Calosoma hyocophantæ*, which breaks into their nests and commits vast havoc upon the defenseless inhabitants. Occasionally, however, the tyrant pays dearly for his feast, for when gorged he is no match for more active and hungry members of his own species, who, disappointed perhaps by the vacant nest of their expected prey, feel no scruples about taking it at second hand by an act of cannibalism. Nearly allied to these, and especially to the silk worm moth, is the gigantic atlas (*Saturnia atlas*), which inhabits the East Indies and China. It measures between eight and nine inches in expanse of wing; and other species nearly as large are found in several tropical countries. Many of these insects—some of which furnish a silk which is used in manufactures—have singular transparent spots in the centre of the wings, looking as though pieces had been cut out and replaced by fragments of tulle.

Of the remaining groups our space will not allow us to say much; and we can only refer to the most interesting and numerous of them—the family of *Geometres*—the caterpillars of which are known to entomologists by the name of *Loopers*. Both these names are derived from the singular mode of locomotion adopted. Possessing only a single pair—and that the hindmost—of the membranous feet on which other caterpillars support the greater part of the body, they are unable to crawl like their more fortunate brethren. Accordingly in walking they stretch the body out to its full length, when they attach themselves by their anterior feet, and then, drawing up the body in the form of a loop bring the hinder feet up close to the others, attach them and repeat the process until the desired distance is traversed. Hence they appear to be constantly measuring the distance over which they travel, and from this circumstance the name of geometric caterpillars has long been applied to them. They have also a singular habit of adhering to a branch by their hinder feet and stretching out the rest of the body in such a manner as to present a very close resemblance to a dead twig; and thus no doubt often elude the vigilance of their enemies. The moths produced from these caterpillars are of a much sligher make than those already described; their bodies are slender, their wings soft and weak and their flight irregular and fluttering. They are most truly nocturnal insects, very few of them ever being seen in the day time.

Space forbids our entering upon the history of the vast numbers of smaller moths which form the concluding groups of the *Lepidoptera*, but their economy presents much to attract the attention even of the most careless observer; and the singular habits of the leaf-rolling and leaf-mining caterpillars will afford a never-fading source of interest to any one who will take the trouble to study them.

A USEFUL GULL.—Having had a sea gull (which we found with a broken wing) in our garden for about five years, I can, from experience, state that they are most valuable exterminators of those garden pests, slugs, etc. "Bill," as we called him, was a very clever forager, and the gardener greatly regretted him when some mischievous boys "cooked his goose." I would strongly recommend any of your readers, who can, to at once procure one.—*English Mechanic*.

THE WONDERS OF A FLEA.—When a flea is made to appear as large as an elephant we can see all the wonderful parts of its formation, and are astonished to find that it has a coat of armor much more complete than ever warrior wore, and composed of strong polished plates, fitted over each other, each plate covered like a tortoise shell, and where they meet hundreds of strong quills project, like those on the back of the porcupine and hedge-hog. There is the arched neck, the bright eye, the transparent cases, the piercers to puncture the skin, a sucker to draw away the blood, six long-jointed legs, four of which are folded on the breast, all ready at any moment to be thrown out with tremendous force for that jump which bothers one when they want to catch him, and at the end of each leg hooked claws to enable him to cling to whatever he lights upon. A flea can jump 100 times its own length, which is the same as if a man jumped 600 feet, and he can draw a load of 200 times his own weight.

WOLVES IN RUSSIA.

RUSSIA is still a good deal behind the rest of Europe in dealing with vermin. Wolves, whose heads were formerly a source of income to the borderers of Wales, and of which the last were slain in Scotland by Cameron of Lochiel, make no small figure in the agricultural returns of the Russian Empire. According to a pamphlet edited by M. Lazarevsky, the depredations of the wolves in 1875 alone equaled in damage an old fashioned Tartar invasion. They killed 179,000 cattle, and were the death of 503,000 smaller domestic animals in the forty-five provinces of European Russia alone. Of these, 1,000 head of horned cattle were lost to the Baltic provinces, and to Polish Russia, 2,700 oxen and 8,600 sheep, pigs and goats. If a cow be reckoned at the average price for these animals, thirty roubles, and a sheep at four roubles, the gross sum of the tribute levied by the wolves in European Russia reaches 7,700,000 roubles, or \$5,990,600. This is a sum which would seem worth while looking after, even in so vast an empire as the Muscovite, and must represent quite a number of wolves, which must be dangerous even to human life. In the forests of the Pyrenees and Southern France these animals not unfrequently attack the shepherds, and oftentimes venture within the walls of lonely chateaux and farm houses, yet their numbers are not to be compared with the enormous hosts of savage beasts of Russia, of which we may have some faint idea when we think of the number requisite to carry off a single able-bodied ox. Those authors of Sunday school works, of the Jacob Bliven's and kindred stripes, who invariably illustrate the virtue of self-sacrifice by the story of Eric, the faithful serf who rescued his master's family by throwing himself as food to the fierce and hungry wolves, will be pleased to know that opportunities of practicing devotion in the best style will long continue to be found in Russia.

SHORT-TAILED CATS.—In FOREST AND STREAM of the 6th inst. I notice an article as to the supposed hybrids, in which you state that it is physiologically impossible for them to be a cross between the cat and rabbit. In this you are undoubtedly correct, and the cat sort you may have had its tail cut off. But if it is not a fact familiar to you, I desire to communicate the information that there is a breed of house cats that by nature have short-tails, no longer than rabbits (indeed many of them have no tails at all). Of this breed I suppose fifty illustrations might be found in the town of Huntingdon, Tenn. *Huntingdon, Tenn., Sept. 11, 1877.*

Manx cats (from the Isle of Man), are always short-tailed. The one mentioned, however, had been injured.

THE OLD JERSEY MOSQUITO.—Hadrosaurus Foulkii is the euphonious name of the great lizard whose skeleton stands on its hind legs in one of the aisles, looking as if about to take a kangaroo-leap of about half a mile. Sidney Smith once said it was so hot that, to promote breezy circulation, he would like to strip off his flesh and sit in his boues; and so this lizard skeleton always looked most provokingly cool and breezy in the hottest of the dog-days. It was dug from a marl-bed in New Jersey. If New Jersey antediluvian lizards were of that enormous size, what must the old New Jersey mosquitoes have been? One of them would have spitted a fat man through with his stiletto-bill as easily as a modern cook would a lark, down with him to the top of some umbrageous tree, and after stripping him of his flesh, would have picked his teeth with the poor—or rather the fat—man's bones. They say the South Sea Islanders always have a choice tid-bit of cold missionary lying on their sideboards; but think of one's body being kept as a relish for a New Jersey mosquito as big as an ostrich, and as inevitable and relentless as the undertaker or the tax-collector.—*Ez.*

PEARLS BREEDING.—"Traveller," in the London *Field* says: "Once on board a Peninsular and Oriental Company's boat a lady asked me if I had ever seen 'breeding pearls.' Of course I laughed at the idea, but she produced a two-ounce vial, in which were a number of globular bodies of various sizes, apparently pearls, and some grains of rice. She informed me that the large pearls had been given to her by some Malayan potentate, who told her if she kept them well supplied with rice that they would breed; she assured me that they had done so, and that the 'seed' pearls in the bottle were the produce of the larger ones. She would not let me handle them, so I cannot say what they really were, but I have every suspicion that they were grains of rice which constant attrition one against the other had rounded, as barley is made into 'pearl barley.' My friend was fully persuaded that her pearls produced young ones, and consumed the rice, and nothing could convince her to the contrary."

HEN AND PARTRIDGE NESTING IN COMMON.—Some time ago a farmer near Beaumaris in the Island of Anglesea, North Wales, told me that one of his hens always would lay out in the fields, and that on one occasion he found her nest with ten of her own and six partridge eggs in. He carried all off and hatched out the partridges under another hen. No doubt had the nest been allowed to remain undisturbed, both mother birds would have shared the duties of sitting between them.—*H. W. in London Field.*

—Headquarters New York State Association for the Protection of Fish and Game, Syracuse, N. Y., June 23, 1877. To Colwell Lead Co., 68 Centre street, New York. Gents: We have carefully examined your shot here on exhibition, and have also received the unanimous report from all the clubs on the grounds of the State shoot in favor of your shot. We cheerfully pronounce it a very perfect article, and recommend it to the sportsmen generally throughout the country.

GREENE SMITH, Pres.  
JOHN A. NICHOLS, Vice-Pres.  
CHAS. R. WRIGHT, Sec'y.

—Old Fuller, the eloquent preacher, says: "If thou wouldst please the ladies, endeavor to make them pleased with themselves." You can help to do this by recommending them to use that superb toilet article, "Bobbitt's Toilet Soap." Nothing can equal its excellencies, for its finest oils are artistically and scientifically treated, so that a delicate perfume is the result, without the use of artificial scenting.—[Ado.]

Woodland, Farm and Garden.

THE EGYPTIAN GUM ARABIC TREE (*Acacia vera L.*)—This semi-tropical tree, or, more properly, shrub, rarely exceeds fifteen feet in height, and is remarkable for its peculiar crooked-shaped trunk. Its foliage is of a pale green color, and may be said to be the most beautiful of the acacia family. It puts forth its flowers in March, and its seeds, which grow in a hard coriaceous pod, somewhat resembling the acacia fabiosa, and its seed those of the lupine, which yields a reddish dye, used by tanners in the preparation of leather. This tree, which affords the finest gum arabic of commerce, is a native of the sandy deserts of Arabia, Egypt and the western parts of Asia; it also grows abundantly in Barbary and other parts of Africa, particularly on the Atlas Mountains. In Cairo and Alexandria, in Egypt, many streets are adorned with this tree, which are set on either side. In Morocco, where this tree is called "Attelep," large quantities of this gum are collected for export. The trunk of this tree is covered with a smooth, gray bark, while that of the branches is of a yellowish green or purple tinge. At the base of the leaves there are two opposite awl-shaped spines, growing nearly erect, and having a slight glandular swelling below. The wood is hard, and takes a good polish. The gum exudes spontaneously from the bark of the trunk and branches of the tree in a soft or nearly fluid state, and hardens by exposure to the air or to the heat of the sun. The more sickly the tree the more gum it yields, and the hotter the weather the more prolific it is. A wet winter and a cool or mild summer are unfavorable to the crop. The gum begins to flow in Egypt in December, in Florida in March, immediately after or near the time of the flowering of the tree. Afterward, as the weather becomes hotter, incisions are generally made through the bark to assist the exudation of the gum. The gum, when new, emits a faint smell, and when stored in the warehouse it may be heard to crack spontaneously for several weeks, and this cracking is the surest criterion of new gum, as it never does so when old. Several kinds of gum, yielded by different trees, are occasionally to be met with, but that which is commonly substituted for it is brought from the Island of Senegal on the coast of Africa, and is called "Gum Senegal." This tree is remarkably sensitive to sudden changes of weather, and its leaflets are open only to the rays of the sun. There are several trees growing successfully on Indian River, and appear to be adapted to this soil and climate. This tree is possessed of much merit, and is worthy of culture, both for ornament and profit.—*B. HALL, East Indian River, Fla.*

GERMINATIVE FORCE OF SEED.—Some very interesting experiments were made during the course of this past year by the French scientist Mons. Haberlandt to define the lowest temperature in which seeds would sprout. The seeds of most of the agricultural plants, such as wheat, oats, barley, lucerne, etc., were placed in an ice chest whose temperature is 32 degrees, or slightly above it. The seeds were periodically examined in a temperature that was even below 32 degrees. In forty-five days there were signs of sprouting in eight species, whilst fourteen did not show any signs at all. But here the great fact of life, the want of warmth, was powerfully exhibited, for only a majority of the sprouts showed progress in four months; germination beyond mere incipency had ceased in the others. Another fact was illustrated, viz: that long continued exposure to a temperature no lower than 32 degrees will kill vitality altogether in most species of seeds, for all those which had remained in the ice-box for the four months of the experiments only a few were found capable of germinating in a temperature of 60 degrees. From this fact it may be reasonably deduced that farmers should guard their seed grain from too low a temperature during our long winters.

THE EDUCATIONAL VALUE OF FLOWER SHOWS.—On this subject the *Gardener's Magazine*, England, remarks: "The value of the poor man's flower show is to himself great, but to his children greater. The educational system that prevails is altogether too subjective, and there is but little attempted in the way of teaching the young to observe and reason on their observations. The three R's are of primary importance, but they require to be supplemented by systematic teaching in the open air on open air subjects, and we look forward hopefully to a recognition of the necessity by school boards, not only in towns where the field of observation is contracted, but in the county where it is practically unlimited. We are advised by the powers that be to prepare the children everywhere for catching and killing the Colorado beetle, but their imperfect training in the faculty of observing compels us to fear that in their zeal to exterminate the doryphora they may war with coccinella, that is to say, the potato beetle being much talked of, but as yet unseen, the lads of the village may find consolation in the wholesale destruction of lady bugs, which are among the very best friends of man in the kingdom of insects. The window flower show may be made immensely useful as an aid in the education of the young, and we once more remind the guardians of the youthful poor that a habit of observing, and a taste for a knowledge of nature's ways and means, are of immense importance in the development of manliness, and independence, and intelligence, and morality, and usefulness. The book of nature is worthier to be read than a majority of the books in common use, and it is one of our duties to encourage the young, whether of rich or poor, in learning to read it with a view to the acquisition of useful knowledge, and the cherishing of sentiments of reverence and love for the beneficence that warms the world, and renders capable of happiness every creature.

LARGE PUMPKINS.—A pumpkin that measures over six feet in circumference, and weighs above 200 pounds, is still growing on a farm in California.

We know this to be a fact, for we have seen the same statement every season for twelve years.

SQUIRRELS AS GARDENERS.—A gentleman writes to *Land and Water*: "The strawberries in my garden, although covered with nets, were vanishing very fast. I therefore set a gin at each corner of the bed. The first morning after this was done the servant reported that a squirrel had been caught, which I thought must have been a mere accident. The next morning, however, a second squirrel was all but captured under the net. The felony was therefore proven, but this last thief is still at large."

—Twenty-five thousand watermelons arrived in Boston on Monday. Comment is not so necessary as a little tincture of rhubarb.

WEEDS.—Weeds are usually considered some of the worst enemies with which the farmer has to contend. And there is no doubt that the general opinion of them is correct. Still they are, in one sense, very useful. They offer a strong inducement for the thorough cultivation of the soil. In many cases, if it were not for the weeds no such culture as the crop requires would be given. Many a farmer would not enter his corn field from planting time until harvest if they would keep clean without his help. But such neglect of culture would prevent the growth of productive crops, and consequently the weeds which compel cultivation, where but for them it would not be given, may be said to be of some benefit to the farmer. This, however, is on the supposition that he fights them resolutely during the whole growing season. If he yields to them and allows them to come in and possess the land they will prove the worst of foes. Not only will they injure, and perhaps destroy his crops the present season, but they will also fill his land with their foul seeds, and thus propagate the evil year after year. To the farmer who would be too lazy to cultivate his crops, if it were not for their presence, they are friends and helpers. But to the thorough, energetic farmer they are constant enemies. He would cultivate his crops if there were no weeds, and their presence only makes his work much more difficult than it otherwise would be. To him they are evils with which he must contend. They are in the land, and he must either fight them out or allow his crops to be despoiled. The latter, a truly good farmer, never does. He resolutely undertakes to say what shall and what shall not grow upon his land. And the wise farmer will not only attempt to drive out the weeds, but he will begin early in the season. He knows that it is not half as hard to kill out weeds when they first get through the ground as it is after they have grown two or three weeks and got firmly rooted. He has his cultivators or horse-hoes going as soon as his crops are large enough to make the rows distinctly visible, and he keeps them in the fields so constantly that the weeds never have a chance to grow. This is the easiest and best method of keeping the land clean. Neglect in the early part of the season cannot be fully atoned for by any amount of careful application after the first few weeks are gone. This suggestion is of special importance to those who grow onions for the market or any kind of root crops. Weeding should be done early and often. It is less work, and takes less time to weed a patch of onions four times, if it is done when it should be, than it is to go over it three times after the weed have got a fair start. And the same principle applies just as fully to other crops.—*Working Farmer, N. Y.*

TEXAN HERDERS.—A Texan herder's outfit consists of two donkeys for carrying supplies, a tent, cooking utensils, blankets, a canteen made of tin and holding five gallons of water, a small Mexican pony, two or three dogs, and tobacco. Shepherds receive from \$10 to \$15 per month and board, and overseers from \$25 to \$30. Two men and three dogs can readily take care of 5,000 sheep. Thousands of sheep roam at will over the vast plains, feeding as they go, never sleeping two nights in the same place, except at the home stations. At night these immense herds gather closely around the camp of the shepherd and sleep peacefully, guarded by well-trained Scotch dogs, who exhibit wonderful sagacity and prowess in their midnight vigils, holding at bay the fiercest wolf until by their furious barking they awaken their masters. An area of from ten to twenty miles will be grazed by an ordinary herd in a single day.—*Ez.*

SAVE YOUR TEA-LEAVES.—Tea-leaves steeped, not boiled, for half-an-hour in a tin pan, and strained through a sieve, will give a liquid useful to wash all varnished paint. It removes spots, and gives a fresher, newer appearance than when soap and water are used. For white paint, take up a small quantity of whitening on a damp piece of old white flannel, and rub over the surface lightly, and it will leave the paint remarkably bright and new.

STINGS AND THEIR REMEDY.—I am quite certain, from personal experience, that the juice of an onion will give relief in some of the instances quoted from the *Cultivateur de la Region Lyonnaise*. Therefore I can easily believe that the leaf is of equal use, since both vegetables belong to the same genus, are of like antiquity, and were in former days highly valued for their various properties, though I believe modern times only have brought their sting antidote virtues to light. There is but one objection to the application of an onion—the odor is absolutely dreadful, not so much so when first put on, as it is the following day. I was stung by a wasp on the head and did not get the smell of the onion out of my hair for a week, but it was a perfect cure.—*H. HERBERT.*

GAME PROTECTION.

MASSACHUSETTS—Northampton, Sept. 12, 1877.—The North-stuck Game Club have elected the following officers for ensuing year: President, A. Perry Peck; Secretary, Dr. G. W. Crittenden; Treasurer, John Metcalf; Vice-Pres'ts, C. N. Grabb, Luther Warren. M.

PENNSYLVANIA—Shakopee Farm, Milford.—Pike County, Pennsylvania, is to have an association for the preservation of fish and game, and this time it is believed that the right sort of men—such as Capt. John C. and Moses Westbrock, Hon. D. A. Wells, C. P. Mott, W. K. Ridgway, John Williamson, John Biddis and other true sportsmen—will have control of the organization and make the "wire cartridge" pot-hunter and market shooters take a back seat. This section should be a hunter's paradise, but it will not be that until the shooting of game and catching of fish in close seasons are prohibited, or until those who snare pheasants and net fish have been taught a wholesome lesson. Perhaps the man who supplies Milford with strychnine to poison sporting dogs will take a hint.

AMATEUR.

THE CONNECTICUT FISH LAW.—New York, Sept. 12, 1877.—Commenting on "Seales'" correspondence in last week's number, you state the law in Connecticut as against taking "any bass, etc." A week's abortive effort (off and on) places me in a position to add my sad endorsement about the poor bass fishing, and, if the law reads as you state, I think I know those who would join a crusade against the pond fishers in Niantic Bay. Some such attempt, I believe, was made over a year ago, but failed through lack of the sinews of war. J. S. CARRES.

NEW YORK, Sept. 18, 1877.

EDITOR FOREST AND STREAM:

Allow me to call attention, through the columns of your valuable paper, to the fact that during the past week there have been sent to Fulton Market, from Newcastle, N. B., large quantities of young salmon (grilse), weighing from two to three pounds each.

Now I believe that this is in violation of the law of the Dominion, and I think that it is only necessary to call the attention of the Hon. W. F. Whitcher to the facts, in order that this wholesale destruction of young salmon should be stopped.

SALMO.

Sea and River Fishing.

FISH IN SEASON IN SEPTEMBER.

FRESH WATER.	SALT WATER.
Trout, <i>Salmo fontinalis</i> .	Sea Bass, <i>Sciaenops ocellatus</i> .
Salmon, <i>Salmo salar</i> .	Sheepshead, <i>Archosargus probatocephalus</i> .
Salmon Trout, <i>Salmo confinis</i> .	Striped Bass, <i>Morone americana</i> .
Land-locked Salmon, <i>Salmo gairdneri</i> .	White Perch, <i>Morone americana</i> .
Grayling, <i>Thymallus tricolor</i> .	Black Bass, <i>Micropetrus salmoides</i> ;
Black Bass, <i>Micropetrus salmoides</i> ;	Weakfish, <i>Cynoscion regalis</i> ;
<i>M. nigricans</i> .	Bluefish, <i>Pomatomus saltatrix</i> .
Muscongong, <i>Mox nebulosus</i> .	Spanish Mackerel, <i>Cybinus maculatus</i> .
Pike or Pickerel, <i>Esox lucius</i> .	Cero, <i>Cybinus regale</i> .
Yellow Perch, <i>Perca flavescens</i> .	Bonito, <i>Sarda pelamys</i> .
	Kingfish, <i>Mentidierus nebulosus</i> .

FISH IN MARKET.—We noticed in Fulton Market this week two fine specimens of the dolphin, one weighing 21 pounds, taken near Sandy Hook. An unusual capture was that of a thirty-three pounds branched corvina, which was caught near Nonak, a point much farther north than usually found. Will Mr. Ferguson, the able fish commissioner of Maryland, tell us why it is that no pompanos have been taken in the Chesapeake this season? They were so numerous last year that they were sent to this market and sold as low as ten cents per pound. Our quotations for the week are as follows:

Striped bass, 18 to 25 cents per pound; green smelts, 25 cents; bluefish, 10 to 12 cents; salmon, frozen, 30 cents; green do., 35 cents; mackerel, 15 cents; white perch, 15 cents; weakfish, 15 cents; Spanish mackerel, 35 cents; green turtle, 15 cents; terrapin, \$15; halibut, 15 cents; haddock, 8 cents; king-fish, 25 cents; codfish, 8 cents; black-fish, 15 cents; native herrings, 7 cents; flounders, 8 to 10 cents; porgies, 10 cents; sea bass, 18 cents; eels, 18 cents; lobsters, 10 cents; scollops, \$1.50 per gal.; soft clams, 30 to 60 cents per 100; Salmon trout, 18 cents; sheepshead, 28 cents; whitefish, 16 cents; pickerel, 18 cents; yellow perch, 10 cents; hard shell crabs, \$3.50 per 100; soft crabs, \$1.00 per dozen; frogs, 45 cents per pound.

TROUTING AMONG THE NEW HAMPSHIRE HILLS.

WATERVILLE, Aug. 13, 1877.

Many and varied are the pursuits in a town situated as is this, among the high hills and mountains of New Hampshire, but especially prominent among them is that of trouting. Waterville is at the end of the road which, entered upon at Plymouth, winds for nineteen miles through wood and dale. Mountains stretch their lofty peaks and shoulders high above you on either side, while a sonorous bubbling river rushes through the narrow valley. Mad River is of considerable size, and takes its origin from streams flowing from the mountain slopes back of Waterville. Many brooks constantly communicate with this "main" from the neighboring mountain sides, so that in point of size it presents quite a formidable appearance. This river you follow the whole journey to Waterville. Here one finds a circular level tract, at the farther end of which on a slight rise in land is situated "Greely's Mountain House," one or two stray houses and a farm or two make up the town. It seldom happens that one finds a good house situated at a convenient distance from his fishing ground, from which he can saily forth in the morning and return at evening, having had ample time for a good mess, and none of the discomforts of a wearisome tramp. This river which empties itself finally into the Pemigewasset contains the largest trout, and naturally, for here are the most sizable pools. At this point, fully five miles from its source, its appearance is such as to please the angler; for trees or shrubs do not hang over it in such an irritating way as do those upon some streams, but landing places are plenty. Many lausome messes have been taken here during this and previous seasons, but still sufficient fish remain to entice the angler, and perhaps worry him some. This being near at hand is fished more than its tributaries, and late in the season is not so attractive. Trout are much quicker of course early in the season, when they first put in an appearance down stream after their winter's rest, so that by the end of July they become very shy, especially the larger ones. One must pass now to the smaller streams, but experts often are unwilling to trampa whole day after a large string of small or even average sized trout; they prefer in many cases to select their pools, fish diligently for large ones, and return with them or with none at all. Not every one can take the large ones; it requires a great experience with regard to the nature of the fish, as to flys and the way of throwing them; but especially must one have patience. Only yesterday I heard of a gentleman who has been for two years to the same pool, in order to capture a large one which he knew to be there, getting him this his third season, and feeling amply repaid for his trouble by finding it to weigh one pound. A fish of this size may not seem above the average to one accustomed to lake trout, but a brook trout of a pound is rather uncommon. A number of messes of eighty or ninety have been taken from this river lately, very good for this time of year. The west branch taking its rise in the top of the ravine, which separates the slopes of Oscocla from those of Tecumseh, and flowing eastward, is the largest of the branches. It is three or four miles long, is filled with deep pools, roaring cascades, and is fishable over its whole extent. The upper portion is of course the best for our purposes, for the reason that seldom any one cares to travel the distance. A very pretty path leads through the woods along the banks of the stream for nearly two miles. This saves that walk over the stones in the brook, which is so uncomfortable when one is not

fishing, but whose disagreeableness vanishes so soon with the beginning of the sport. Where the path ends good fishing begins and one can be sure of it here, if those who have tried it are to be believed. No one, as far as I can find, has fished on this stream more than three-quarters of a mile at a time, and all have brought in good messes. Too great care cannot be taken to distinguish the place well, when any doubt is occasioned by a fork in the stream; for oftentimes persons are misled by their recollections, and taken out of their way. Greely's Pond, some four miles distant from the house, is another fine spot. The pond is filled with large trout, but is very little fished. One can hardly get there before tea in the morning, if he wishes to take breakfast in the house, and the best fishing in the day begins just as he is compelled to leave. The only way to secure anything at all is to remain over night, fishing late in the evening and early in the morning. The spots in a hollow among mountains, whose sides rise perpendicularly round about it, making fishing rather hard without boat or raft. Some fine fish have been brought from this pond, and I have no doubt that finer fish are in it than have ever been drawn from it. No other kind of fish has ever been seen here, and this alone is sufficient to convince one that large trout must be in it. The brook leading from this pond, together with that from the "Flume," form the Mad River, though, of course, they are by no means its only tributaries. The flume, similar to the great flume in the Franconias, though, of course, not so remarkable, is a very interesting spot. High cliffs of solid rock raise themselves to a height of one hundred and fifty feet, between which, over shelving rocks and forming itself into beautiful cascades, runs the brook. In length it is fully two hundred feet, the perpendicular height of the walls gradually diminishing toward the farther end. This picturesque spot is little visited except by old "tramps," because of the difficulty in reaching it. The path, in many places, through neglect, has become overgrown; trunks of trees and dead leaves have covered it, and the blazes are often very indistinct; with little trouble, however, it could be made as fine as any of those nearer home. The stream, sinking abruptly and rapidly at first, soon takes a gradual descent, and here the fishing begins. The convenient landing places so much sought are missed upon this brook. Trees, in many places, grow close to the edge of the water, and numerous are the logs and sticks scattered throughout its whole extent. In many cases pools could not be more successfully blocked to the angler. A good temper is not a bad companion on this stream, but the chances are that it will be spoiled. Nothing is more irritating than to catch your fish and lose him, not through any fault of your own, but because of overhanging trees. Often the fish is of secondary importance, your tangled net engaging your attention, especially is it so if one is short of tackle or hooks. Two messes—of two hundred and twenty-six and one hundred and fifty—were taken here last week, and no one knows how many have fished it before this season. The slide brook is another one of the many excellent streams about here. The bed of this stream was greatly widened eight years ago by a torrent which swept down the valley from the side of the mountains, whence it takes its rise. During a thunder-storm a rain cloud is said to have burst upon the mountains, filling the stream to overflowing, and forcing boulders and other obstacles to its progress into a wild, confused mass before its roaring torrent. Great gulches were hollowed from solid rock, so immense was the force of the water; stones of large size were carried for miles, and every opposing thing was torn up and swept before it. The stream's bed was widened to four times its original size, rocks heaped together and scattered in it and along its banks, many of them forming splendid hiding places for the fish. The trees being carried away on both sides, the angler has exceptionally fine standing and landing places. This and the Cascade brook below it being the nearest to the house, are the most fished, but I doubt if one ever had easier trout fishing than is obtained here early in the season. Many streams back in the mountains are very seldom fished—once a year, perhaps—only few anglers taking the trouble to worry through the dense and untraveled woods. Sawyer's River, rising back of Greely's Pond, is the least visited. Its course is through a country covered with dense forests, where there are no habitations and where man is seldom seen. In this stream there is fine fishing, but few relish the trouble of getting there and back when good messes can be caught about the house. It would be impossible to return the same day, and indeed one would not wish to, if he found himself repaid for his tramp. Other streams flowing in different directions take their rise near it, all of them nearly as good as Sawyer's River. A good deal of trouble is often experienced by green hands at the sport in such forests as these are about here. At times the path is excellent, but more often it comes abruptly to an end, three or four blazes suddenly appear in different sections, confusing one badly. It is by no means a pleasant thing to be left in a dense and trackless wood when night is coming on; for one is certain to miss the way home, and might go farther from it. A short time ago, a gentleman fishing in this region wandered from his brook to one on the other side of the mountain, appearing after a day or so in some out of the way place far from Waterville. Easy indeed is it when you are interested in your sport, to slip from one side of a ridge to another, and continue down, supposing you are nearing home. It is a good plan to make some mark of your own when you leave a stream, or wish to find again a particular spot on it, not trusting to your memory; for often two or even three places on the same stream resemble one another so closely that it is mere chance if you choose the right one. These streams which I have mentioned are by no means the only ones in the region. Swift River and many others whose names I know not, are quite celebrated for their trout, not to speak of the very small brooks. Little brooks from one to two feet wide are often prolific in trout. Many persons in search of fishing pass them by in contempt, laughing when you suggest that trout might be caught in them; but before they become good fishermen that notion must depart. A little streamlet, not a foot wide, running in front of our boarding house, which every one has passed again and again, yielded the best mess in point of size and numbers for the time of fishing that has been seen here this season. Six fish weighing about a quarter of a pound each were taken from what seemed to be a small mud hole. These fish had undoubtedly been there for years, no outlet with the river affording them a chance to swim down. No larger fish are taken from these streams than others in the mountains, but one can be sure of getting always a fair string of average sized ones. To see the wholesale way in which they are caught is discouraging to a fisherman who really loves the sport, for it seems almost impossible that any should remain in the course of a few years if the slaughter is continued. Some bring in fish two inches long and under, instead of throwing them back into the stream and giving them a chance to attain some size. A peculiar personage has been about here fishing for the past two weeks in the shape of a one-armed man. His object is to catch as many as he can to sell, and for this reason all here are

down on him. Large or small serve equally well his purpose, for every one helps tip the scale. He is an exceptionally fine fisherman, and always manages to bring in a good mess. It has become quite a standing joke among us fishermen when the fish do not take hold well to lay it to the one armed man's having been ahead of us. Worms I find on the whole to be much more acceptable as bait than the fly, though the latter is perhaps fully as good to secure the older ones. I have seldom seen a place more comfortable as a resort coupled with a region more full of fish than this. The presence of such good fishing is undoubtedly due to the distance of the place from Campton and other surrounding towns. The eleven miles from Campton are done away with by the position of Greely's, and reduced to the three or four which we have to tramp from here in order to secure an excellent catch. Many persons also hesitate to come here thinking it too far from the stores and other requirements of a comfortable town, and very fortunately, for the longer the pleasant points of the place are hidden to them the better will be the fishing. One of course can find plenty of fishing away from civilization, in the Adirondacks or in the woods of Maine, but a pleasant summer resort with trout fishing near at hand is an uncommon thing. Even if one does not care to fish a full round of amusements can be found here. Many beautiful paths lead through the woods to cascades and waterfalls of uncommon brilliancy. There is plenty of fine and picturesque scenery, and many of the choicest views in this region are obtained from clearings on the mountain streams. The place is an uncommon one in many particulars, the views from some of the mountains round about are considered remarkably fine. ANGLER.

MOVEMENTS OF THE FISHING FLEET.—The receipts of Bank fish the past week have been the largest of any week during the season, 24 arrivals having been reported, with an aggregate of 345,000 lbs. halibut and a trifle over 2,000,000 lbs. of codfish. 24 arrivals have been reported from Georges, with about 280,000 lbs. codfish and 5,000 lbs. halibut. Only two vessels arrived from the Bay St. Lawrence, each with 150 lbs. mackerel, and there is no news that is very encouraging from that quarter. Some of the shore fleet have met with a little better success, and the 20 vessels arriving the past week have landed about 1,000 lbs. Total number of fishing arrivals for the past week, 70.—*Cape Ann Advertiser, Sept. 14.*

CONNECTICUT—New London, Sept. 13.—We have had fine blue fishing of late; parties going to the Race returning with large catches. One party caught 90 in two hours, the largest weighing 14 pounds. MISAL.

Kinsey's Ashley House, Barnegat Inlet, Sept. 15.—Bluefish since the storm have been scarce. Blackfish only middling. Sea bass plenty and running good size. Bart bite slow. A party of ten ladies and gentlemen from the yacht Sans Soucie took some 15 odd sea bass in one slack water off the stone piles in front of the house. The venerable enthusiastic sportsman, Col. E. P. N. Y., took 17 sea bass and bart, averaging 1 1/2 lbs. one slack water, from this place. As I am writing I can see his rod bend recving them in; and from his actions his score to-day will be heavy. B.

OHIO—Sandusky, Sep. 11.—This is an excellent place for black bass fishing, spring and fall, and the lovers of that sport may be benefited to know where, at no very great expense, they can have any amount. Kelley's and Put-in-Bay Islands, distant 12 and 20 miles respectively from the city, are the best points to operate from, as they are well provided with hotel accommodations, boats, minnows, etc.; besides, the fishing in their immediate vicinity is superior. The past spring has far exceeded any previous season, and the catches during favorable weather have been astounding. The fishing season at the Islands has just opened, and we hear of several good hauls. In about ten days it will be in full blast and continue until the last of October. NIMROD.

CANADA—Ontario, Muskoka, Sept. 13.—Fishing improving this month. During August but few muskonge were caught, and bass fishing not emptying. Nevertheless, the many small lakes and rivers have been visited during almost the entire summer by numerous camping parties. This district is becoming a provincial pleasure ground.

ANCIENT ATHLETICISM.—In *Macmillan's Magazine*, Professor Mahaffy gives an account of Greek athletics, which might be read with pleasure by a fighting publican. At least, most men of that kind would be rather interested to know that the Greeks, with their wonderful forms and their devotion to the arena, missed the secret of training, as they missed to a great degree the secret of medicine. They fancied, being a Southern people, with the habit of feeding temperately, that they could train best on huge meals of meat—"The discovery of Dromeus was adopted by Greek athletes ever after, and we hear of their compulsory meals of large quantities of meat, and their consequent sleepiness and sluggishness in ordinary life in such a way as to make us believe that the Greeks had missed the real secret of training, and actually thought that the more strong nutriment a man could absorb the stronger he would become. The quantity eaten by athletes is universally spoken of as far exceeding the quantity eaten by ordinary men, not considering its heavier quality." It follows, of course, that Greek athletes did not perform very wonderful feats, as feats are considered in modern times. It is probable that their running was very bad, for they made the course only 125 yards long, and were accustomed to cover that distance with their arms going like the sails of a windmill, and shouting as they ran—two actions which a modern trainer would pronounce fatal to speed. Their wrestling was rather fighting, for it was allowable in the wrestler to break his opponent's fingers, and one man made a practice of it, while their jumping was probably "standing jumping," and they carried dumb-bells in their hands. The most extraordinary stories are related of these jumps, but they are probably exaggerations, and one, the celebrated jump of Phayllus of Kroton, certainly is. He is said to have jumped fifty feet on level ground, double the longest leap ever recorded of a horse, and absolutely impossible. The boxing was really fighting with knuckle-dusters, or with weights carried in the hand, and it seems certain that the blows were given downward or round from the shoulder, as little boys give them, for "a boxer was not known as a man with his nose broken, but as a man with his ears crushed." The violent probability is that Tom Sayers would have thrashed any Greek boxer in five minutes, that Captain Webb would have drowned him in an hour or two, and that O'Leary would have beaten him in any walk or run, though the specialty of the Greek runner was endurance. The human frame has not degenerated, but improved; and scientific medicine has taught us how to train, though it has not yet taught us all the secrets of endurance known to the lower races. A Turkish linnal lifts weights that would kill an English porter, and a Peruvian would, we imagine, without training, but with cocoa, outwalk Weston or O'Leary

The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

THE CARE, TRAINING AND MANAGEMENT OF DOGS.

AS the taste for field sports increases, we hear from every quarter the inquiry: "How shall I obtain a good dog?" This is a question that must be answered largely by the common sense of the propounder. While believing that every one in need of an animal should take the same pains to inform himself as to the characteristics and points of the race, in the same manner as he would if a horse were desired, we are aware that many have not the time, or lack the inclination for such study. Such we would advise to put themselves in communication with some dealer of known character and reliability, with the determination to abide by the result. Some men never are, and never can be satisfied; for the reason that few have the honesty to acknowledge that they do not know how to break or handle a dog, and such usually ruin the animals that they purchase. Hence from overweening self-sufficiency and superficial information on the one hand, opposed to practical knowledge on the other, arise most difficulties between the purchaser and the dealer. We are convinced that if the most skillful of breakers should sell twenty of the best dogs ever whelped to the same number of purchasers, allowing them the privilege of trying them and then returning if they failed to suit, at least one-half the animals would be thrown back upon the breaker's hands, and he himself slandered. And this difficulty will continue, for the reason that almost every man who shoots well believes that he must necessarily be fully competent to undertake the management of dogs. To be able to shoot well is to be desired; though there is no great difficulty in acquiring the art; there are plenty of men with but a mere modicum of intellect who are proficient; but to be able to handle a dog skillfully is a very rare and much to be desired accomplishment—one well worthy the close attention of every sportsman, particularly if compelled to purchase dogs broken by other hands. A skillful handler has no difficulty in purchasing a good animal, because he knows what to expect from a strange dog, and how to work to gain his confidence; on the other hand, there are many purchasers who never give an animal a chance to show his education, and saddle their own ignorance upon the dog and his breaker.

While it is frequently argued that each one should break his own dog, and while allowing that there is much to be said in favor of so doing, it cannot be denied that the number of those who are capable of the complete self-government necessary to the successful education of the animal is extremely limited. As proof of this, look at the numbers of children, and the training they receive! If we cannot successfully control them, how much less can we hope to succeed with an animal to whom speech is denied, and in which the power of understanding is but limited.

It is not within our province to point out the choice of breeds, distinctions of color, etc.; these being matters in which the purchaser must please himself. But a few hints of a general character may not be amiss.

First satisfy yourself as to the antecedents of the animal in question. Purchase no dog whose pedigree is entirely unknown, at the same time avoiding all suspicious taint whether of form, character, or disease. See him in the field (if broken), and under the gun; note well his mode of ranging, and that he does not rake. See that he possesses a good nose, is staunch on point and charge, heels properly, is not gunshy, is a tender-mouthed retriever, and quick to respond to command. Study his trainer's mode of delivering his commands, and if he be a foul-mouthed, loud shouting individual, shun both him and his dogs; for you may be assured that he who uses expletives in abundance, and bellows at his dogs at the top of his voice, is not possessed of the temperament requisite for their proper training. Even if they appear well broken, it is not seemly to purchase animals, in the working of which it becomes necessary to transform yourself into an animated fog-horn, alarming both the neighborhood and the game. Better than all is the dog who works by the silent method, obeying the movements of the hand.

Not only see the dog in the field and note the breaker's method of working, but try your hand under his supervision. Nothing is more detrimental than to attempt to work a dog whose ways you do not know, and who likewise does not understand yours; the result is always disastrous; you lose your own self-command as well as the animal's respect for you, and in sheer self-defense he becomes sulky; the crack of the whip with an accompaniment of oaths does not mend the matter, but probably irretrievably ruins the animal.

Having satisfied yourself as to physical attributes and obtained your dog, do not at once turn him over to another to feed and care for, but let this duty devolve upon yourself alone. When a dog changes masters he will attach himself to the first person who treats him kindly; consequently it is important that you be the one to whom the affections of the animal are transferred. Take full charge of him then, and feed with your own hand until he has learned to know your person, your voice, and to look with pleasure for your coming. As soon as safe, let him loose from the chain, take him to walk, and attempt to gain his confidence by gentle coercion and kindness, showing him meantime that you are his master and that he must obey. A few days' attention, with the exercise of reasonable skill and patience, will accomplish all this, when he may be taken to the field.

Let it be remembered that no dog can be so perfectly broken that when he goes into the hands of a stranger he will at once work and obey him with the same readiness that he exhibited toward his former breaker and master. Also take

him out alone, as no dog will or can work well in a new place and among strangers; to demand such would be to ask more of the animal than could be expected of yourself. Working a dog alone for a single day, or even half a day, will have the effect to start him right, and save trouble and vexation afterward. You may have to use the whip, but in such a case apply it judiciously, without anger, pointing out to the animal his fault. By no means lose your self-control, for the result will inevitably be disastrous, both to the animal and yourself.

As before, if gentlemen who purchase broken dogs to shoot over could be impressed with the necessity of exercising good judgment in their management, there would be no difficulty in purchasing good, staunch, well-broken dogs. In consequence of mismanagement many breakers will not sell a dog to any one, unless they know to a certainty that the purchasers possess skill and will exercise it. Many trainers refuse to break dogs for strangers at any price, for fear the animals will pass into the hands of bunglers and thus be condemned.

It is important that your animal be provided with a proper habitation. It is true, a dog can be kept in a barn or a stable, but those who keep them there can best inform you whether their dogs are capable of answering the purposes designated. The sense of smell is acute in the dog, and as every odor that salutes the nostrils owes its flavor to the motelike particles held in suspension in the air coming in contact with the sensitive membrane with which the olfactory are lined, we cannot but suppose that the stench of the effete material, decaying vegetable matter, and ammoniacal gases, which constantly originate in and around such buildings, are more or less detrimental to the nose of the animal.

"The merciful man is merciful to his beast." Exercise that mercy and build your dog a house in the open air, away from the barnyard, and so far distant from other buildings that they may not interfere with either the sunlight or circulation of pure fresh air. Give him a large yard to run in, and plenty of grass under foot; above all see that quitch or dog-grass (*Trisetum repens*) is planted therein, for it will not only be eagerly sought and eaten by the animal, but goes far toward preserving his health. If more than one dog is kept, a building of two rooms may be erected, each opening into separate yards, that one may be occupied while the other is cleaned, or for convenience of separating the sexes. Doors and windows are essential to admit of free entrance; and a free circulation of air. The bench on which they lie should be fronted that the dogs may not crawl underneath, and provided with plenty of bedding in the shape of straw, shavings or beach sand; if none of these are available, spruce cuttings may be substituted with advantage. An excellent plan is to have the bench movable on rollers, that it may be trundled about freely, and even run out doors. Let the bedding be shaken up and aired in the sun each day, and at least once a week replaced by fresh material, the benches and room having first undergone a thorough scrubbing. The yards also should be cleaned and raked frequently, every attention being paid to neatness and cleanliness, as dogs are liable to many diseases to which poverty and nastiness will very much contribute. Turpentine or strong whitewash will be found to aid in the prevention or eradication of vermin. If the floor be of wood, see that it is thoroughly wiped and dried after cleaning, and before the dogs are allowed to enter the house, as damp is prejudicial to canine health.

House your dogs every night, but turn them out on going to feed them in the morning. At such times a little attention to their coats will not be amiss, such as combing and brushing; when the hide is very greasy a little chalk rubbed in before brushing is advantageous. Water should be supplied in abundance, that the animals may drink when thirsty. If a pure stream be led through the yard, all the better; but if this be impossible, supply them freely with queensware drinking pans, which must be kept in the shade, and emptied and replenished twice each day, being thoroughly washed at each alternate refilling. If a piece of roll brimstone is kept in the water pan, it will aid materially in keeping the dogs in condition. Iron dishes, even when porcelain lined, are not to be used, the metal itself oxidizing, and its porcelain lining containing lead and arsenic in dangerous quantities.

If but one animal is possessed, a small dog house will suffice; but let the roof be not only water tight, but see that it projects sufficiently beyond the ends and sides to protect them from the driving rain. The top may be made movable for convenience in shaking up the bedding, and sunning and airing the interior. The house should moreover be raised sufficiently to avoid the dampness of the ground underneath, and provided with a door hung from above in such a manner as to easily swing in or out. Avoid the general fault of too small a kennel, many of them not allowing sufficient room for the occupant to turn round comfortably, and see that no projecting and unclinked nails remain which may injure the eyes.—*Hallock's Sportsman's Gazetteer.*

—Dr. Strachan has just received from Mr. Smith of Strathroy, a Leicester Peers puppy, four months old, lemon and white, which he names Lady Leicester. She is to be added to the N. Y. Kennel Club kennels.

NAME CLAIMED.—I claim the name of Ross for my liver colored setter dog pup, out of Lakin's Ned and Dunham's Jessie, born June 23, 1877.

—I claim for my Dan—Petrel field trial setter dog pup, whelped July 23, 1876, the name Thorn; and for my Ranger, Minnesota pointer dog pup, whelped July 7, 1877, the name Robin Hood. W. H. DEANE.

SPLIT BAMBOO RODS.

To Our Customers and the Public: In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON, Manufacturers, 65 Fulton Street, N. Y.

THE NEW YORK SHOOTING COAT.—Mr. H. C. Squires, No. 1 Cortlandt street, is the inventor and manufacturer of a brown velvet shooting coat which leaves nothing to be desired. The pockets and lining are made to take out, so that it may be worn for early fall or winter shooting. Not the least among its many excellencies is the game bag attachment. Call and examine and you will no longer be without one.

Game Bag and Gun.

GAME IN SEASON FOR SEPTEMBER.

Moose, <i>Alces malehicus</i> .	Black-bellied plover, or ox-eye, <i>Synotaria heticca</i> .
Caribou, <i>Taraxius rangifer</i> .	Ring plover, <i>Epiptitis semipalmatus</i> .
Elk or wapiti, <i>Cervus canadensis</i> .	Red or Va. deer, <i>O. virginianus</i> .
Squirrels, red, black and gray.	Hares, brown and gray.
Beaver, <i>Castor canadensis</i> .	Woodcock, <i>Philohela minor</i> .
Red or rice bird, <i>Dutchingsia oryzivora</i> .	Red-breasted snipe or dowitcher, <i>Macrorhamphus praticus</i> .
Wild turkey, <i>Meleagris gallopavo</i> .	Red-backed sandpiper, or ox-bird, <i>Tryngus americanus</i> .
Plumbeous grouse or prairie chicken, <i>Cathartes capio</i> .	Great marbled godwit or marlin, <i>Limosa fedoa</i> .
Ruffed grouse or pheasant, <i>Bonasa umbellus</i> .	Willow, <i>Totanus semipalmatus</i> .
Quail or partridge, <i>Ortyx virginiana</i> .	Tattler, <i>Totanus melanoleucus</i> .
	Yellow-shanks, <i>Totanus flavipes</i> .

"Bay birds" generally, including various species of plover, sand-piper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets, etc., coming under the group *Limacoles* or Shore Birds.

"The frequent alteration of game laws makes such confusion that sportsmen are kept quite in the dark as to when shooting on various kinds of game is permitted. We therefore append the following table for reference:

States	Pinnated Grouse.	Ruffed Grouse.	Quail.	Woodcock.
Ill. ....	Oct 1 to Jan 15	Oct 1 to Feb 1	Nov 1 to Feb 1	Sept 1 to Jan 15
Ind. ....	Oct 1 to Feb 1	Nov 1 to Jan 1	Nov 1 to Jan 1	July 1 to Jan 1
Iowa ...	Aug 15 to Dec 1	Sept 15 to Dec 1	Oct 1 to Jan 1	July 1 to Jan 1
Minn. ...	Aug 14 to Oct 1	Oct 1 to Dec 1	Nov 1 to Dec 1	July 3 to Nov 1
Wis. ...	Aug 15 to Nov 1	Sept 15 to Jan 1	Sept 15 to Jan 1	July 4 to Nov 15
Neb. ...	No Shooting	No Shooting	No Shooting	No Restriction
Kans. ...	Aug 1 to Feb 1	"	Oct 1 to Jan 1	"

CONNECTICUT—A black bear is reported in the woods of Orange.

MASSACHUSETTS—Northampton, Sept. 12.—The Nonotuck Club propose to sow several bushels of wild rice seed about ponds and streams of this vicinity, for the purpose of attracting ducks this way.

Boston, Sept. 13.—I am just returned from a four weeks' trip to the wilds of New Brunswick, camping on the Kilburn and Shogomoc. Have had glorious sport, my last day's bag consisting of seven grouse, three ducks, one crane and two bears. LOT WARFIELD.

New Bedford, Sept. 15.—Woodcock are very scarce in this vicinity. Shore birds mostly all gone, except mosquitoes, which are "ortful." Large covies of partridge and quail give token of first-rate fall shooting. CONCHA.

Salem, Sept. 17.—Gunning has been, owing to dry, hot weather, rather scarce of late. Some coots have been seen off Emerson's Rocks, Ipswich Bay, the past week, and the first, a cripple, was seen in Salem Harbor last week. Geo. Stone killed 8 out of 11 blue wing teal in Mill Pond, this morning. Pitman & Brother, of Swampscott, lately shot 12 black breast plover with some other birds on Lynn marshes. TEAL.

NEW YORK—Candaigua, Sept. 12.—Sportsmen are making fine bags of ducks now on Candaigua Lake.

Barnegat Inlet, Kinsey's Ashly House, Sept. 8.—Your correspondent killed yesterday seventy-six mud hens (king rail). Black ducks are abundant.

Sept. 15.—Black ducks can be seen morning and evenings in large flocks moving about our sedges or islands. Some sprig-tails reported, and a large sprinkle of teal. Our season commences Oct. 15th. Bay birds not very plentiful. B.

PENNSYLVANIA—Brush's Mills, Sept. 17, 1877.—Deer are quite plenty south of here, at Blue Mountain and along the St. Regis River. Several bears have been killed on the 16 Mile Level and vicinity. Ruffed grouse are numerous also. I saw in August several flocks, one of 15 nearly grown. They are not much hunted. Mr. Merrill, formerly of the Blue Mountain House, when looking for deer on the river the other day, close by the house, shot at and wounded a large panther as it was crossing; he followed it until dark, but did not overtake it, though he saw two places where it had torn up the ground in its pain and rage, and found considerable blood in the tracks.

OHIO—Sandusky, Sept. 11.—As yet the duck shooting in this locality is rather slim, but when the open water ducks come it will live up. Mallard and blue-winged teal breed quite extensively in our marshes, but they have been shot at so much since the 1st of Sept., that they have sought quieter feeding grounds. Quail will be unusually plenty all through this part of the State, more so than ever before; but as the law is not off until the 15th of Nov., and closes the 1st of Jan., it will make the season very short, but from all appearances it will be lively while it lasts. NIMROD.

FLORIDA—Maitland P. O., Orange Co.—Deer are very plenty near here.

TEXAS—Galveston, Sept. 12.—Bay birds are arriving in large numbers. Plover are in fine condition, but scarce. Teal duck are reported in Harris Co. I shot the first on the island, yesterday. There is good prospects of sport for fall shooting. B. R. B.

WISCONSIN—Oakfield, Sept. 13.—The duck season opened Sept. 1, since which time we have had some fine shooting on Horrieau Marsh. Bags have been made, ranging from one to forty in one day, according to ability of sportsman, and some have been reported as large as seventy-five. Your correspondent bagged sixty-three mallard and blue-winged teal in two mornings' shooting. HORMOON.

KANSAS—Chillicothe, Sept. 17.—The quail crop is simply enormous this year.

NEVADA—Deer are unusually plenty at Lake Tahoe, and many hunting parties have started out for the sport.

CALIFORNIA—Santa Monica.—Deer, water fowls, quail and rabbit shooting offers rare inducements to gunners this season.

CANADA—Ont., Toronto, Sept. 13.—Duets at Long Point and the St. Clair flats promise this season to be averagely plenty, and knowing ones anticipate heavy bags.

—The Marquis de Lorne, it is said, will visit Nova Scotia next month to hunt moose.

DUCK SHOOTING AT LEWISTON.

Did you ever shoot ducks at the Lewiston (Logan county, Ohio), reservoir? Ten years ago you would have thought it a perfect "wilderness of sin." I well remember the first time I stood on the dyke, and the feeling of awe with which I beheld the seemingly limitless extent of blanched tree-trunks standing out of the water like whitened sepulchres, grotesque tomb-stones, or a veritable City-of-the-Dead peopled with the bleached and mutilated forms of a vast array of the "Monarchs of the Forest," struck with death, erect and in disorder. The cause? Men dammed a stream which flooded 11,000 acres of forest, swamp and prairie. In this case forest and stream disagreed; the forest was drowned. Wind and weather soon stripped the trees of smaller branches and bark, and in their bleached state they seem (until we become familiar with them) actually ghastly. Many, of course, were fallen, making boating of very circuitous waka. Standing trunks were so numerous that a few rods from the shore it was impossible to see out; and to go without a guide was to be lost in broad daylight, only the practice eye recognizing the different channels where (to the new comer) everything looked alike. To be out after dark was avoided by the oldest guides, and many stories—some laughable, some serious—are told of the lost. After ten or twelve visits (ducking) of a week each, and "padding our own canoe," we learn the "chancia" and landmarks. There are about 3,000 acres of green islands, 4, e. live timber. The observant man will learn the outline of the tree-tops, also of the more grotesque or noticeable trees, etc., where he may find his way on a bright night. To those who have been there, pleasant memories may be awakened by mention of some of the local names—the Mill Pond, Buckwheat Patch, Mud Branch, Orchard, Wolf, Otter-Lake and Buzzard Islands, William's Swamp, Indian, Otter, Sinking and Black Lakes, the Willows, Cranetown, Steinmetz Prairie, the different sloughs, etc. The reservoir is used as a canal feeder, and the water varies about ten feet in its height. At a low stage of water boating is very laborious, as logs must be crossed that stand out of water. At the high stages it is easier, but the ducks are more scattered and we have further to pull. Black bass abound, but seem capricious in their tastes, some seasons biting well, and at other times not at all. Small striped bass may be caught by the boat load, but being no piscifish rod—and something of a Nimrod, can speak more adverbially of the shooting. The reservoir has been a famous place for ducks, and some good bags may still be made. About three years ago Geo. Ayer killed 123 woodcock in part of a day, most of them early in the morning. Standing knee-deep in water, his gun was kept cool by repeated dippings. Good mallard shooting may be often had, together with teal, widgeon, pintail and other shoal-water fowl. Later in the season geese are plentiful. This brings to memory a lucky capture by Frank C. His boat was secured in a natural "blind" made by the upturned roots of a great tree, together with a bunch of willows. A drove or "team" of geese—long heralded by their honking—passed directly over his head, not over twenty yards high; so near that No. 5 shot instantly killed the leader, who was singled out with the first barrel. The other barrel severely crippled a second, which settled in the water ten or fifteen rods away, and was followed by half a dozen that left the main flock. These stuck up their heads uneasily for a moment, giving Frank just enough time to replace his shells, when they flew back directly over again, giving another easy right and left shot. All four geese were retrieved, which, with thirteen mallards, made a heavy and very satisfactory afternoon's bag. It is quite different from marsh shooting, and I have never known decoys to be used with any success. Single duck, high flyers and long-range is the rule late in the season, except at the mallard holes or feeding grounds where the shooting is comparatively easy. The satisfaction derived from ducking is not so much in the making of large bags from easy-going flocks. In our day-dreams we revert to the occasional cutting down of the green-winged teal. He comes on us unawares, flying down wind; the gun comes to the shoulder involuntarily; there is no time for gauging; the first thing we realize is that the game rolls end over end, carried many yards by inertia. And here suppose we insert a problem: A teal, weighing one pound, is killed instantly, twenty-four feet from the water. He strikes forty feet (measured on the water) from a point perpendicular beneath where the shot struck him. How fast was he flying?

MERITABLE.

PIGEON MATCHES.

CONNECTICUT, West Meriden, Sept. 7.—A glass ball tournament took place on Sept. 7; six balls each; Bogardus rules.
Perry.....6 Tucker.....6
Cutting.....3 Haughton.....2
Broden.....3
Second sweep, two balls each.
Perry.....10 Tucker.....11
Broden.....9 Haughton.....7
Waterhouse.....4 Wilson.....4
Third sweep, twelve balls each.
Perry.....11 E. L. Post.....10
Tucker.....9 Broden.....8
Haughton.....7 Wilson.....6
Waterhouse.....6 Gaines.....6
Woodbridge.....4 Hudson.....4
Fourth sweep, class shooting, six balls each.

First Class.

Tucker.....6 Perry.....4
Broden.....5 Wilson.....3
Post.....4 Waterhouse.....3
Perry and Post divided third money.

Second Class.

Merrick.....1 0 1 1 1-5 Woodbridge.....1 0 0 1 0 1-3
Tayl.....1 0 0 1 1-4 Hudson.....1 1 1 0 0 0-3
Stevenson.....0 1 0 1 1-3 Skinner.....0 1 0 0 0-1
Emery.....0 1 0 1 0 1-3 Gaines.....1 0 0 1 0 1-3
Ties on three won by Woodbridge.

Fifth sweep, twelve balls each, first class.

E. L. Post.....12 Tucker.....8
Perry.....9 Wilson.....6
Broden.....8
Broden and Tucker divided third money.

Second class.—In this class Merrick and Emery tied on seven balls, and divided first money; Woodbridge and Haughton tied on six balls, and divided second money; third money divided.

Following the sweeps a race of fifteen balls each took place between Messrs. Tucker and Perry.
Tucker.....12 Perry.....10

The sport closed with a shoot between Messrs. Tucker and Gaines, the former 10 and the latter 11 out of 12. Great credit is due to Capt. Wilson for his management.

VON G.

WIBLES' HOTEL, ROCKAWAY BEACH, N. Y.—Pigeon shooting took place Sept. 11, Mr. King undertaking to kill 25 pigeons out of thirty, viz.: 15 double shots, two fly together, 18 yards rise, 30 yards boundary.

Score.—11 11 10 10 10 11 11 11 0 1 11 11 11.
Sweepstakes, single birds—1st, 2d and 3d prizes, 50, 30 and 20 per cent. Entrance money, \$2; 30 yards rise.

Table with columns for names and scores. Includes Mr. Hams, Henning, Vanweikin, Gildersleeve, King, Smelt, Gildersleeve, Woods, Hams, Vanweikin, Gildersleeve.

LONG ISLAND—Brooklyn Driving Park, Parkville, Sept. 13.—Monthly contest of the Kings County Shooting Club, champion gold badge, 10 birds each, 25 yards rise, 80 yards fall, 1 1/2 oz. shot, H and T traps; ties shot off with 3 birds each.
Charles Meyer, 14; J. M. Moller, 13; J. W. Miller, 8; W. Pickard, 7; John Meyer, 7; P. Miller, 6; John Moller, 6; J. W. Dick, 6; J. Jarger, 6; C. E. Francis, 6; C. G. Moller, 5; George Francis, 5; Cornelius Moller, 4.

NEW JERSEY—Mountain View, Sept. 18.—The Lafin & Rand Powder Co. Gun Club held their regular trap shot for the club medal and badge to-day as follows: Smith, 9; Boies, 8; Jo. McClelland, 6; Porter, 6; Ed. Hamilton, 5. Mr. H. J. Smith took the badge.
H. J. Smith, 9; A. H. Boies, 10; F. J. Porter, 8; A. Van Houten, 3; withdrew; G. Contant, 1, withdrew; F. Jones, 1, withdrew; P. Simkins, 1, withdrew. Mr. Boies was declared the victor, winning the medal for the second time.

MERIDEN Trotting Park, West Meriden, Sept. 1.—The second meeting of the trap shots of Connecticut took place to-day, a large delegation of shooters being present. The principal match of the day was for a beautiful cup, presented for competition by Simpson, Hall, Miller & Co., of Wallingford, Conn. The cup is silver and gold lined, 18 inches high. The base is of a diamond shape, on which stand two gilt figures of hunters clad in ancient costume. From the base arises a pillar, on which rests the bowl, the pillar being ornamented with wreaths rosettes, etc. Around the lower part of the bowl is a border chased in Grecian style, above which is engraved a picture of the celebrated setter, Dick, belonging to Mr. Jarvis.

For the the cup there were 18 entries; 25 balls each; Bogardus rules.
SUMMARY.
E. L. Post (Wallingford).....20 Capt. Wilson (Meriden).....14
Perry (Worcester, Mass.).....17 Morgan Pierson (Clinton).....15
J. Broden (Wallingford).....12 Taylor (Meriden).....14
G. A. Strong (Meriden).....14 Pease (Meriden).....5
Seymour (Meriden).....14 Thorpe (N. Haven).....5
Robt Penn (N. Haven).....15 L. Lewis (Rockville).....w
King (Meriden).....6 F. Stevenson (Meriden).....w
Phoenix (South Meriden).....8 Gaines (Meriden).....14
Foster (Meriden).....6 Bradford (Meriden).....1
The cup becomes the property of Mr. E. L. Post.
Next was a sweep at 10 balls each, \$5 entry.
Perry.....6 Post.....7
Broden.....6 Wilson.....6
Mr. Post taking the money.

Second Sweep—Ten balls each, \$1 entry.
Post.....7 Penn.....6
Broden.....5 Perry.....4
Wilson.....6
Mr. Post wins first.

Third Sweep—Ten balls, \$1 entry.
Post.....6 Broden.....7
Peirson.....4 Penn.....5
Thorpe.....4 Wilson.....2
Lewis.....4
Mr. Broden wins first.

Fourth Sweep—Ten balls each, \$1 entry, above rules.
Post.....5 Wilson.....7
Broden.....7 Peirson.....5
Penn.....6 Lewis.....4
Thorpe.....5
Broden and Wilson divided first; Penn, second; ties on third won by Post.

Fifth Sweep—Five balls.
F. Stevenson.....2 Taylor.....1
Lewis.....1
Sixth Sweep—Five balls.
Stevenson.....2 Lewis.....1
Taylor.....0
Seventh Sweep—Five balls.
Broden.....2 Peirson.....2
Stevenson.....2 Lewis.....0

VON G.

PENNSYLVANIA—Milford, Sept. 14.—A match at Bogardus' balls was shot on the 8th inst., on the banks of the Delaware near this place. Ten balls each, 18 yards rise.

WELL'S SIDE.

Table with columns for names and scores. Includes D. A. Wells, A. Eady, C. P. Mott, N. Revoyre, S. W. Drake, F. Quick, J. C. Westbrooke, J. J. Ryan, W. K. Ridgway, M. W. Van Auker.

QUICK'S SIDE.

KANSAS—Rosedale.—The Rosedale Sporting Club held its regular monthly match for the club medal Sept. 8th. The following is the score, 7 birds each:
T. D. Jones.....3 D. S. Mathias.....5
Ben Rees.....4 J. Hines.....3
J. H. White.....6 W. Bowen.....3
J. H. WHITE, Sec.

THE FOREST AND STREAM.—The following is just received from Galveston, TEXAS:

"Your paper must be complimented on as a first-class medium. In only one issue of my advertisement I have had twelve inquiries to purchase of me second-hand muzzle and breach-loading guns. Yours, truly,
JOS. LABADIE."

—For the small sum of twenty-five cents you can hire at almost any seaside resort a bathing-suit that will make the sad-eyed little fishes stand on their bald heads and weep.

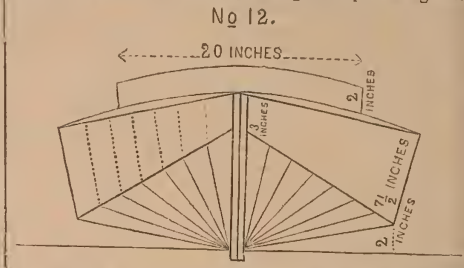
Dachting and Boating.

HIGH WATER FOR THE WEEK.

Table with columns for Date, Boston, New York, Charleston. Includes dates from Sept. 21 to Sept. 27.

BOATS AND YACHT-BUILDING. 5th Paper.

THE planking for bottom of boat may be cedar or pine, one-half inch thick. The planks on each side of the keel (technically called the "garboard strakes"), are the only ones that will give much trouble in fitting to place. The ends of planking will require to be steamed, ten minutes will be all sufficient. A steam-box is made by nailing four planks together



in the form of a box. The planks to be one and one-half inches thick, and as long as the articles to be steamed; one end of the box is permanently closed, and the joints all caulked steam tight. This box is placed on benches high enough to allow the boiler to be set under it. (The boiler is made by fastening a heavy wooden lid on the top of a strong iron kettle or pot, with iron clamps, and is connected to the box by a pipe or tube; a second opening is also made in the cover of boiler for the water supply. The mode of using is as follows: The boiler is filled half full of water, and a fire started under it; when the steam begins to rise freely place the boards or other articles in the steam-box and close the end with wet hay. To fit the planking on the boat the builder requires the use of a dozen or more iron screw-clamps, which may be had at any hardware store. For nailing on planking use copper or galvanized boat nails with countersunk heads. Copper nails are the best and most expensive; galvanized iron will answer, especially in fresh water. When a nail is driven into a rib or other light timber, the head of an ax, or a piece of heavy iron of any kind, should be held on the rib or timber opposite the point of the nail. The knees, where they project above the side boards, are cut off at an angle of forty-five degrees. Two strips of oak, one and one-quarter inches wide and one inch thick, are bent around the gunwale on the inside of the side boards; notches are cut in the rails to fit the tops of the knees, and the strips are nailed through the side boards. Knees are placed in the angles between the stern board and rails, and a knee between the ends of the rails at stem. The ends of rails at stem are tapered down to one-half an inch in width. An oak moulding, one-half inch wide, is nailed around the outside of gunwale as a finish, and a seat rail or "rising," one-half inch thick by two inches wide, is nailed on the knees at the proper height for the seats to rest on. The seats are fastened to the sides of boat by small knees.

A "SHIP-JAOK" CANOE.

Side boards fourteen feet long, seven and one-half inches wide at middle, and three inches wide at ends; mould board twenty-nine inches long, beveled three inches to a foot; keel one inch thick and two inches wide. The stems are cut to correspond with the size of keel. If a light boat is wanted, make the side boards and bottom of boat of cedar, one-fourth of an inch thick, with ribs one-fourth of an inch thick and three-eighths of an inch wide. Place the ribs four inches apart. If a stronger boat is desired, use planking three-eighths of an inch thick, ribs three-eighths of an inch thick and one-half inch wide, placed six inches apart. When using light ribs and planking it may be necessary to use several mould boards to keep everything in shape. Rail or gunwale three-fourths of an inch thick and one inch wide. Deck beams should be of pine, one-half inch thick, one inch wide at the ends, and two inches wide at middle. The ends of deck beams are notched into the gunwale in such a manner that the top of deck beams are flush with the upper side of gunwale. The ends of deck beams are fastened to the side boards with knees. The "rise" of deck may be two or three inches. The opening for cockpit is left four feet eight inches long, and about twenty inches wide. Deck planks one-fourth inch thick, cedar or pine. Combing around cockpit rises two inches above deck. The deck may be covered with canvas or not. If to be covered with canvas it is first given a heavy coat of lead paint. Heavy, unbleached muslin is a better covering than canvas. Stretch it over the deck before the paint is dry, and nail with small tacks three-fourths of an inch apart. A small, half-round moulding around gunwale keeps the tack heads and protects the edge of boat. A small con-





A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INFLUENCE OF MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.

(POST OFFICE BOX 2332.)

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, SEPTEMBER 20, 1877.

To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS,  
Business Manager.

S. H. TURRILL, Chicago,  
Western Manager.

THE RIFLE MATCH.

"PEACE hath her victories no less renowned than war," says old John Milton, and certainly the success of the American riflemen against the chosen experts of the world during the past week completely fills the bill as a victory of peace. It is a triumph, too, which brings no pang and no bitterness to the vanquished. They love that thrill of exultation, that joy of superiority which it is the luck of the American riflemen at this time to enjoy, but in chronielling and appending this great victory, Americans and fair-minded men generally will not omit to recognize fully and freely the rare quality of excellence and manly bearing of the defeated team. Before the battle, in the modest way in which they spoke of their own abilities during the struggle, in the all-absorbing manner in which they entered into the task before them, and in the moment of their final overthrow, when they were the first, in the person of that model gentleman sportsman who has so efficiently filled the post of team captain, to frankly acknowledge before the assembled people, "We are defeated, and I congratulate you upon the magnificent team you brought into the field." The British riflemen were not beaten because of their weakness. They were not an inferior team, else they could not have climbed to the proud distinction of surpassing all previous record. In nothing of experience or honorable effort were they inferior to our own men, and our numerical lead is but the formulation of certain recognized advantages we possess, and which the British riflemen fail to grasp. The victory is a noble one, in its inception, its preparation and its completion. Hard work and patient toil of body and hand, guided and governed by an intelligent grasp of points of advantage, have been crowned by their legitimate result in an overwhelmingly high score. It is somewhat gratifying to cast our minds back a few years to the months preceding the first Irish-American match of 1874. How our prominent rifle companies, without a single long-range weapon in their stock, sent in all haste to England for specimens of the best English and Irish match rifles. They were brought over, and with them, as a base of operation, our American companies set at work to bring out the magnificent arms of which the world to-day can show no superiors, and this merit on the part of the American breech-loading small-

bore rifle to acknowledge in the purchases which the foreign team men are making of the line of "Old Reliables."

But with such magnificent opponents, men of such varied experience, of thoroughly ripe judgment on matters of rifle shooting minute, and by record of work, by preliminary care and by present form should be ranked with the first, how comes it that they suffer so emphatic a defeat as that of the 13th and 14th, when they were left ninety-two points in the rear. There is, of course, some allowance to be made for the Americans in that they were fighting on familiar ground; but too much must not be placed upon that, as the conditions must have been most favorable to the British team to enable them to foot up a score surpassing all previous match records on any range. One percentage of preponderance represents, rather than anything else, our advantage in weapons, in position, and also in that organization, discipline and harmony without which no team, no matter what the task set it, can be successful in its endeavors. Not even the smooth-working, mutually helpful, and compactly organized band of six riflemen who so well and manfully upheld the interests and glories of American marksmanship on the Dollymount sand-bar two years ago, showed better working form than did the team of eight men, under Gen. Dakin, during the battle just passed. There were losses through individual omissions or commissions. Bruce fixed his wind-gauge on the wrong side, and got the only outer of the match for his party. Four misses are recorded "droppers," every one of them, and in this connection the rifle companies are to be congratulated upon the elimination of those "unaccountables" which up to this time have been the thorns in the side of the American riflemen. They are gone, and our experts need no longer fear that their best efforts will be checked or set at naught by the weakness of their chosen weapons.

The story of the match, the tale of the conflict is recited at length in our news columns. It is well worth a careful reading, and through the figures the careful reader should see the motives, incitements and obstacles which filled the path of the experts at the firing points. The days were exceptionally favorable ones for high scores, but it required in addition men of exceptional judgment and ability to secure the phenomenal totals found in the figure record. There were some misgivings expressed in certain quarters before the match as to whether our representatives could be depended upon to uphold the credit of American marksmanship against the world and particularly against the formidable challengers we have had the honor of defeating. It is especially gratifying to note that these doubts have proved groundless; that the principle of "natural selection" has given us a triumph hitherto unparalleled in the annals of rifle shooting. For the first time, we believe, a programme of team selection has been carried through from announcement to its consummation in victory without tinkering or altering, not that we are yet willing to admit that a proper discretionary power should not be reserved in conservative, trustworthy hands. To Bruce and Blydenburgh sufficient honor cannot be awarded. Their success shows that there is no monopoly of honor at rifle shooting, as there is no royal road to proficiency. Any young man willing to keep himself in that perfect form of nerve, skill and pluck may gain similar triumphs in this healthful and fascinating sport.

Some see in these repeated—we can hardly call them monotonous—victories of the Americans a repressive influence which will leave us soon without ere a competitor; but this view of the case is not borne out by any direct or implied admission of the foreign riflemen. The Scots will come again. Austria has bespoken a future engagement, and certain it is that our British visitors, with their famous record of perseverance and pluck, will be moved by this first repulse to try again. Gen. Dakin, in his speech at the end of the match, gave them a neat little thrust in hoping that they would bring a team able to beat the record of the Americans, that the home squad might be forced to win its way into the slight margin left below perfection.

There are many phases of the past match which deserve comment and special chronicle, and from the study of which valuable lessons may be drawn. The methods of gaining victory pursued by our team are known and open. We place no selfish, restrictive patent upon these things; our hope is rather that our fraternal competitors may avail themselves of any advantage known to us, until the contest between us shall be narrowed down to one of sheer personal skill, and in the opening vista of the future let us hope to see many more of these peaceful invasions and good-natured conflicts, and that, no matter whence it may come, the best team may always win, and its defeated competitor be the first to acclaim its honorable victory.

STRAY NOTES FROM THE EDITOR.

BAYFIELD, Wis., Sept. 6, 1877.

I AM just off for Duluth by the Atlantic. I am kept moving so fast that I can scarcely snatch time to drop even a flying note. I have had a most enjoyable trip here and at Ashland, closing the trouting season in proper form by taking from the fantastic roads that border Lake Superior some beautiful trout with fly, a performance that Eugene Prince declares has never been witnessed before at this season of the year. Friend Pratt's Chequamegon House is constantly filled with guests, and so is the Island House at Bayfield. Sam Efield, X. M. C., is the tutelar saint of this region, and when you get into Northern Michigan you are in his dominion. From Steven's Point, north, the Wisconsin Central Railroad runs

through the tangle-est wilderness I ever saw, and if any one wants bear or deer in quantity he can drop off at any station beyond Phillips. At Butternut Creek, Messrs. Cook and Campbell of the Chicago and Northwestern Railroad had a private car, and were catching 30-pound maskelongs by the dozen; they had ladies with them, and were comfortable. When once you emerge from the wilderness into the delectable land on the shores of Lake Superior, you realize the entire fulfillment of your dreams. It is a beautiful and pious country, and there are twenty-two Apostles scattered all around. As you arrive, through the glancing waters in Capt. Patriek's little steam yacht, island successes island so rapidly that the doctrine of the Apostolic succession becomes a fixed and inflexible fact, whatever may be said of the Duluth, which lies just beyond, and the aphorisms of Proctor Knott. By the way, Col. Hull, the proprietor of the Clark House at Duluth, has a pet owl named Tommy, which knows more about the price of lots all around Duluth than any other man, except the Colonel; only he keeps his own counsel, like a wise man, and doesn't tell all he knows.

I've just time to post this and "skin out."

ST. PAUL'S, Minn., Sep. 12.

By courtesy of Northern Pacific, the St. Paul & Duluth and the Sioux City Railroads, I have been enabled to visit many of the chicken grounds in the State of Minnesota. The best shooting is beyond Brainerd on N. P., and all along the western line of the Sioux City R. R., where the birds are very abundant. Last week, Capt. Chas. A. Messiter and Fitz Mathew, late of the British Army, and well known to sportsmen on both sides of the Atlantic, bagged 400 birds in a few days' shooting. They went west on Sep. 10th via Northern Pacific R. R., to Fays & Bismarck, where there is good shooting all along the line. At Brainerd they joined the shooting party of Mr. Jerome Marble, of Worcester, who were fitted out with the business car of the company, and a special car for baggage and dogs. The Englishmen will return about Nov. 1st. The readers of FOREST AND STREAM may expect to hear from them betimes. These Minnesota Railroads appreciate the patronage of sportsmen, who are generally the pioneers of emigration and settlement, and cater for them to the best of their ability. They take good care of men and dogs, and charge reasonably for reasonable service. It is well worth the while of Eastern sportsmen to go West and spend the months of September and October. They will get enlarged ideas of sport, and find something still to learn. The pin-tails are in prime order now, and those who can spare the time had better set their feet on the prairie now. The distances seem nothing when you get used to them. Some time I shall have something to say of my chicken shoot with Tom Cantwell and Joe Hicks, of Brainerd, over the true blues, Yank and Sullivan, and the orange and white setter, Tasso. We set out at a spanking gait behind Col. Weed's splendid cross-match (black and white) team, streaked it over a hundred miles of prairie, and returned at 2:40 speed through a rain storm that filled up the creeks and sloughs and set things afloat generally. Joe Hicks says, "If that wasn't the wettest rain I ever saw, then my name is Wa-wa-walker."

HALLOCK.

MADEIRA, Minn., September 14.

Have just got in from the toughest day's shooting imaginable, with thirty-four chickens shot near here on the line of the Sioux City R. R.; thermometer 92° in the shade and a red hot gale blowing; all over the prairie birds are driving down wind and across field at 2:40 gait, all shot outside of twenty-five yards. Dogs suffering badly. Shot in company with "Doc" Warner, Superintendent American Express Co. here, and John Swainson, Esq., joint author with Richardson of the *Fennia Borealis*, a hale Swede of sixty years, whose legs never tire and whose ardor does not flag in hot or cold weather. Warner sent his dog-cart ahead on a platform car—and a most remarkable vehicle it is—carried men and dogs all under canvas; the dog house astern and separate from the rest of the wagon; refrigerator and camp kit amidships; water butt in front and storage room all over for miscellaneous traps; a large basket for the game. I have an idea that one of us will write up this trip.

BLAKELY, Sept. 14.

Dropped off here this morning, en route for St. Paul, and tried our hand on the ruffed grouse on the Minnesota River bottom and the ridges back of it. Bagged eight, and walked back to depot in the heaviest rain that has fallen here since June 28. This Sioux City railroad route runs through a famous bird country, which has only been hunted in places. I have seen the prairie fowl sitting on the barn yard fences, quite tame. Many of the sloughs are already filled with mallard ducks, and teal are beginning to arrive in quantity. The cool weather which shall follow this rain will bring them in. I shall reserve my duck shooting for my canoe trip down the Mississippi next Monday, when we expect also to get some woodcock, snipe, bass and maskelongs. It is delightful to the sportsman to travel over this road; he and his dogs are well taken care of. It is gratifying to me to be able to find out these choice hunting grounds in person. More anon. I am keeping the cream of my notes for future use.

HALLOCK.

—We are forced to devote the major portion of our columns to the great international contest. It being the event of the year, no apology seems necessary. Those who have no taste for rifle matches will certainly excuse, as the probabilities are that the like will not occur again for some years, and their own particular vanity often has to be catered to.

## The Rifle.



THE INTERNATIONAL MATCH.

Victory has again rested with the American marksmen, and for the second time the International Centennial Trophy is presented to the home team. Against what should be by all rules of logic the best team in the world, as comprising the selected champions from the three foremost rifle shooting countries of the earth, the American marksmen have shown themselves more than a match. The struggle of the 13th and 14th of September, 1877, is memorable in many respects. In it the sides were made up of the very best long-range marksmen at present known. Fine weather permitted the men to shoot up to the very top notch of their ability; and while the victors have run up the figures very far toward the marvelous, the score of the losing group is noteworthy as leaving all previous recorded scores very far in the shade. As an exhibition merely of what wonderful accuracy may be gained by intelligent, persistent drill in the use of a weapon, which in turn commands our admiration for itself and its makers, the match is an event of which too much notice cannot be taken, while as a competition our feelings of patriotic pride have been aroused and fully gratified. It was a noble victory; broadly conceived, ably conducted and magnificently consummated. Looked at from any standpoint, this battle before the butts at Creedmoor carries with it suggestive lessons, and points out lines of effort which we doubt not will be properly carried out. That a team of men, not one of whom five years ago would have been able to do other than the wildest sort of luck shooting at the long ranges, should meet and defeat a team of old and tried veterans, who for nearly four times that period have been working zealously in efforts looking to the improvement of the small-bore match-rifle, and necessarily of all classes of small-bore ordnance, demands an explanation. To say it is luck will not do. God helps those who help themselves, and if Fortune has seemed to incline most graciously to the stars and stripes, it is because our representatives have been most persistent workers of the coy damsel, and have carried on their advances through the channels of hard work and hard study. The difficulties which have been strewn through the path of the would-be long-range champions have been many and severe, but by one they have given way; have melted away before the combined zeal and fervor of shooters and gunmakers, all determined and united in the solution of the problem of how best to construct and operate a long-range rifle. It would seem when such scores as 219 in the possible 225 are made, some little allowance should be made for personal aberration, and the record be looked upon as closed; but it is not the spirit of the rifleman to let well enough alone, and now with such a score before him it is the ambition of many a long-range shooter to "go one better" and trench nearer still on perfection. But of the match: On both sides of the field the rival squads did their very best. There were no complimentary misses or toning down of the score, that their "friends, the enemy," might not be left so far in the distance, but in the preparation for the contest and in the precautions taken or insisted upon, neither of the teams bated a single jot or tittle. Everything which might lead to success was secured, and, conversely, nothing which might help in the slightest degree to get an increased score was omitted.

Had the men been shooting for their very lives they could not have fought a more gallant and careful battle, or made a more determined resistance. The result was not a surprise. We have pointed out, not recently, but years since, wherein the American riflemen had grasped the secret of success in several points—in their team system, in the discarding of the old deer-stalking position for either of the many varieties of the back posture; in the rifles, possessing as they do all the merits of the muzzle-loading system with the additional advantage of the open-breech action, and in the disregard of all precedent of old standard scores by which the capacity of a rifleman or the capabilities of his rifle were gauged. With the American shooters nothing short of the highest

possible attainments was thought satisfactory. The American riflemen, in the first few years of the movement in this country, deserve full credit for the sacrificing spirit in which they have performed an enormous amount of drudgery, and in a labor of love have upheld the American honor and name in critical moments. Mug-hunting has been almost unknown on our ranges. Emulation runs high, and goals the most backward to at least some study and effort, but the bulk of the shooting is for honor alone. The California team, within a few days past at Creedmoor, have enjoyed no personal gain from their visit. The Crescent City experts have visited this national range after months of patient drill, simply to enjoy the honor and satisfaction of victory should it fall to their lot, or in their defeat to cheer their superiors. Among the British marksmen, though the amount of general effort among the masses of the English people in the way of rifle practice is incomparably greater than in this country, the practice is carried on in an independent sort of way, and when a marksman at the longer ranges has reached a certain easy average he contents himself with believing that he is an expert rifleman, and rests on his record. The rifleman is never lost in his team, and the merit of united effort to which personality is merged in the struggle of the squad never seems to have been accepted as a part of the English rifle shooter's code. He does his best, but does not—because he has never learned to do so—give a really helping hand to his brother-in-arms. He may try to do so—may give advice and proffer assistance—but without understanding precisely what sort and degree of assistance is needed. It is more than likely his off-hand judgment to "put on a bit more wind," or "come down a point in elevation," may do more harm than good. This difference of method, of material and of metal explains the gap which exists between the home and foreign teams. Until the visiting riflemen recognize some of these points, to which their defeats may be so clearly traced, they will go on butting their heads and misdirecting their efforts against the solid front which the American compactly organized teams can present. A "fluke" may throw a match into the hands of a "duller" team, or a bit of carelessness may put a really strong team into a nominal position as vanquished; but with the two teams shooting at the very top of their bent the Americans must win, simply because they do not omit certain precautions which are helpful to success. The match proves this, though it is not impossible that in the ups and downs of various matches, a slip, to which all are liable, or bad luck, that indefinite something which is so convenient in explaining, may bring an acknowledged inferior team to the lead. It will still be undeniable, in view of their performance in this and other matches, that the Americans possess a knack at rifle shooting which all may acquire if they but pursue the same mode of obtaining it.

In return for their care in preparation, for the time and effort and study they have put forth in training for this great battle of the butts, the American marksmen have the satisfaction of knowing that they stand to-day champion riflemen of the world, with the champion score, representing a real and not a mere nominal victory. They have not only beaten their immediate antagonists, but they have surpassed the record and put a white stone in the history of modern rifle practice. They have met the English small-bore expert at his own favorite game, and have "gone a great many better." They have furnished a high measuring notch for the riflemen of the future to gauge their efforts by. They have decided by the most emphatic of demonstrations that American breech-loaders are capable of the very finest class of work, and that were the riflemen perfect in judgment and in holding, the rifle would meet all his demands in the way of scores. The riflemen have furnished a subject for talk, and have drawn the attention of the public to a sport at once healthful, pleasant and untouched by any debasing or annoying surroundings or tendencies. The victory has been gained by fair, open shooting. There was no trick, not a single accidental advantage to help the Americans to the place of honor. It was sheer hard work, close watching and system which enabled the comparatively new made, though terribly earnest, American marksmen to gain the fight against the more experienced shooters from the British Isles. To those who paid Creedmoor a visit during the struggle was given an opportunity of witnessing the greatest rifle match yet fought. It did not possess the nip-and-tuck interest which a fight waging now this way and now the other would have, but in the magnificent manner in which the one squad forged ahead the contest was of intense interest. The eager way in which the crowd, or a portion of it, would watch a bulletin board and speculate on the chances of this or that marksman adding to a string of perhaps a dozen bull's-eyes already his, showed that it was really a match against perfection; and a centre, excellent though the marksmanship might be which brought it, was looked upon with regret, while a miss rose to the dignity of a calamity. It was recognized as a match against the record, and every point was jealously watched for and scrupulously guarded. But the victory went where every competent and unbiased judge supposed it would go—to the team which, in its make up and its methods, followed the rules which should, *a priori*, lead to the most satisfactory results. And there was no disappointment. Free to accept anything which promised to lift them a single point in the group for high scores, the American riflemen and riflemen have tried many devices, many twists and turns and little odd expedients which promised to help them on, and from the mass of experiments have settled down gradually to a mode of procedure which the more it is worked the more wonderful the recorded results become. Again and again the home team has measured its skill against the experts from abroad—and at their own ranges—and as the secret of their success was not applicable to one range alone, the Americans steadily held the first place. In the match of the past few days they have met and whipped the best team which the world, outside of their own area of selection, can produce. Sir Henry Halford made no apologies for his team before the match, nor does he to-day. He said it was the best team he could call together, and freely acknowledged that in beating it the Americans would place themselves really and beyond dispute the champion riflemen of the world. The British fought hard, struggled with nerve and vigor, and showed many points of merit. But they were self-condemned to defeat, in that they had failed to accept certain fixed and definite rules which govern the American team selection and practice, and which, to judge from the results, most certainly possess merit. Matches may be won or lost by a "fluke," but no such accidents operated in the match of this week. There were accidents; a few unaccountable misses were placed upon the score; but in fully 99 per cent. of the failures to find the bull's-eye the omission can be distinctly traced to some error of judgment, some change of wind or some material cause and reason. The majority of ninety-two points merely indicated the amount of intelligent extra care which the one team had taken and the other team had omitted.

## THE FIRST DAY.

The morning of the 13th opened upon a busy range. By daybreak the dwellers in the tents at Creedmoor were up and stirring. The sky and its appearance were most earnestly discussed, and many were the surmises ventured upon the nature of the day. During the early morning hours a heavy fog rested over the range. But the preparations went on. Rain or shine the match was to come off. Once the day is fixed nothing short of a downright pour can compel an adjournment of the work. By 8 o'clock the crowds began to fill the range. The trains from Hunter's Point went down with full loads. The team men of the American party, arrived at the range ground by 9:30, and soon after the British team men came down the line from their Garden City rendezvous. The general public, too, came in liberal numbers. High and low alike were there, from the laboring man to the man of abundant leisure and wealth, who had allowed his patriotic feelings to carry him to an investment of thousands on the event. Ladies were present in large numbers, and they certainly displayed a great amount of persistency and pluck in sitting through the heat of the day watching the uprising and down-going of the marking-disks, and with pencil and memorandum pad keeping tally of the progress of the match. The range looked as gay as a great ninety-acre lot, as flat as a billiard table, and with nothing more picturesque about it than rows and groups of tents, gayly decorated with bunting and streamers, could look. But while the ordinary spectator was taken by the general outwardness of things, the shooters and those posted on the ins and outs of rifle practice watched the wind, or, not to be so keen-sighted, watched the flags as they flapped lazily from their poles, and guessed as best they could of the probable vagaries. "The fickle element might choose to play during the day." "As the wind goes, so goes the match," was acknowledged by friend and foe alike. A fish-tailer was the burden of the Americans' prayer, not that they particularly loved the bother of a wiggling, cross-centre wind of that sort, but they knew such a breeze would perplex the foreigners the more and increase their own chances of success. Another cruel wish was for a day of good, fervent heat. Under such a visitation they knew the Irishmen and Englishmen would wilt, and a shooter who feels thoroughly used up by the weather surroundings can do little in the effort of a rifle match.

The day, in a rifle-shooting sense, was nearly perfect. It was hot, terribly so, for the champions confined to their work on the great sun-burned lawn of Creedmoor, but the wind did not try to do its worst, and the light, while glistening, was bright enough to give a clear view of the target. Under these conditions, and with the tremendous spur of patriotism and emulation under which the two teams fought, it is not at all surprising that the day's record shows a score which has never yet been equalled on any range, or in any match, or practice or general competition.

Captain Sir Henry Halford, of the British team, announced that Colonel Chas. Lennox Peel would act as his referee, while on the American side this honor was confided to Colonel H. A. Gildersleeve. These gentlemen met, and, tossing for places, the flip was won by Colonel Gildersleeve, with the understanding that the American targets of the first day should be the British ones on the following, and *vice versa*.

Four targets were in position toward the centre of the grounds, in two groups of a pair each. K and W were the designations, starting out in white emphasis from the butts over one pair of slabs, while with a blank target inter X and I were the names of the other targets. Colonel Gildersleeve chose the first-named group to the left, and when it was remembered what slight wind there was came from the 9 o'clock quarter, the very proper policy of giving the enemy your smoke was carefully followed by the shrewd American referee. Colonel Peel and Gildersleeve also decided upon an umpire, and this post of dignity, but little work, was offered to and accepted by General Joseph K. Hawley, ex-President of the Centennial Commission, and himself a thorough rifeman.

The targets once assigned, the riflemen and their aids busied themselves shaking down into working order, and it certainly is no small degree of good tacking to get the telescopes, miniature targets, scorers' post, coaches' position, and the teams so grouped about the firing point that no one shall be more than is necessary in the way of others, and none shall be cut off in view either from the teams or the targets. The shooters must sit as near as possible to the firing rug or spot where they drop to twist up for the shot, and must also have plenty of room in which to wield their cleaning rods, lay out their ammunition cases, and not find themselves at all crowded by inquisitive onlookers or by each other. The spotters must have their miniature targets plainly in view of all the team men, that no craning of necks or undue twisting of bodies should be necessary in seeing the graphic record of their doings. The official scorer must see the shooter and the result of his effort, that the work may be properly noted down. Then there are the coaches, old tried riflemen, who sit where they can see all and offer now and then a little word of advice. By watching the flags, vane, smoke and other indications of change of wind, the coaches are often of value in giving an early report of some new twist or sudden quirk of a fraction of a point. The coach must be one who can

## Distinguish and divide

A pair TWIXT SOUTH and SOUTHWEST side—

and a good dead closer, too, to be of any service to a squad of riflemen, to whom the merest touch of a gust means a slip off the bull's-eye.

At target K on the American side, Dakin, Jackson, Hyde and Allen were stationed; at target W, next to the right, Weber, Blydenburgh, Jewell and Bruce fired. Over on the British point the assignments were: Rigby, Ferguson, Collins and Millner to target X; and on target I, Sir Henry Halford, Lieut.-Col. Fenton, Humphry and G. Fenton. The privilege of stationary check-scorers at the opposing targets was taken, and Mr. V. K. Armitage on target K, and Captain Bowtyn on target W, represented the British interest, while Major Fulton on X and Colonel Hitchcock on I were the delegates from the American side. In the butts, too, it was necessary to secure perfect impartiality and accuracy in marking and have a responsible representative from each of the teams at each of the targets. On W, B. Doughty and C. G. Peterkin represented the home and foreign interests; on K, J. McClenney and A. M. Frase acted; on X, M. E. L. Wells, of Waverly, N. Y., and Sergeant W. H. Gilder, of the foreign party; while on I, Leon Backer, of the Twenty-second Regiment, and E. V. Thompson acted. Colonel E. H. Sanford acted as general superintendent of the butts, and from that end of the field good work was the rule. To secure ready communication with the men half a mile off in the sunken pits, a telephonic had been carried along, though very few were aware that the little box posted on a bit of board to the right of the range was really a mouth-piece and an ear-trumpet to the men in the butts. The official scorers were Sergeant Rankin, of the Twenty-third, at target X; Corporal Story, of the same regi-

ment, on I; Corporal Hedges and Corporal Parker, on W and K. Colonel Bodine, J. S. Conlin, R. C. Coleman, J. B. Steele and other reliable ones were on duty at the American points, while for the British team Lieutenant Adam, of Canada, P. S. Greenhill and Major Waller did the careful watching and spotting. General Hawley sat in a convenient central position watching and fanning.

At 10:45 the long boom of the cannon in the middle of the range warned the crowd away from the targets, as it called all to the firing-points, and the team men slowly unpacked their weapons, got out their ammunition, disposed of cleaning-rods or ram rods, and waited for the 11 o'clock gun. Meanwhile the two captains met between the firing-points, with Judge Stanton, who, after a hearty good-morning, said: "Gentlemen and captains of the two teams, before entering upon this match it is proper that I should announce that it is to be contested on conditions the same as those originally put forward to the riflemen of the world in 1876 by our countrymen and the directors of the National Rifle Association. I only hope that the same courtesy and show of kindness which has existed since the arrival of the visitors on our shores will be continued during the match and after it, and during the whole time the representatives of Great Britain remain in this country. I close now by announcing the match formally opened, and may the best man win."

With this benediction in advance, the two team captains took a cordial grasp and shake of the hand, and, as Sir Henry said, "I certainly hope and trust he will," the captains stepped each to his own place in the firing squads determined to show the world which of them was the "better man." The 11 o'clock cannon had sounded, and now all was tip-toe excitement to see who should be the opening marksman. The wind had dropped to 8, and then to 7 and was veering on the ticklish 6 o'clock point, which it soon after reached. For a long time, or what seemed such in the suspense, the team men raised no end of noise by firing charges into the ground, but the wait was not really so long, for at 11:15 the American team captain led off on K, with a centre, and the red disk was the first to slip up. The target had been found, and the experience of this opening shot enabled Jackson, who fired next, to receive a beautiful cartou bullet's-eye. Hyde, using a gun of another make, opened independently with a centre. Meanwhile Weber, on W, was in with a centre, while the first shot on the British wing, fired by Rigby at target X, brought up a good bull's-eye disk.

The game was now fairly on, the ball had been started, and it required a sharp eye to keep accurate and prompt record of the story which the disk told. At 11:45 all thought of a rainy day was dissipated by the bursting out of the sun, and for the remainder of the day no one compelled to grin and bear it on the open lawn failed to heap maledictions on Old Sol. The wind went round to a direct south, to a plump 6 o'clock breeze on the dial, and now the task lay in watching it sharply lest in firing the marksman should find himself using for a "right" wind, when really the opposite should have been allowed for. By 12:15 the wind had really touched the 5 o'clock point, and for a moment or two it rested on the 4 o'clock point. But on the whole the wind was lenient. Two or possibly three points was the extreme area covered by the marksman on their wind-gauges, though with such rear wind much of the allowance was provided for on the rear verger sights. The crowd increased every moment, and was very orderly and quiet considering the most urgent inclination it had to cheer every good shot made. American and British teams were alike watched, the crowd dividing its sympathies very evenly.

Under the excellent supervision of Captain Price, of the Seventh Regiment, little time was lost in recording, shot for shot, on a huge blackboard the scores of the marksman. It was very evident before a half dozen shots had been fired that the score was to be a fine one. Rigby, who fired with most deliberate precision, poured in ten bullet's eyes before he slipped off into a high inner, all his shooting suwed a tendency to go high. The other British openings were rather straggling, and Humphrys actually began a match for his side with a clean miss, under the target, but near enough to call out the experts to take a look at the target-face to assure themselves that a fair, square miss was really on the British record. In the first round, out of the possible 40, each of the teams secured 23 points. By the fourth round the Americans had shaken themselves into form, and then a brilliant run of nearly forty bullet's eyes consecutively kept the white disk blinking with wonderful regularity over the face of the black bullet's-eyes of targets K and W. The running record will show how four rounds of perfect scores were made each time. At 12:35, with the wind at 5, the Americans closed their 800 yards work on a score of 568 points—big enough to satisfy any one but a stickler after infallibility, and as the team men stepped away to the quiet of General Dakin's tent for rest and luncheon they left the British men some rounds behind. The visitors shot slowly, too much so for their own good, Wm. Rigby at times wasting as much as fifteen minutes in a single shot. But they were pulling up, and the last few rounds at 800 yards were as good as any reasonable team captain could desire. Barring Humphrys's miss the whole sixteen men had reached high figures. Seventy-four by Blydenburgh was the best, but there was a crowd close at his heels, and the single work of Geo. Fenton was the only evidence of the least rash work by the shooters. Either of the totals reached by the teams was creditable on any range, but in the degrees of credit the Americans had the advantage by ten points. At the ninth round the home team had a lead of eighteen points, but the Britons crept up toward the close and left lead enough to feel proud over, though not enough to feel any great confidence about.

Then came the rush for luncheon, and while it was evident that nothing that could help to add to the comfort and facilities of the teams had been left undone by General Woodward and his associates, the British team finding a neat luncheon awaiting them in their tent, it seemed equally true that nothing that could increase the discomfort and annoyance to the great throngs of visitors had been omitted by those who conveyed the crowd to the range and undertook to feed it and otherwise care for it while there.

But by 1:15, when the gun sounded the recall to business the crowd came back hungry or otherwise, as luck in the grab game of lunch finding had been, and the 900 yards range was begun. A leading round of thirty-six for the British against thirty-two for the Americans took somewhat from the old lead. Dakin was leading on his squad, and through trepidation or otherwise, was not doing over well. But seven bullet's-eyes in fifteen shots was rather wild for so steady an old war-horse. Hyde dropped into a lucky streak, and Weber, despite the fact that he was a more fit subject for a sick chamber than for a hard-fought rifle field, was away up with seventy-three points, though to Bruce belongs the honor of this range, with the best score on the field. On the British flank of the battle-ground things were not brightening up. Ferguson, the careful little Scot, actually made an outer on the left wing of the

target, which Colonel Fenton balanced with one on the right wing. But the most provoking mishap to the British team during the day was when Sir Henry Halford forgot to drop a bullet in his rifle before he shot, in the middle of his 900 yards score. Sir Henry had already shot six times, making a bull's-eye each time. He had been cool and collected all day, and had done excellent work at both the 800 and 900 yard ranges. He lay down to make the seventh shot, and as the piece went off he threw up his arms slightly and said, in the quiet undertone which is always maintained during the firing, "Oh! dear, I didn't have a ball in it," and some inveterate punster in the crowd said, "The bullet out will spoil the bulletin." The rash man was summarily ejected from the grounds. All knew by the report of the rifle that it had contained only a blank charge. No one else spoke a word, and Sir Henry kept perfect silence after his first ejaculation, and tried to dissemble his vexation. Any one who looked at him closely, however, saw that his brow was firmly knitted with self-provocation. It came his turn to shoot again, and every one looked anxiously for the result. He had a ball in it that time "for sure," but, instead of following its six predecessors into the bull's-eye it hit far up in the left centre of the target, counting only three. The accident seemed to affect others as well as Sir Henry, as several very poor shots followed. But as others got a little nervous, the cool and solemn Humphry seem to get more calm and determined. He poured ball after ball straight into the middle of the target, barely making a single failure after the accident. After his tenth shot, which was a poor one, Sir Henry took out his short pipe and sat down for a smoke. This seemed to help him to regain his equilibrium, and his last three shots in that bout went straight to the bull's-eye. The lead of ten which the Americans had gained was not wiped away, but instead another ten was added to it. At the twenty-eighth round the red, white and blue champions were twenty-three points ahead, but with their usual early-closing habits the Americans left the other team free to fire the last few shots of their 900 yards stage alone, and as before, they crept up and reduced the margin by a few points. This may be seen by a further reference to the running record.

Twenty points to wipe away ere they could hope for victory was a high task, but it was one the Britishers essayed as they fell back to 1,000 yards. It did not take long for the workmen to bring back tents, camp-stools, ropes, benches, telescopes, etc., after a dozen horsemen of the Washington Grey Troop, under Lieutenant Decker, had assisted the police in driving the mob to the right about face for a distance of 300 feet. The opening at the longest range was most carefully made. It was getting late—after 4 o'clock—and the Americans, at any rate, understood the importance of getting through before the cooling air of evening compelled a change of elevation to guard against high shots. The crowd, gaining as train after train left its load, was extended in a black fringe down either side of the firing points, and far away toward the targets. From the first the firing points were kept clear of loafers and loungers, and those whom the police passed could not hope to escape the sharp eyes and strong arm of Major Yale, special guardian of the American team. The crowd, however, was growing demonstrative, especially a number of foreign-born citizens at the rear of the British point, who thought proper to honor Sir Henry Halford, or "Sir Harry," as they proudly dubbed him, as he forged ahead through a very fine score. But the British shooters, as a rule, were not doing over well, though not by any means poorly. Humphry was in poor luck. Two straight misses were in his score at this distance; but the capping piece of misfortune was in the second shot of Milner. An excellent one it was—a plump bull—but on the wrong target, and it formed a fitting companion-piece to Sir Henry Halford's no-bullet shot. Milner had taken aim for his shot, but got up to wait for a little gust of wind to pass over. On going down again he pointed at the target on the right, and planted a ball almost in its centre. Instead of allowing the mistake to vex him, he came to time in the next round and renewed his score of bullet's-eyes on the right target. These two mishaps doubtless put the British team back ten points, and perhaps more, and worse still, while all this was going on, the Britishers could not but see that the Americans were doing splendid work from the rapidity with which the two great white disks at their targets rose up as the balls followed one another into the bull's-eyes. It frequently happened that two shots at the same instant resulted in sending up these two white disks together, and at such times the crowd cheered their countrymen.

Not a single outer was recorded on the British target at this range, but the three misses helped most materially to pull their score down. In place of the lead they had hoped to find at the extreme range the visitors only found themselves further behind. The Americans were pulling well together. Bruce opened with an outer, and if he would only confess it, a little unsteady holding in the "pull-off" would explain it. The team worked harder at this range than at either of the others. The slant light from the setting sun came from the rear right; the air was growing endurable to the crowd of humanity, but to the tender rifle-barrel a drop from ninety to seventy degrees in temperature meant different shooting. There were no perfect rounds here. Hyde, right in the middle of a brilliant run of bullet's eyes, landed a miss—a drop it was—into the dirt far in front of the target, evidently from a short-filled cartridge, and on the eleventh shot Jackson got down so low as to get an angle iron shot—that is, hitting the iron-bound sill upon which the heavy target rests. This miss followed after an unsteady shot by Dakin, at which he got a high inner. He counseled Jackson to come down in elevation, which he did, and got a miss. Going back to his old elevation when he next shot, Jackson found the bull's-eye, proving that his leader had misguided him. These, with the outer of Bruce, were the only losses at this range. Blydenburgh and Jewell were making big strides for first place, the former ranking first with his seventy-two in the possible seventy-five. The Americans were finished some moments before the British shooters, and the total 1,655 was known over the field. A little rapid figuring showed that the English representatives could not possibly draw up abreast of them, but all remained to see what total they would reach. Sir Henry Halford must have been a bit flurried to get into an inner on his last shot, but the slow shooting of Rigby and his followers drew the match out to 6:20, and the evening shades were falling fast, and scores were correspondingly suffering.

The cheering was not very heavy at the finish, though the grand score of 1,655 for the Americans against 1,629 for the British would have justified a good share of applause as they stood out the best recorded match scores ever made. The crowd scattered homeward, and as they did so the popular verdict and the judgment of experts was that the first portion of the international rifle match was a complete and thorough success, looked at, that is, from an American standpoint. The members of the British team may not have shared in this opinion, but they certainly cannot complain of any lack of

opportunity to show their ability as riflemen. Never before in the history of firearms have eight men shooting together shown a record of marksmanship equal to that made by the American team. A score of 1,655 in a possible 1,800 is simply marvelous, and the closer an examination is carried into the scores the more remarkable becomes the performance to the appreciation of the non-shooting citizen.

The full scores of the day's work stood:

THE FIRST DAY'S SCORES.	
AMERICAN.	BRITISH.
C E Blydenburgh, Rem Creed, 545 555 565 555 555 574	J K Milner, Rigby Rifle, 534 555 565 555 555 56-73
545 555 565 545 535 55-74	632 455 455 555 555 56-70
555 545 455 455 555 55-73	605 555 555 555 545 54-67
Total.....213	Total.....209
H S Jewell, Rem Creed, 565 555 555 534 445 55-71	Wm Rigby, Rigby Rifle, 555 555 555 555 535 55-73
545 565 545 555 555 54-70	544 555 545 555 545 54-65
555 555 455 555 555 55-72	544 388 835 555 555 56-69
Total.....209	Total.....207
Frank Hyde, Sharp's Creed, 464 555 555 565 455 54 55-71	H S W Evans, McFerris Rifle, 535 555 555 555 545 55-71
444 555 555 555 555 55-70	655 445 534 555 555 55-70
455 555 555 555 555 56-74	555 533 354 555 555 54-66
Total.....209	Total.....207
Isaac L Allen, Rem Creed, 345 555 555 565 465 55 55-71	Wm Ferguson, Rigby Rifle, 555 445 555 455 555 55-73
474 445 555 555 555 55 54-69	544 555 555 455 555 54-67
543 555 555 545 545 44 55-69	555 555 555 455 455 54-67
Total.....206	Total.....206
L Weber, Sharps Creed, 345 555 555 555 555 54 55-71	Sir Henry Halford, McFerris, 555 445 555 555 555 45 55-71
555 554 455 555 555 55 55-73	555 555 555 555 555 55 55-70
353 544 555 555 545 55 53-64	555 555 555 555 545 53 53-71
Total.....206	Total.....206
L O Bruce, Sharps Creed, 345 555 555 545 555 54 55-71	Lieut. Geo. Fenton, Rigby, 344 462 554 445 555 55-65
554 555 555 545 555 55 55-73	455 455 544 455 555 55 55-70
263 544 555 455 544 385 4-63	545 455 555 544 455 55 55-69
Total.....206	Total.....204
W H Jackson, Rem Creed, 555 555 555 544 555 53 55-69	Lieut Col Fenton, McFerris, 555 445 555 445 555 55 55-71
435 555 555 545 455 55 55 55-69	445 555 544 455 544 44-63
555 545 555 555 455 54 55 54-68	545 534 445 455 555 54 55-65
Total.....204	Total.....198
T S Dakin, Rem Creed, 445 555 555 555 555 54 55-73	A P Humphry, McFerris, 035 555 433 535 555 55 55-60
344 544 555 544 555 55 55-63	355 555 565 555 544 55 55-70
544 544 444 455 535 55 55-66	455 544 455 455 555 55-60
Total.....202	Total.....193

THE SECOND DAY.

The 14th inst. repeated the story of the day previous. There were the teams at the firing points, toiling on, watching and working, using brain and body in a grand trial of combined head and hand work. There were the crowds and the hubbub, and the short rations and plentiful libations, the watching and the scurrying, and over all the same spitefully hot sun. But the day's effort was not misspent; neither of the teams would recall, if they could, the record of that day's work. The British might not care to have the result come as it did, but to shoot so well as to compel a total of 1,679 from the opposing team is high honor for any squad. The finish of the day's work on Thursday sharpened the anticipation of all for the struggle of Friday. The British were behind and had the prospect of a bad defeat before them, yet it was possible that victory might yet be theirs. They had a double motive for extra care and scrutiny in every detail, and certainly their actions showed that they were doing their best. The Americans, with their big record of the first day, saw the chance of doing something brilliant, and perhaps, too, urged on by the thought that the Englishmen were holding back a little to pull up on the last day, took every advantage which the day could afford. The day previous had been hot, and the second day was hotter by fully 10 degrees. Before 9 o'clock, at which hour the team men and the early visitors began to appear on the shooting ground, there was a midday heat, which made rapid walking an unthought-of venture, and the shelter of the tents and trees more than merely acceptable. The agreement of the previous morning between the referee, Colonels Gilderseve and Peel, that the targets should be exchanged from day to day, brought the British shooters to targets K and W on the left of the range, and the Americans to targets X and I. The scores were as on the day before, and in shooting, Dakin, Jackson, Hyde and Allen followed on target X, with Weber, Bruce, Blydenburgh and Jewell on I. Rigby, Milner, Ferguson and Evans filled target K, and Halford, Geo. Fenton, Col. Fenton and Humphry shot on target W. The order of firing on each target was that named above. Captain Robbins replaced Col. Sanford as officer in charge of the butts, and the assignments there were: J. McGlensy, American representative, and A. M. Fraser, British representative, at X; E. H. Lichfield and C. G. Peterkin on target I. On the British targets the butt delegates on target W were Captain Henrichs, of the Forti-seventh Brooklyn, and T. Vaughan Thompson; and on target K, Sergeant T. N. Brown, of the Twenty-third, and Sergeant W. H. Gilder of the British staff. The order on the range was of the same excellent character which has marked every day thus far of the fall meeting. The firing places were kept clear of the general mass of loungers and on-lookers, and in the actual firing party a quiet and order were maintained which had not been possible were the crowd at large permitted to jam itself into such positions as it might choose. At 10:45 o'clock the six-pounder brass field piece boomed out the make-ready warning, and before 11 o'clock the two teams were at their posts. The men were in good trim, Weber, the sick man, having under vigorous treatment on the previous evening almost thrown off his heavy headache and general infirmity for work. He came on the range smiling, and his score did not certainly give any indication of a serious interference of sickness. Dakin was not in good trim, and his day's work shows the only slip under 200 points by any member of the team during the two days' scoring. In the British wing of the field the usual grouping was seen. Lieut. Adam, of the Canadians, spotted and coached on one target, while R. S. Greenhill did the same for the other group. As the riflemen unpacked their rifles and looked sharply out upon the range to see the wind, they were met by as lazy and quiet a display of bunting as it was possible to have. On some of the poles the flags hugged them without the least attempt at a flurry, much less a wave. At the dial the pointer stood at 11 o'clock, and the gentle swaying of the vane kept the hand moving lazily about. There was wind enough to allow for, and that only. By 11:15 the men had concluded their ground blowing and warming up, and the business of the day was opened on target X in a centre by General Dakin, and in this he was followed by every member of the target squad, while on the

other American target every opener was a bull's-eye. On the British side, when they began shooting some time after with their usual slowness, six of the openers were bulls, but two inners by Col Fenton and Humphry brought the two rounds equal, and the teams still stood on their scores of the day before. The men on both flanks were shooting with the greatest care; and when, as it not unfrequently happened, three white disks were up along the line of targets, blotting out three bull's-eyes, a cheer greeted the happy coincidence. At the second round an additional point of lead was added to the score of the Americans, and at the next round three points. The home squad made a pair of perfect rounds of forty points each, while the Britishers made but one.

By 11:35 the wind had dropped down to 7 o'clock on the dial, and it was evident that the day was to be a duplicate of the one preceding. It differed, however, in the light. That peculiar glistening light which seemed to hold over the range during the first day was succeeded by an ordinary sun-glare, and the mirage from the surface of the range was very great. To lie down and look at the targets, as the riflemen did, close along the ground's surface, was to see a dancing bull's-eye and a generally shaken target, as the heat currents set upward. This peculiar appearance the majority of the spectators failed to catch, looking as they did over the range at a higher elevation. As the 800-yard stage progressed the wind edged around until it blew directly from the 6 o'clock point, and then the Americans watched it and kept in the centre, while the Britons did not do so as closely and suffered with inners. Of the shooting at this range its superb excellence may be judged in the fact that of the 120 shots fired by the American squad, all but one were within a four-foot six-inch circle. The British riflemen were not so fortunate, and allowed eight of their shots to wander out of the centre circle. The result was that the Americans gained a further lead of 16 points, and the gap on the aggregate widened from twenty-six points at the close of the first day, to forty-two points, and then the teams went off to lunch, or rather the American team had gone off to an easy rest at 12:30 p. m., leaving the wind at the 4 o'clock point. But it was not until 1:15 that the last Irish slow coach, as Rigby was called, had fired his last 800-yard shot. In fact, the slow marksmanship of Rigby was something out of the common, and on one shot by watch he consumed fourteen minutes between the firing of the preceding shot and the discharge of his own.

At 1:45 p. m., the gun sounded the assembly for the mid-range firing, and at 2 promptly the signal to recommence the fusillade was given. The shooting here was much more rapid, by the Americans, particularly, and at 3:10 the last shot from the right wing of the field was fired. The day previous 547 points had been the very excellent effort of the home team, but it finished yesterday on 554 in the possible 600. The majority of the shots were bull's-eyes, of course, but Jewell got a miss plump in the centre of his score, the bullet dropping about four inches below the centre of the target and entering the wooden sill. It was unaccountable, unless Major Jewell is willing to own up to a "pull off." Allen played with the feelings of the great crowd, which now filled the space back of the score black-boards, by getting up a run of twelve bull's-eyes, and then, when everybody expected to see the rarely a perfect 900 yards total, dropping to a nipping centre outside of Jewell's miss. Five inners were the total of the American failings from the true centre. On the British target things were getting rather down, Lieutenant Penton got two outers, actually surprising himself and his squad by wandering several inches off into the barren places of the outer darkness, and conjuring up the black disk. He kept up his reputation of never getting off the target in a match, but committed what some think the more egregious error of getting off beyond the inner lines. Eleven inners tell also the story of the poor shooting here. It was simply wild compared with the American work, but still most excellent. Milner wound up with a miss, a square, fair hit somewhere else than on the target. None upon the field were more surprised at the lapse than Milner himself, but he was too good a rifleman to rant about it. The markers came out, but failed to detect the bullet mark, and were compelled to do nothing and allow the miss to go on the record, and instead of the 71 he had a right to expect at this range Milner got but 66 points; 554 to 536 told the lead upon which the Americans were gathering. Eighteen points more secured a grand total of 60 in advance, and it was little wonder that the Britishers fell back in almost sudden determination to finish up the match at the 1,000 yards range. The Americans some time before had found time to retire to a few moments rest and coolness under a tent. Of course they were out at gun-fire, while the other team had barely time to fall back and recommence work without the resting spell. The crowd grown now among the tens of thousands was unanimously of opinion that the chances of a British victory were entirely gone, and this opinion of the non-shooting spectators was shared by the riflemen present.

The opening on target K by the extra-careful Rigby scored a ricochet miss. This was due to false coaching. The history of this target and of the British team during the 1,000 yards range was a tale of demoralization, and the visitors split, too, upon the same rock where the Scotch team wrecked its chances a year before. Relying upon a single scorer and spotter and coach combined, when that prop became shaky, the rallying-post of the squad was gone and they scattered into medium scores. Milner was getting flurried, and a miss was again credited to him. Fergusson on the same target followed suit in another miss. Halford also put in one of the unaccountable variety between bull's-eyes, and Humphry followed a bull's-eye with a miss in an unwarranted manner. The misses were not accidents, but were merely the result of having the loose team system, or rather no system at all, under which the squad shot. The moment they lost step, as it were, and began to scatter in their style, there were no means, no rule, no order by which they could be brought again into line and their confusion checked. Probably not a single member of the British team was sanguine enough to suppose that the match could be secured against such shooters as the Americans were showing themselves to be. The thing was possible, but most remotely probable. But even this feeling should not be used to explain so bad a drop as from a 1,000 yards total of 534 on the first day to 518 on the second, the Americans meantime gaining 10 points on their first day's record, and that, too, with an unaccountable miss on the part of General Dakin. The remainder of the team, however, shot most uniformly. Jewell fired the closing shot for the Americans at 5:36, adding another bull's-eye to the list, and at 5:45 the match was over with the closing bull of Evans' and with the totals of 3,354 against 3,243, the great match was over. "Ninety-two ahead" was shouted from end to end of the field as soon as the firing ceased. All barriers were broken down, and the two teams were surrounded by a frantic mob just outside the ropes and cheered to the echo. Judge Stanton,

President of the National Rifle Association, mounted a chair and formally announced the victory of the Americans, and proposed three cheers for the British team. These were given and repeated, and then Sir Henry Halford, in response to loud calls, took the Judge's place and said: "It is no disgrace for the British team to have been beaten. Such shooting has never before been known in the history of the world. If I were to say that I do not regret the result I would be telling a lie. I do regret it, and very bitterly, and I will strive another year to avenge our defeat. [Cheers.] I congratulate you on the team you have brought into the field against us, and I thank you heartily for this reception. [Cheers, and calls for Dakin.]"

Gen. Dakin, in response, spoke as follows: Gentlemen: I thank you for this expression of your good will toward me, but I never was a hand at speech-making, and it would be improper for me to detain you when so much remains to engage the two teams of handshaking and feasting in the President's quarters. I can only say that when we came into this contest we came in to win. [Cheers.] We knew we had to contend against the best metal the Old World could produce. [Cheers.] When Sir Henry Halford started from England he meant business. [Cheers.] The good and splendid result of the shooting of both teams is, as has been said, a subject of congratulation. Our competitors are to be congratulated on the scores they have made on these grounds. When they have come back to us again, however, we hope they will come a little stronger, so that we may have an inducement to strengthen ourselves. [Cheers and laughter.]

Calls were next made for Blydenburgh. He said: After the work of the past two days I have not much nerve left for speaking.

Bruce was the next speaker. He said that everybody knew he was not a speech-maker. He had done his speaking, and told his story at the target. [Laughter and applause.]

The two teams hurried over to the President's tent. When all were assembled Judge Stanton said: Sir Henry Halford and Gen. Dakin, captains of the respective teams who have been engaged during the past two days in the great international contest, I congratulate you both on its successful termination. We of the Rifle Association have endeavored from the first to conduct it so that at its conclusion each party would feel as though they had had fair play. I have been assured on behalf of the separate teams by their Captains, and especially by the British team, that they feel that such has been given them. Now, as we have but a very few moments to remain, I will be brief, and simply thank you for meeting here to take a social farewell and a glass of wine with us. [Applause.]

Sir Henry Halford here stepped forward and said: I can thoroughly indorse every word that has been said about the treatment of the teams and the conditions of the match. We, at any rate, most acknowledge that we have been beaten honestly and thoroughly. [Applause.] It is not singular that such should be the case, however, under the circumstances. We have been treated throughout with the greatest kindness, and every facility has been extended to us that lay in the power of the National Association to grant. [Applause.] I can only say that although we were beaten and we regret it, we will return home with feelings of enjoyment of our trip and our treatment. I, for one, will be happy to come back again to this country, and will ever be pleased to call those whom I have met here my friends. [Great applause.]

Gen. Dakin was the next speaker. He said: I am not a speech-maker, and will confine myself to a few words. I am quite in accord with all that has been said about the incidents of this year's match. I am satisfied, and I believe our late competitors are, that everything was conducted as it should be. I have yet to hear to hear the first word to the contrary. [Applause.] I may say that my rifle shooting in public is at an end, and that my appearance in matches is finished. [Cries of no, no.] In the future I will shoot only for my own amusement, and I wish that to be distinctly understood. I have been successful in my scores thus far, but to-day after seeing what our younger men can do, I think it about time to back out while I have a record left. [Laughter and applause.]

Three rousing cheers were then given for Sir Henry Halford and the British team. Col. Fenton called for three cheers for the American team, and the Englishmen responded with a will, and the party scattered. The team work was over, and until the experts shall once more be drawn up in fighting array the team men were lost in their several private personalities, ready for extra exertions when an 18-inch carton shall enable finer marksmanship to be properly appreciated.

THE SECOND DAYS' SCORE.

Table showing scores for American and British teams across various ranges (800, 900, 1000 yards) and individual shooters like L.C. Bruce, Sir Henry Halford, etc.

The combined scores of the team men for the two days at the several ranges runs as follows:

Table titled 'AMERICAN TEAM' and 'BRITISH TEAM' showing scores for 800 yds, 900 yds, 1,000 yds, and Total for various shooters.

Since the introduction of the present target with its round three feet bull's-eye, there have been six important matches fought between international teams of eight men per side. These were the Elcho Shield matches of 1874 to 1877 inclusive, and the competitions for the Centennial trophy, including that of the present week. This included in all a record of twenty-eight team scores by an expert a body of rifle shots as the world can produce. The matches were fought under various conditions of weather, with various arms, on the grounds of Creedmoor or Wimbledon. A glance down the columns of range totals presented will show that the American score of Friday was not only in the aggregate far above anything which has been heretofore accomplished the score of the same team on the day previous being the only one approaching it, but on the range totals as well the scores of the memorable September 14, outranked anything on record. The fact was, that having beaten everything on the books in their score of the day before, the American team set to work shooting against their own record. Nor can the British team complain if comparison be made with the work of previous shooters. The totals which the British team, under Sir Henry Halford, has shown at Creedmoor are in excess of anything on this champion list, excepting, of course, the American total of the same two days. The Scotch total of 1,586, which Colonel MacDonald felt so proud in the midst of his defeat last year, has been left far behind by the British score of last Thursday and Friday. At the ranges the totals of the Halford team on Thursday held place next to the Americans, while the score of 534 at 1,000 yards falls but a point behind the spurt score of the Irish at 1,000 yards on the closing day of the Centennial match last year.

Out of a possible 600 at each range, or an aggregate of 1,800, the figures show:

Table showing scores for Elcho 1874, 1875, 1876, Centennial Trophy 1876, and Elcho 1877, comparing American and British teams.

The scores, when analyzed, show that for the first time the Americans have won an important match without scoring the greatest number of misses. Against a total of four misses by the Americans, all low shots, the British record shows eleven. In outers, Bruce's opening shot at 1,000 yards on the first day is the only instance, while the opposing team show seven of these stragglers. In inners and centres the foreigners show a large majority, while in bull's-eyes the home team show an advantage of thirty-nine. Evans was the only one of the Britishers who got through his ninety shots without outer or miss, whereas three of the Americans were equally fortunate.

THE ANALYTICAL RECORD.

Table titled 'AMERICAN TEAM' and 'BRITISH TEAM' showing analytical records for individual shooters across different ranges.

The annexed running record, showing the standing of the teams at the end of each round, is interesting in showing that from the start the battle was an almost steady progression on

the part of the Americans. Certainly at each range finish a larger total lead is shown:

THE RUNNING RECORD.

Table with columns: Rounds, Highest possible, AMERICAN, BRITISH, Am'n lead, F'nsh lead. Rows 1-15 and 16-30.

Table with columns: Rounds, Highest possible, AMERICAN, BRITISH, Am'n lead, F'nsh lead. Rows 31-45 and 46-60.

Monday last found the long range men again at the range, busy in teams of four for the Inter-State long range trophy. Six teams entered for the trophy—two from New York State and one each from Massachusetts, Louisiana, New Jersey and District of Columbia.

In drawing for places the Walnut Hill team, from Boston, got target V4, on the extreme right; next them were the Parthians of Hudson. On the next, target V, were the Amateur team—Dakin, Weber, Jewell and Allen—clad in the sombre American team uniform.

ally loose scoring was the order on their target, though they were admirably watched by a flock of lady friends. The nip and tuck was now between the Amateur and Boston teams. Jackson of the recent American team was leading his men well, and but for the marked defection of the lowest man on the down-East team they would have made a good bid for first place.

THE AMATEUR RIFLE CLUB, NEW YORK. Isaac L. Allen, Rem Creed. 5 4 4 5 5 4 5 5 5 5 5 5 7-10

MASSACHUSETTS RIFLE ASSOCIATION. Jas Weinyss, Jr., Rem Creed. 4 2 5 5 5 5 4 5 5 5 5 4 5-68

PARTHIAN RIFLE CLUB, HUDSON, N. Y. Chas F Jones, Rem Creed. 4 3 2 3 5 5 5 5 5 5 4 5 2-45

CRESCENT CITY RIFLE CLUB. Dudley Selph, Rem Creed. 5 4 5 5 5 5 5 5 5 5 5 3 9-71

HACKENSACK RIFLE CLUB, NEW JERSEY. F H Sharps, Rem Creed. 5 5 5 3 5 5 4 5 5 5 5 5 4-69

COLUMBIA RIFLE CLUB, WASHINGTON, D. C. J O P Burnside, Rem Creed. 6 5 5 2 3 5 4 3 5 5 5 5 5-67

SUMMARY. Amateur Rifle Club, N. Y., 254; Massachusetts Rifle Association, 264; Parthian Rifle Club, Hudson, N. Y., 267

The meeting had a brilliant ending, with the Spirit of the Times' cash prize match on Tuesday last. On the list of the 78 competitors were the members of the recent International teams, British and American, with the reserves, a group of Canadians from the Toronto range, the members of the Hudson River, Massachusetts, Washington and Hackensack State teams, and the New Orleans riflemen.

The men were squadded by chance, six on a target, and the long line of fire was rigidly kept clear of all loungers and even from the waiting riflemen, and the rules drawn up with the intention of compelling each of the contestants to do his shooting unassisted by other shooters or by outsiders were carefully carried out. These conditions were peculiar to the contest, and were drawn up with special care to do away with coaching and show the power of the men as individual marksmen.

Willow Brook range training which Mr. Washburn has received.

All the team men were in the match, and a comparison of scores show that the British team men shooting, as individuals, beat the Americans, the scores standing:

Table with columns: BRITISH, AMERICAN. W Rigby, 204; Sir H Halford, 197; T S Dakin, 204; Lieut G Fenton, 197

Total, 1,557. The prize scores stood: N Washburn, 800; Wm Ferguson, 900; 1,000.

Table with columns: N Washburn, 800; Wm Ferguson, 900; 1,000. Scores for various ranges.

Table with columns: Wm Rigby, 900; 1,000. Scores for various ranges.

Table with columns: Wm Rigby, 900; 1,000. Scores for various ranges.

THE FALL MEETING AT CREEDMOOR.

Wednesday, the 12th, was an all-comers' day at Creedmoor, and in the progress of the fall meeting embraced many competitions, about which no small amount of preparation and talk had been spent. In the early forenoon the inter-State military match was contested, and the Californians came bravely to the front; and, as everybody except the other competing teams expected, walked away with the "Soldier of Marathon."

Table with columns: California Team—Springfield Rifle, Capt Broekhoff, 290-5; Lieut Robinson, 290-4; Sergt Le Breton, 290-5

Table with columns: Connecticut Team—Peabody-Martini Rifle, Nichols, 200; Folsom, 500; La Barnes, 500; Edmundstone, 500

New Jersey Team—Springfield Rifle.

Table listing names and scores for the New Jersey Team at Springfield Rifle, including McNeil, Wood, De Mot, Fond, Nolte, Gisser, and a total score of 411.

The champion's match was completed in the 600 and 1,000-yards stages, and Major Fulton shows himself an excellent "all round" riflemen, though the "outer" in his 1,000-yards score has an ugly look.

Table listing names and scores for Major H. Fulton, L. L. Allen, and Gen. T. S. Dakin, with scores ranging from 1,000 to 2,000.

Table listing names and scores for C. Blydenburgh, Sir H. Balfour, T. Lamb, Lt. Col. J. Penton, H. S. W. Evans, W. Hyde, L. C. Bruce, W. H. Jackson, S. A. Scott, Wm. Arms, E. A. Dugro, G. W. Davidson, Wm. Ferguson, W. H. Gilchrist, and G. L. Morse.

Late in the day the Wimbledon Cup contest was opened with a good line of entries. As the battle of 30 shots per man waged alone, first one then another of the men leading in the world, Mr. Dudley Selph of New Orleans, with a run of 137 in the possible 150.

Table listing names and scores for Dudley Selph, Wallace Gann, C. E. Rider, P. Hyde, F. G. Eyrich, J. Bodine, J. Glyn, F. Lamb, E. H. Sanford, B. T. Manning, and W. M. Farrow.

The work of Thursday and Friday, in the great International Match, is told elsewhere in our columns, and on Saturday the short-range team match was completed. In this match twenty teams were entered, but the three prizes offered went "down East" to the first to the Walnut Hill champions, the scores standing:

Table listing scores for Massachusetts Rifle Association, including G. L. Winship, N. W. Arnold, and H. T. Rockwell.

Table listing scores for Company E, Second Connecticut, including G. R. Nichols, E. A. Folsom, and James Timkey.

Table listing scores for Amateur Rifle Club of Stamford, Conn., including E. H. Sanford, W. H. Sanford, P. M. Richards, and various other clubs like Hatway Rifle Club, Remington Club, etc.

In the evening the riflemen gathered at the State Arsenal to assist in the distribution of the prizes. After the bestowal of the regimental team prizes, Sir Henry Halford was invited to make the speech in presenting the Wimbledon Cup to Mr. Dudley Selph.

GENTLEMEN AND OFFICERS OF THE NATIONAL RIFLE ASSOCIATION.—You have done me the honor of making me the medium of presentation of this cup. I am glad, as it was the opportunity of recalling to your minds the circumstances which called it into existence, and explains its appearance on your list of annual prizes at Creedmoor.

The "scratch" team proposed was to include the pick of the three Echo-Shield "Elites," precisely as the present British team does.—Ed.] I was on the council at that time, and was one of the strongest opponents of the proposed match with the Echo-Shield teams, and I hold to that opinion still.

so called him myself, and he has proven himself such, not in team shooting, but in a match where he was thrown on his own resources, and was obliged to follow his own judgment. I consider a man a better marksman who makes a high score when shooting by himself than when with able coaching he runs up to great totals.

Sir Henry lauded Mr. Selph the great tankard; Mr. Selph responded briefly: Sir—As a representative of the South and as a rifleman I accept this cup. At the end of the year I must give it up; but I shall come with it (Sir Henry—Heart! Heart!) and strive again for its possession.

MILWAUKEE RIFLE CLUB.—The regular rifle practice at the 1,000 yard range, on Sept. 15, resulted in as close a record as 71 out of a possible 75 by Fielding. Jonston, 62; Welles, 60; Fielding, 71; Drake, 65; Hill, 63.

AN ERROR.—In your yesterday's issue in the report of the match, at South Vernon, Vt., of the National Rifle Club, there is an error, not yours, but mine. The "best aggregate" is credited to J. Williamson. It should be to "Sec. J. Brockway." You will much oblige me by noticing the error in your next. Respectfully W. D. CRAFT, 5 Beckman street, N. Y.

NOTICE TO SPORTSMEN.—Having received so many communications asking for information in regard to our six-section Danubio trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150.

New Publications

SALATHIEL, THE WANDERING JEW: A Romance by Rev. Geo. Croly, Philadelphia. T. B. Peterson. Price 75 cents.

There has appeared from time to time in various parts of the world, during the last eighteen centuries, a mysterious individual, known as "Salathiel, the Wandering Jew," the one who is said to have driven our Saviour, while bending under the weight of His cross, from his door, for which he was cursed to live forever, to have no rest or peace on earth, and in consequence, he became a sojourner in all lands, yet a citizen of none; professing the profoundest secrets of opulence, yet generally living in a state of poverty; being conversant with the events of every age, without lineage, or possession, or pursuit on earth—a wanderer and unhappy—bearing the sorrows of centuries on his brow, and crying out at last, while withering in soul with remorse for the guilt of an act of madness: "I wandered to the deserts of Arabia; I joined a caravan journeying towards the Holy City—it lost its way—hunger and thirst tortured us, and put a brand, as it were, of hot iron upon our lips. My companions fell around me upon the burning sand, our beasts of burden sank to rise no more, the Simoom blew its poisoned breath over the parched and verdureless earth; the sun's heat dried the blood in my veins. I did not die, but I suffered alive that which killed my fellow-travellers. The elephant trampled me under his feet; the tiger gnawed my flesh with his iron teeth; the anaconda drew his mighty folds around my limbs, but in vain did they mangle me; a voice from above cried, 'Live, Salathiel, live! Pursue thy endless journey. On—on—on—forever!' My bones cracked, my flesh quivered, but the blessing of death was withheld from me—I cannot die—I cannot die—will there never be any rest for me? Jesus of Nazareth, pardon! pardon! have mercy on me! At that moment a strain of heavenly music came down, as it were, from the skies: the air was perfumed with the fragrance of unseen flowers; a stillness as of death followed the harmonious sounds, and a feeling of joy unfelt before came over my senses. Earth now looked beautiful: the curse was removed." He was told to close his eyes and sleep. He obeyed. It was the sleep of death. The Wandering Jew was called home. "Salathiel" is published in a large octavo volume, paper cover, with the edges cut open all round, price seven-fifty cents, or bound in morocco cloth, gilt and black, price one dollar, and is for sale by all Booksellers and News Agents, and on all Railroad trains, or copies of it will be sent to any one, to any place, at once, on their remitting the price in a letter, to the Publishers, T. B. Peterson & Brothers, Philadelphia, Pa.

"PETERSON'S DOLLAR SERIES OF GOOD AND NEW NOVELS."—Something entirely new in literature is a series of choice works of fiction now publishing by T. B. Peterson & Brothers, Philadelphia, Pa., under the above title, which are the largest, the best, the handsomest, as well as the cheapest books ever published. They are all printed from large type, and are all issued in uniform style, in large duodecimo volumes, and are bound in red or blue vellum, with gold and black sides and back, and are sold at the low price of One Dollar each, while they are as large and as handsome as any books published at \$1.75 and \$2 each. The following popular books have already been issued in the "Dollar Series," viz: "Country Quarters," by the Countess of Blessington; "My Son's Wife," by the author of "Caste"; "The Heiress in the Family," by Mrs. Daniel; "Saratoga, The Famous Springs," a Love Story "Self-Love," a Book for Young Ladies and for Women; "The Man of the World," by Wm. North; "The Queen's Favorite; or, The Price of a Crown"; and "The Cavalier," by G. P. R. James, being the last novel he ever wrote, and a new one will be added to the series every month. This series of books is proving to be the most popular ever issued, and the volumes should be read by all lovers of good novels, and find a place on every centre-table and in every library. They will be found for sale by all booksellers, or copies of either one or all of them will be sent, post-paid, to any one, to any place, on remitting the price of the ones wanted, to the Publishers, T. B. Peterson & Brothers, 306 Chestnut street, Philadelphia, Pa.

From the Oologist we take the following hints on tree-climbing. They are contributed by Mr. W. H. Ballou:

On the whole, climbing-irons are a failure, for unless a person has stout nerves and a strong brain he can make but little headway. The stout nerves and a strong brain he can make but little headway. The stout nerves and a strong brain he can make but little headway. The stout nerves and a strong brain he can make but little headway.

1st—Small nests, on or about the small limbs of large trees. 2d—Large nests, in huge, high trees, limbless and dangerous. 3d—Nests on sides of precipices, or other rocky positions. The remarks on each are nearly applicable to all other cases or minor divisions. In making oological excursions it is necessary always to have some implements along, such as rope, hammer and nails, and some heavy spikes. In treating of the first class, if the trees are small the limb on which the nest is placed can be sawed off and the nest carefully brought to the person engaged. Where the limbs are large and extend to quite a distance from the tree, do not attempt to saw it off, but fasten a rope of sufficient length at the intersection of the limb and tree and securely round the body under the arms, and clamber to all other parts of the limb, where, if the nest is on the end, the limb may be sawed off and secured. This is the most perilous climbing, and the idea of keeping the eye on objects of the same level must be rigidly kept in view. It is a place, too, where all one's wits and stratagems must be brought to bear. The method showing how to get to that limb is treated under the second class.

Under the second class we have those huge dead (usually) trees in which eagles and various other birds of prey erect their strongholds. Probably of this class there is no bird equal to the California wren tanager for defiance to the arts of man in its selection of nesting places, which are usually on giant trees on precipitous cliffs. The quickest method of ascending such trees is by the use of a rope of about an inch and a half in diameter and six or seven feet long. Pass this rope around the tree and body, and tie it so that you fit snugly between, push the rope up with you, keeping it about the middle of the body. When you wish to rest push the rope up as far as possible on the opposite side of the tree and sit on it.

Another method is to make a ladder of the tree by nailing staves up the tree and thence by driving in heavy spikes. Either way is often well worth the trouble of emptying, and will enable one to climb any tree. There is but one safe way of reaching nests on the sides of precipitous cliffs, and that is by being let down on a rope or in a basket. A gaff hook should be carried with a long light handle, to draw nests or limbs up to one.

In reviewing these methods, it is done in hopes of bringing out views from all parties, and it is hoped that a goodly collection of methods may be obtained.

The Oologist for October will be a number of unusual interest, and will contain several noteworthy articles, among which may be mentioned "The Tariff and the Hard Times," by Horace White; "Forest, from an Actor's Point of View," by Lawrence Barrett; a chapter on "President Lincoln's Administration, giving Mr. Lincoln's ideas of colonization as an accompaniment to emancipation," by Hon. Gideon Welles, late Secretary of the Navy; "The Planet Mars," by Captain Raymond of the United States Corps of Engineers, who was one of the transit of Venus expedition; an article by Captain E. Simpson, United States Navy, "On Modern Naval Warfare;" a striking story by Turgenieff. The above articles, with the departments, will make up a very brilliant number.

—Charles Hallowell, Esq., editor of the well known and popular sporting paper, the FOREST AND STREAM, of New York, is on a visit to Minnesota, where he proposes to enjoy himself for a brief period. Mr. H. was in St. Paul the last time twenty years ago, and he is amazed at the imperial proportions which this metropolis has reached since that time; and as he is the guest of the leading railroad men of the Northwest, who are showing him over the finest sporting region of the world, the more he sees of the progress of our glorious Minnesota, the more will he be astonished and delighted.—St. Paul Pioneer.

CALENDAR OF EVENTS FOR THE COMING WEEK.

Friday, Sep. 21.—Trotting: Chicago, Ill.; Narragansett Park, R. I. Beaver, Pa.; Dover, N. H.; Mendon, Conn.; Catskill, N. Y.; West Chester, Pa. Base ball: Lowell vs Pittsfield, at Pittsfield, Mass.; Continental vs Monticello of J. C. at Pittsburg Park; Amateur vs Star, at Greenville, J. C.; Fall River vs Hornell, at Fall River; Athletic vs Chicago, at Philadelphia.

Saturday, Sep. 22.—Trotting: West Chester, Pa. Base ball: Fall River vs Hornell, at Fall River; Continental vs Boronoco, at Brooklyn; Produce Exchange vs Star, at Greenville, J. C.; Boston vs Lowell, at Boston; Hoboken vs Quikstep, at Centennial Ground.

Monday, Sep. 24.—Trotting: Ambler Park, Pa.; Dayton, O. Base ball: St. Louis vs Cincinnati, at Cincinnati; Fall River vs Cricket, at Binghamton; Buckeye vs Teoumsch, at London, Can.

Tuesday, Sep. 25.—Trotting: Ambler Park, Pa.; Dayton, O.; Elmira, N. Y.; East Saginaw, Mich.; Flora, Ill.; Toledo, O.; Fleetwood Park, N. Y.; Creston, Ia.; Kansas City, Mo. Base ball: Buckeye vs Tecumseh, as above; Hornell vs Cricket, at Binghamton.

Wednesday, Sep. 19.—Trotting, as above; also at Sharon, Pa., and Montgomery City, Mo. Base ball: Chicago vs Louisville, at Louisville; St. Louis vs Cincinnati, at Cincinnati; Hornell vs Wilkesbarre, at Wilkesbarre.

Thursday, Sep. 20.—Trotting, as above, Base ball: Chicago vs Cincinnati, at Cincinnati; St. Louis vs Louisville, at Louisville; Hartford vs Boston, at Byston; Hornell vs Wilkesbarre, as above. Rowing contests on Owasca Lake, N. Y.

Tiffany & Co., Silversmiths, Jewelers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. TIFFANY & CO. are also the agents in America for Messrs. PATEK, PHILIPPE & Co., of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones, General Jewelry, Artistic Bronzes and Pottery, Electro-Plate and Sterling Silverware for Household use, fine Stationery and Bric-a-brac, is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York.

TO SPORTSMEN IN GENERAL!

Headquarters Bohemian Glass Works, 214 PEARL STREET, NEW YORK.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting...

IRA A. PAINE,

to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell.

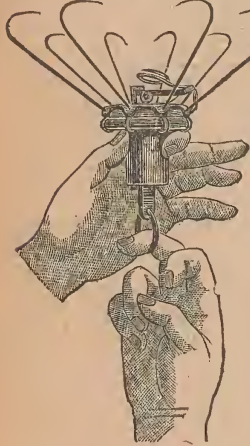
In offering this new ball to the public it will require very little introduction, as in no instance where it has been exhibited has it failed to take the place of all others...

The following is from the New York Herald, Sept. 1:

THE BRITISH VISITORS RECREATING AT ELM PARK—A TRIAL AT GLASS BALL SHOOTING.—The visiting riflemen, accompanied by Judge Gildersleeve, Col. John Bodine and Mr. L. M. Ballard...

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300 or boxes of 500.

A VICTORIOUS INVENTION The Eagle Claw.



An ingenious device for the purpose of catching all kinds of Animals, Fish and Game. The easy method of setting the Eagle Claw, combined with the simplicity of removing the victim...

It is immaterial how to place it when set. It may be buried flat in the ground, suspended from the limb of a tree...

It is adapted for bait of any description, and, when set, no Animal, Fish or Bird that touches the bait can possibly escape.

It does not mangle or injure its victims in the slightest degree, nor need they be handled to free them from the trap.

PRICE LIST:

- No. 1.—For fishing and all kinds of small game and animals, sent by mail... 35 cents. No. 2.—For catching Mink, Muskrats, Raccoons, large Game, Fish, &c. 75 cents. No. 3. or Rocky Mountain Giant, for catching Bears, Wolves, Panthers, &c. Can be easily set by a boy...

Stent & Co., Gen'l Agents, 132 Nassau St., NEW YORK. P. O. Box 2997.

AGENTS WANTED

SHELLS LOADED TO ORDER

AT ONE CENT EACH,

J. F. MARSTERS, 125 Nassau Street, New York, AND 55 COURT STREET, BROOKLYN.

Having the best facilities in New York city for loading shells, we require but two hours notice to fill orders. Sportsmen who bring pigeon matches can rely on having their shells accurately loaded...

MAIL ORDERS PROMPTLY ATTENDED TO.

ESTABLISHED IN 1837.

Consult your interest by sending for our revised and reduced prices.



Excelsior

LATEST IMPROVEMENT. Double Treadle, including one doz. Saws, try imitating Best Sawing Patterns and prepared Wood to the value of \$4. A new device for tightening Saw, Power Drilling attachment, Wrench, Oil Cup and Screw Driver...

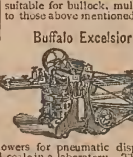


BUFFALO PONY PLANER

NEARLY ONE THOUSAND IN USE. Buffalo Pony Planer. Will clean in self, and pay expense of running in 9 days. Price from \$50 and upwards, each.



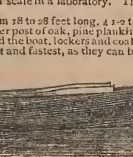
SMALL STEAM ENGINES. With Copper Boiler, to drive Light Lathes, Scroll Saws, etc. All sizes from 1/2 up to a horse power, either plain castings, partly finished, or complete, ready for use.



LIGHT MACHINES FOR PONY OR HORSE POWER. The great success of these machines is unprecedented, and it may be confidently surmised that no article has ever more clearly proved its superiority for the quantity and quality of its work than this. It is made in several sizes, and can be fitted up to those above mentioned.



Also Engines and Boilers capable of propelling 25 to 40 inches. The boats have keel, stern, with rudder and tiller, row locks and oars. Those wishing a pleasure boat will find



Best of its kind in use. Price, complete, \$275. Also Planing Machine. Knives, which are recommended as superior and extra in quality.

Patented March 30, 1875. Best of its kind in use. Price, complete, \$275. Also Planing Machine. Knives, which are recommended as superior and extra in quality.

Illustrated Catalogue containing One Hundred Scroll Work Designs mailed to any address free on receipt of Stamps. GEORGE FARR, BUFFALO, N. Y., U. S. A.

NEW YORK SHOOTING COAT.

A first-class Coat. No shooting outfit complete without it. Pleasant to wear, durable, and in the end the cheapest. Full suit of same material if desired.

MADE OF BROWN VELVETEEN.

Pockets and lining made to take out, so that it may be worn for early fall or winter shooting. (Horace Smith, Esq., says it is just his idea of a shooting coat.) For sale by

H. C. SQUIRES, 1 Cortlandt St., N. Y., Or F. L. SHELDON, Rahway, N. J.

Also, in addition to the above, we are making a Canvas Suit; coat, cut same style as the Velveteen goods, not stiff but soft and pleasant to wear; waterproof, guaranteed to shed water. Sportsmen who have seen it say it is The Best Yet. Coat, \$6.50. Suit, \$14.00.

Rules for measurement and samples sent upon application. Prices ranging from \$15 to \$30. Ag20 ft

For Sale,

The Kennel.

A Valuable Ducking Shore For Sale. For Sale.—The well-known ducking shore "Cock-holds Point" formerly owned by David Towson...

CHEAP—A fine English 10-bore, 32-inch barrel, pistol-grip, top snap action, breech-loading shot gun, for sale. Also fine English rifle and shot combined breech-loader, pistol-grip, 44 cal. and 12-bore. G. W. HOWARD, this office. Sept20 3c

FOR SALE—Birch canoe for one; strong; weight about 35 lbs. Address ELLERIS, FOREST AND STREAM office. Sept20 3c

FOR SALE, CHEAP—A first-class double breech-loading Scott gun, 9 lb., 10-bore. Apply to W. H. B., Fisherville, N. H. Sept13 2c

NOTICE TO SPORTSMEN.—FOR SALE.—The best shooting property for a club or private party on the New Jersey coast, 80 acres on Barnegat Bay (west side), about sixty miles from New York or Philadelphia, two miles water front; a single breech-loading Scott ducking gun, 6 bore, a very fine gun, for sale, cheap. Address OWNER, box 163, Toms River, N. J. Sept13 2c

FOR SALE—One Dozen Birch Bark Canoes. These boats are in perfect order, from 18 to 20 feet long, cost from \$20 to \$25 according to size, and are just from the Grand Lake Region, Maine. Address the manufacturer, GUDB'G JOCK, care Edward Thayer, Esq., Lebanon Mills, Pawtucket, R. I. Sept6 3c

BLOOMING-GROVE PARK ASSOCIATION. One share in above association for sale at a very low price. The best Game Preserves in America. Trout, Black Bass and Pickerel fishing afford SPORT, this office. Feb21 ft

A VERY DESIRABLE ESTATE, either for market gardening or general sporting purposes, at the South, will be leased to responsible parties for a long or short term of years. Persons intending to locate in Florida will do well to investigate. Ag2 3m Address "SPORTSMAN," this office.

The Kennel.

Smith's Worm Pills for Dogs.

Box sent, post paid, on receipt of 35c. Address BENJ. SMITH, Sept13 m 80 Green st., Charlestown, Mass.

FOR SALE—One pair English setters, broken; also a young bitch, with a pedigree for fifty years. Address E. J. ROBBINS, Wethersfield, Conn. Sept18 2c

FOR SALE—A brace of thoroughbred, exceedingly well broken dogs, one a pointer the other a setter. Will bite and catch. Both good retrievers. Address HORACE SMITH, No. 1 Cortlandt street, N. Y. Sept13 3c

IRISH SETTER PUPS, three months old, out of I. Connors and Gypsey, and sire of pups, Don and York, both imported from Ireland, York, prize winner in Ireland and this country, for sale. Imported Irish setter, Don, broke on quail and snipe; fast, staunch, with great endurance; price \$25. One Gordon bitch, two years old, and one Gordon bitch, 15 months; price \$30 each. Address H. B. VONDERSMITH, Lancaster, Pa.

MY setter dog Duke for sale, of first-class pedigree, a good retriever and a noble dog; twenty-five months old. Price \$60. Also a splendid mid-range file with vernier sights, price \$45. Inquire of address REV. J. PULLMAN, 575 Nostrand Ave., Brooklyn. Sept20 ft

FOR SALE—Four Beagle hound pups, two dogs and two bitches; now five months old. Address MERITT J. STRADER, Newton, Sussex County, N. J. Sept20 3c

THE N. Y. Kennel Club offer for sale their Irish Bitch Flirt, 2 1/2 years old, by Salties Dash out of Dr. Strachan's Belle. Very handsome. Has had one litter and will make an excellent brood bitch. Price \$50. Sept20 ft

FOR SALE, for want of use, a handsome white and tan colored setter, two years old and bred of good disposition. Price \$35. Address W. H. YOUNG, P. O. Box 516, Poughkeepsie, N. Y. Sept20 2c

FOR SALE.—Red Irish Setter, 2 1/2 years old. Very cautious; shot over all last season; good as terrier, land or water. Particulars by letter. Price \$25. Spriner spawel Gyp, 8 months old, partly broken, 2 1/2. Cook's special pup, very fine, 2 1/2. TWO 1/2 c. CANTWELL, Braintree, Minn. Sept20 ft

A FINE setter dog for sale, four and a half months old. LOCK BOX 109, Milford, Mass. Sept20 2c

TWO English black setters for sale, well broken and guaranteed. Address W. HUMPHREY, care of Jcsph Bagott, 31 Fulton St., N. Y. Sept20 ft

Fleas! Fleas! Worms! Worms! STEADMAN'S FLEA POWDER FOR DOGS.

A Bane to Fleas—A Boon to Dogs. This Powder is guaranteed to kill fleas on dogs or on any other animals, or motley returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.

Price 50 cents by mail, Postpaid

ARECA NUT FOR WORMS IN DOGS. A CERTAIN REMEDY.

Put up in boxes containing a dozen powders, with full directions for use. Price 50 cents per Box by mail. Both the above are recommended by ROD AND GUN and FOREST AND STREAM.

W. HOLBERTON. oct 12 102 NASSAU STREET.

EDINA KENNEL. JESSE SHERWOOD, PROPRIETOR, Edina, Knox County, Mo., breeder and importer of Sporting Dogs, Pointers, setters, spaniels, fox and beagle hounds. "Sancho" Imp. Pointer, stud dog; fee, \$35. See English K. C. S. B. No. 1,005. He is a grandson of the celebrated "Ham" dog. "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874, three here.

Second Annual Bench Show

AT ST. LOUIS, MISSOURI, OF SPORTING AND SHEPHERD DOGS.

Held under the auspices of the St. Louis Fair Association, commencing Tuesday, October 2d, and closing Friday, October 5th, 1877. One Thousand Dollars in premiums, cash. Entries close September 28th, 1877. A communication must be addressed to C. H. Turner, Fair Association, St. Louis, Mo. The St. Louis Kennel Club dogs will not be entered for competition. CHAS. LINCOLN, Superintendent. JOHN DAVIDSON, Monroe, Mich., Judge. Sept6 5t

FOR SALE—Two of the best bred and best broken field setters in the world. Of the celebrated Liverack, Lovellity and Starter strains. Perfect on game in every respect. D. HOLLICK, Esq., Ag-bear Hall, Boisworthy, Devonshire, England. Aug23 5t

FOR SALE—3 or 4 red setter puppies, with full pedigree, from my red and white bitch Jessie, by Echo, Jessie is from May (Hubbells) by rock Mr. Marshall's, of the Paul Mead strain. For price and pedigree, address A. D. LAWS, Bridgeport, Conn. Sept6 5t

FOR YOUNG COCKER SPANIEL STOCK from the choicest breeds. Inquire of M. P. McROON, Franklin, Del. Co., N. Y. Dec25 1y

TRAIN your own dogs in the most artistic manner. Send for circular to M. VOX COLLIN, Delaware City, Del. Sept13 m

FOR SALE.—A fine lot of Scotch, Skye, Dandy, Dumfriesshire and Black-and-tan Terriers, Sporting Dogs, Maltese Cats, Ferrets, &c. Medicines for all diseases at L. N. MEYER, 45 Great Jones street N. Y. Sept21 1y

FOR SALE, when eight weeks old, six puppies out of my blue helton setter Moll, by Bob Boy. They are black and white. Two of them are black, white and tan, and are almost perfect judges of their sire. For particulars, address L. E. WHITMAN, 5 City Hall, Detroit, Mich. Sept21 ft

FOR SALE.—Trained young setters, imported stock. For particulars address FRANKLIN SUMNER, Milton, Mass. Aug30 4t

FOR SALE—Fox hounds, No. 1 stock; very fast and strong-setted; some one year old and some pups. L. M. WOODEN, Rochester, N. Y. Aug17 ft

FOR SALE—One red Irish setter stud, 3 years old, broke and line disposition. Price \$25; cheap. Also six Irish setter pups, 3 months old. Price \$10 each. Address D. G. WEBSTER, Paris Cortes, Ill Sept6 3c

FOR SALE—Five pups, liver and white, three c dogs and two bitches, out of Wirt, by Smedley Dash; price \$15 each. Address W. A. GALLOWAY, New Dorp, Richmond county, N. Y. Sept21 2c

FOR SALE.—Red Irish setter puppies by Plunkett out of Hon. John E. Develin's imported red Irish setter bitch Moya, who took first prize as brood bitch in her strain at N. Y. Bench Show in May. Also puppies by Dr. Jarvis' imported red Irish dog Elabo, out of same bitch and puppies by imported red Irish setter dog Hufus, who also took first prize in his strain at the same show, out of Mr. Develin's Mollie, full sister to Moya. Apply to DAVID G. ARTT, North Fort, Long Island. Aug30 4t

FOR SALE.—Two thorough broken setter dogs. One a Red Irish and the other, "Paul Mead," an imported Gordon, formerly the property of a gentleman lately deceased. Address W. HUMPHREY, care Joseph Bagott, 31 Fulton street, N. Y. Sept20 1t



New Articles

**GOOD'S OIL TANNED MOCCASINS.**



The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine article. Send for illustrated circular. MAHTIN S. HUTCHINGS, P. O. Box 363, Dover, N. H. (Successor to Frank Good.)  
W. HOLBERTON, 102 Nassau St., N. Y., Agent.

**Folding Pocket Mosquito Bar.**

A most ingenious device for camping purposes. It is very light, easy to carry and can be put up or taken down in half a minute. Pronounced by sportsmen to be the most complete thing of the kind ever offered to the public. Price only \$1.50. Lawn covered, expressly for Florida travel, \$3.50. Sent post-paid on receipt of price. Liberal discount to the trade.

A. A. COWING, Watkins, N. Y.  
W. HOLBERTON, 102 Nassau St., N. Y., Agent.

Sportsmen's Routes.

**Sportsman's Route.**  
CANADA, SOUTHERN RAILWAY.

Direct Connections at Buffalo with New York Central and Erie Railway.  
At Detroit, with Michigan Central Railroad.  
At Toledo, with Toledo, Watash and Western Railroad.

DOGS CARRIED FREE and given special attention.  
THROUGH CARS—FAST TIME  
AIR LINE—STEEL RAILS.

FRANK E. SNOW,  
G. P. & T. Agent, Detroit.

NEW HAVEN, HARTFORD, SPRINGFIELD, White Mountains, Mount Mansfield, Lakes Memphreagog and Willoughby, Montreal and Quebec. Shortest, quickest and most pleasant route. Steamers C. H. NORTHAM and CONFIDENTAL leave Pier 25, East River, daily (Sundays excepted) at 3 P. M. (2:30 at E. R. 3:15 P. M.) and 11 P. M., connecting with trains on wharf at New Haven for above and intermediate places.

Passengers taking 11 P. M. steamer (except Saturdays and Sundays) can reach White Mountain, Lakes, etc. next afternoon.  
Tickets sold and baggage checked at No. 944 Broadway, New York, and No. 4 Court Street, Brooklyn. Full particulars at office on Pier 25.

RICHARD PECK, Supt.

Gunpowder.

**ORIENTAL POWDER MILLS**  
MANUFACTURERS OF ALL KINDS OF  
**GUNPOWDER**

Office—13 BROAD STREET, BOSTON.

BRANDS—DIAMOND GRAIN, FALCON DUCKING, WILD FOWL SHOOTING, WESTERN SPORTING. (Oriental Rice.)

The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES.  
J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y.  
Cobb & Wheeler, Agents, 9 State St., Chicago, Ill.  
C. J. Chapin, Agent, 213 Locust St., St. Louis, Mo.  
Agencies in the principal cities in the United States.

Guns, Rifles, Etc.



THE NEW AMERICAN  
**Breech-Loading Shot Gun**

For close hand shooting excels all others. Price \$17. Send for circular. Duck guns, extra heavy, a specialty. HYDE, SHATTUCK & CO., Mfrs., Hatfield, Mass. Sept 6m.

REMOVAL.

**HODGKINS & HAIGH,**  
Dealers, Manufacturers and Importers of  
**FIRE ARMS**  
AND  
**SPORTING GOODS**

In general, having removed to  
NO. 268 BROADWAY,  
respectfully solicit a continuance of the patronage heretofore extended,

Gunpowder.

**Warren Powder Mills,**  
MANUFACTURERS OF  
BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS—Eureka, Continental, "Border Rifle," Snap-Shot, and Warren Sporting Canon and Musket, 11.3. standard. The above can be had of the dealers, or at wholesale at the office, 27 Doane street, Boston, Mass., and of the agents, JOHN P. LOVELL & SONS, corner of Washington, Cornhill and Brattle street, Boston, Mass., 3739

THE  
**HAZARD POWDER CO.**  
MANUFACTURERS OF  
**GUNPOWDER.**

**Hazard's "Electric Powder."**  
Nos. 1 (fine) to 6 (coarse). Unsurpassed in point of strength and cleanliness. Packed in square canisters of 1 lb. only.

**Hazard's "American Sporting."**  
Nos. 1 (fine) to 3 (coarse). In 1 lb. canisters and 6 1/4 lb. kegs. A fine grain, quick and clean, for upland prairie shooting. Well adapted to shot-guns.

**Hazard's "Duck Shooting."**  
Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 6 1/4 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzie or breech-loaders.

**Hazard's "Kentucky Rifle."**  
EFFG, FFG, and "Sea Shooting" FG, in kegs of 25, 12 1/2 and 6 1/4 lbs. and cans of 5 lbs. EFFG is also packed in 1 and 5 lb. canisters. Burns strong and moist. The EFFG and FFG are favorite brands for ordinary sporting, and the "Sea Shooting" FG is the standard Rifle powder of the country.

**Superior Mining and Blasting Powder.**  
GOVERNMENT CANNON & MUSKET POWDER; ALSO, SPECIAL GRADES FOR EXPORT OF ANY REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER.

The above can be had of dealers, or of The Company's Agents in every prominent city, or wholesale at our office,  
33 WALL STREET, NEW YORK.

THE New Dittmar Powder.

THE CHAMPION POWDER OF THE WORLD  
For all off-hand shooting at short and long ranges. Unsurpassed for Cleanliness. Pleasant to shoot on account of little recoil and report. Desirable for hunting on account of little or no smoke. Unequaled for rapid firing, as it does not foul and heat up the barrel as black powder. Great accuracy, penetration and good pattern. Safer than black powder. Address

CARL DITTMAR, NEPONSET, MASS.

Fishing Tackle.

PHILADELPHIA  
**Fishing Tackle House.**



A. B. SHIPLEY & SON,  
503 COMMERCIAL STREET, PHILA.

Manufacturers of FINE FISHING TACKLE  
A Specialty of the  
Celebrated Green Heart Wood for Amateur Rod Makers. Rod Mountings in Sets for 75c. to \$6.75.

RODS, REELS, ETC., REPAIRED.  
Shipley's Self-Hooking Elastic Snells, "catch every fish that bites." Send for sample.  
For Trout on gut, 10c. each, 75c. per doz.  
For Bass on dog-ear gut, 12c. each, \$1 per doz.  
Highest premium at Centennial, 1876, and Franklin Institute, 1874.

COMPETITION IS THE LIFE OF TRADE.  
**J. B. CROOK & CO.,**  
**FISHING TACKLE,**  
50 FULTON STREET, NEW YORK  
Makes the Immense Reduction.

Greenheart Rods for Trout and Bass Fishing, \$1.5 to \$50. Ash and Lancewood Rods for Trout and Bass Fishing, \$7 to \$12.  
Everything else in proportion. Goods sent C. O. D. to all parts of the United States and Canada.

**H. L. LEONARD,**  
BANGOR, MAINE,  
Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty  
Great reduction in prices. Trout Rods, full mounted, \$30, formerly \$50; other rods in proportion.  
Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof ferrule," and warranted against imperfections in material and workmanship.  
Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancewood. MADE TO ORDER.

I was awarded a MEDAL AND DIPLOMA at the Centennial for my Split Bamboo Rods.  
Also manufacturer of Patent Reels for Salmon and Trout Fishing. The lightest, strongest, and handiest Reels ever made.  
Full line of FISHING TACKLE always on hand.  
Send for circular and price list.

Jot

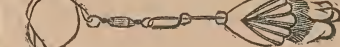
Fishing Tackle.

**ABBAY & IMBRIE,**  
SUCCESSORS TO  
**ANDREW CLERK & CO.**

**Fishing Tackle**  
Of Every Description.

FINE GOODS FOR SPORTSMEN A SPECIALTY.  
NEW YORK, LONDON, REDDITCH,  
HAVANA AND RIO JANEIRO.  
Send for Price List to Box 4764,  
48 Maiden Lane, N. Y.

SKINNER'S  
**New Fluted Bait.**



The best bait used for Bass and Pickerel Fishing Bass size, 75 cents; Pickerel size, \$1 each, by mail post-paid, on receipt of price. Esq's Clay, for catching Fish and Game, samples by mail, 35 and 75 cents. Send stamp for illustrated price list of Fishing Tackle and Sporting Goods.

FISH & SIMPSON,  
132 NASSAU ST., NEW YORK.

McBride Flies.

MEDAL AND DIPLOMA FROM INTERNATIONAL EXHIBITION, PA., 1876,  
DECREE FOR  
'EXCEEDINGLY NEAT WORK WITH SOLIDITY OF CONSTRUCTION.'

A fine assortment of FLIES for Trout, Salmon and Bass constantly on hand. Also Casting Lines. Flies carefully selected for the different seasons and waters.

Goods promptly made to order from any pattern desired. Address

Miss Sara J. McBride,  
Maufoed, Monroe County, N. Y.  
W. HOLBERTON,  
Sole Agent for New York City. 371

J. F. MARSTERS, Manufacturer of Superior ARCHERY.



Ladies' Lance wood Bows, beautifully finished, plumb-handle, horn-tipped, dark color; 4-foot, \$9.50; 4 1/2-foot, \$3.00; 5-foot, \$3.50. Gent's, same as above, 5-foot, \$3.50; 5 1/2-foot, \$4.00; 6-foot, \$4.50. Ladies' Arrows, plain wood, three feathers; 24-inch, \$1.50 per doz.; 26-inch, \$1.75 per doz. Gent's arrows, plain wood, three feathers, 25-inch, \$1.75; 28-inch, \$2 per doz. Superior polished and painted, \$2, \$3, \$4, \$5, \$6 per doz. Ladies' gloves with round tips, \$1.25; gent's, \$1.50 each. Ladies' arm-guards with elastic, \$1.25; gent's, \$1.50 each. Quivers for holding arrows, with belt, 25c. each. Straw targets, handsomely painted, see above cut, 18-inch, \$2; 21-inch, \$2.50; 24-inch, \$3.75; 30-inch, \$4.50; 36-inch, \$5. Ebony and rosewood box with quivers, 25c. 50c. 75c. each. Tassels, 60c. and 75c. each; bow strings each, 40c.; best, 50c. Iron target stands, \$4 each. Archery Book of Rules by mail, 25c. Also on hand and for sale all the necessary woods and trappings for amateurs to make their own bows. All the above goods are manufactured by me and are warranted. Goods sent C. O. D. to all parts of the country.

J. F. MARSTERS,  
125 Nassau St., New York, and 55 Court St., Brooklyn. aug9 17

DINCEE SCRIBNER, Manufacturer of

salmon and Trout Rods, Salmon and Trout Flies Casting Lines, Landing Nets, Gaffs, etc.  
Best Greenheart Rods at \$9, \$11 and \$15 each.  
Waterloo Street, St. Johns, N. B. 3712 6m

The Ludlow Trout Co.

Will this year take from one to two million brook trout eggs (ready for shipment from Nov. 10 to Dec. 20) at lowest prices. Send for price list. Address

B. FREEBURG, SUPERINTENDENT,  
Aug 23 3m Ludlow, McKean County, Pa.

Sportsmen's Goods.

BOSTON SHOOTING SUIT.

Manufactured only by  
G. W. SIMMONS & SON,  
BOSTON.

Each article—coat, trousers, vest and hat—have the name and manufacturer's address stamped upon it, and no suit is genuine without it bears this imprint.

The suit can be sent, securely packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit.

We make no discount except to the trade. We make but one quality, and that is the VERY BEST. The price of the suit complete is \$13.

The suit consists of coat, trousers, vest and choice of either cap with havelock, or hat.

The material is of the best quality of duck, waterproofed by a patent process. The color is that known as "dead grass shade."

The seams and pocket corners are riveted, and nothing is neglected to make the whole suit complete in every way.

OUR HUNTING SHOES,

which are considered the best in use, are also sent by mail at an advance of 35 cents above the price \$5.50 per pair. These shoes are made to our special order to match our suits, and the design of the whole embraces the best points of the English and French equipments, combined with all necessary requirements for American service.

Such a popularity as the "Boston Shooting Suit" enjoys, has never been attained by any other stailgarment in this country. It is in constant demand from all parts of America, and orders have been filed for Canada and England.

"Shipping clothing to England strikes us very much like sending coals to Newcastle," but the merits of the BOSTON SHOOTING SUITS have been heard of in the Old Country, and that land sportsman has sent an order to Messrs. Simmons & Son, which will doubtless be followed by many others."—Boston Paper.

The author of "Tales of the Adirondacks," the Rev. W. H. Murray, one of our most enthusiastic sportsmen, says of it:

"We were shown the other day a new waterproof suit, specially adapted for sportsmen, designed and made up by Simmons & Son, of Boston, and to which we call the attention of all brethren of the out-door and shore-shooting fraternity, because it meets the demand of personal comfort and convenience beyond anything of home manufacture seen by us before. As a sportsman, we give it our unqualified endorsement, as combining the best points of the English suits, and in addition skillfully adapted to the necessities of the American service. It is a most admirable and satisfactory contrivance in color, style, waterproof quality and capacity. The coat is a marvel in this latter respect."

THE FOREST AND STREAM SAYS:  
THE BOSTON SHOOTING SUIT.—One of the most successful manufacturers of waterproof shooting suits is the firm of G. W. Simmons & Son, Oak Hall, Boston. We had one of their suits on duty at Hunter's Camp, at Philadelphia Centennial Exhibition. It has grown gray in service, but is good for use yet. This suit is known as the "Boston Shooting Suit," in contradistinction no doubt, from the garments which are manufactured out West and at Washington, each of which has a local demand of its own.

A letter from San Francisco, Cal., says:  
G. W. Simmons & Son:

GENTLEMEN—I have this day received the "Boston Shooting Suit" ordered from you on the 18th. My object in writing is simply to say that they came to hand by mail in perfect order, and I am more than satisfied with each article. They are all, if not more, than represented in your advertisement in FOREST AND STREAM. They supply a want long felt here, and we have no doubt many will be ordered. I am obliged to you for sending by mail and thereby saving me several dollars. Enclosed please find the money to repay you for postage.  
Yours very truly,

A letter from Iowa says: "My suit was received this P. M. It is entirely satisfactory in every way. Thanks for your promptness."  
A letter from Indiana says:

DEAR SIRS—The suits came this morning and gave great satisfaction. I would like to order nine more. Hundreds of testimonials could be added.

DIRECTIONS FOR MEASUREMENT.

Around the breast. Inside seam of pantaloons. Around the waist. Size of head. Inside of seam or coat. Mention height and weight sleeve. Price of Suit complete, with choice of hat or cap, \$13 Note again, the coat and vest are all double-seamed, each pocket being riveted at corners with copper rivets. French hunting buttons on coat and vest. Each button-hole made of leather. The whole suit as described above is made of 10-oz. army duck, waterproofed by a patent process, and colored to the shade of dead grass. Each suit distinctly marked.

For those who prefer, we make a hunter's coat, with sleeves attached to the vest. We make but one grade of snit, and that is the very best in every particular.

An illustrated circular, containing full description of each garment, with sample of the material from which made, will be sent free on application.  
Address

G. W. SIMMONS & SON,  
Oak Hall, Boston, Mass.  
SEND FOR CIRCULAR.

Sportsmen's Goods.

PECK & SNYDER'S



Base-Ball Catcher's Mask,

Now used by all the prominent catchers when playing behind the bat.

We send samples, C. O. D., for \$3. Enclose stamp for the *Athlete Journal*, giving our latest prices of all goods in the sporting line.

Address PECK & SNYDER, Manufacturers, Ang 16 3m 124 Nassau street, N. Y.

COMPLETE OUTFITS

FOR Camping, Shooting & Fishing

Fine fishing and shooting tackle, camp stove, leather, rubber and canvas goods and tents for sportsmen. Tents, portable boats, moccasins, etc.

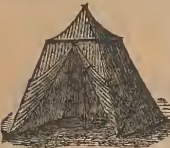
AGENTS FOR THE FOX GUNS.

The best and strongest American guns yet made. Sole agent for the celebrated MoBride files, Holberton's fly rods, black bass and trout flies, and fall length fly hooks; Purdy's glass ball traps and bull's-eye balls, etc. Send ten cents for illustrated catalogue, with rules for glass ball shooting, and hints on camping, shooting and fly-fishing for trout and black bass.

W. HOLBERTON,

P. O. Box 5, 109, 102 Nassau street, N. Y. Ang 23 tf.

Gale's Patent Tents,



Adapted to all purposes where Lawn, Beach, Hunters' and Camp Tents are used; are eight feet high, seven feet square at bottom, will lodge four persons; can be set up or taken down and packed in five minutes, making a bundle four feet long, of twenty-five pounds weight. The pole in two parts, is joined together by a brass tube. They are wonderfully light, and yet very strong, and are the handiest and cheapest tents extant. Samples of goods and price list sent free, and the tent sent on receipt of price, or C. O. D. Prices from \$10 to \$15.

GALE & CO.,

Ag 2 tf Boston, Mass.

Publications.

BINDERS.

Get your fine books bound. Art Journal bound uniformly to London publishers' style. Pictorial America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done into or three days if required.

E. WALKER'S SONS, 14 Dey street.

"THE OOLOGIST,"

A MONTHLY JOURNAL DEVOTED EXCLUSIVELY TO BIRDS AND BIRDS' EGGS.

This magazine, the favorite of amateur ornithologists, is now in its third volume. It is replete with all that is new or recent in Ornithology and Oology, and publishes important papers on the rarer of our birds and eggs. It is just the periodical for those making collections of birds and eggs for scientific examination, as its columns are constantly furnishing descriptions of the eggs of new and rare species.

TERMS—Forty cents a year, in advance. Specimen copies and prospectuses only on receipt of stamp. Address,

S. L. WILLARD & CO.,

Je 7 Onondaga st., Utica, N. Y.

LONG-RANGE RIFLE SHOOTING.

A Complete History of the International Long-Range Matches, 1873-1877—Complete Elcho Shield Scores—Rules and Regulations of the N. R. A. Etc., Etc.

FULLY ILLUSTRATED

BY THE RIFLE EDITOR OF THE "FOREST AND STREAM AND ROD AND GUN."

NEW YORK.

Published by the Forest and Stream Pub. Co. 1877.



STODDARD'S CARTRIDGE LOADING IMPLEMENT, COMBINING SEVEN DIFFERENT TOOLS, Cap Expeller, Recapper, Loader and Tube, Creaser, Cutter Crimper and Shell Extractor.

NO. 10 NOW READY.

Performing all the operations possible in the manipulation of Paper or Metal Shells for Breech-Loaders.

Length, 4 1/2 inches. Nickel Plated. Weight 10 ounces.

All the operations are perfect, and suitable for any shell.

AWARDED BOTH MEDAL AND DIPLOMA AT CENTENNIAL EXHIBITION.

PRICE, \$6.

Circulars sent on application. Send postal order or check to

C. J. STODDARD & CO.,

Lock-Box 192, Washington, D. C.

LIBERAL DISCOUNT TO THE TRADE.

THE UNITED STATES CARTRIDGE COMPANY, LOWELL, MASS.

Manufacturers of the

CENTRAL FIRE, SOLID HEAD,

BRASS SHELL, RE-LOADING CARTRIDGE,

Used by the Army and Navy of the United States and several Foreign Governments. All kinds of RIM FIRE AMMUNITION.

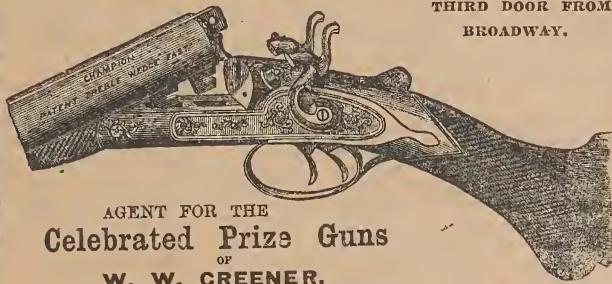
Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.

HENRY C. SQUIRES, No. 1 CORTLANDT STREET,

THIRD DOOR FROM BROADWAY.



AGENT FOR THE Celebrated Prize Guns OF W. W. GREENER.

Winner of the Manasse Silver Cup in 1876, presented by Mr. Purdy's, bearing all best London makers.

Winner of London Gun Trial, 1873, bearing 100 Guns.

These guns have been winners in every trial during the last three years, competing with all the first-class makers in England. The shooting of every gun is guaranteed, and prices as low as consistent with the good work. Guns built to exact order of sportsmen. I keep the best selected stock of guns by all the good makers to be found in this city, including Scott, Webley, Remington, Parker and Fox. Marshall's other makers to be found in this city, including Scott, Webley, Remington, Parker and Fox. Marshall's new Glass Ball Trap, \$5; three traps, \$12. English chilled shot, all sizes and in any quantities. Agent for new Glass Ball Trap, \$5; three traps, \$12. English chilled shot, all sizes and in any quantities. Agent for the Dittmar powder. Complete outfits for hunting and camping. Best Breech-Loader ever offered in the United States for \$35. Wholesale Agent for Holbird's Shooting Suits, and Camp Lounge Company.

LYMAN'S

PATENT BOW-FACING ROWING GEAR.



This invention enables an Oarsman to see where he is going. He sits with his face to the bow. Every Rower knows how awkward it is when pulling single, or as bow-oar in a crew, to have to turn and watch the course. By using this arrangement the Rower is brought into his proper position, and he can row as he would drive. There is NO LOSS OF POWER. Send for circular, directions and opinions of the press to the Patentee,

WILLIAM LYMAN, Middlefield, Conn.

OFFICE IN NEW YORK, 32 CORTLANDT STREET.

EDWIN HACKETT,

LATE OF E. & C. HACKETT, 37 GRACECHURCH STREET, LONDON, and

34 Lower Loveday street, Birmingham, England, Manufacturer and Importer of

Breech-Loading Shot-Guns,

With all recent improvements. No. 1—Pin-fire made central. Fitted with English rebound locks, self-lifting strikers, pistol-grip hands. Guns bored to shoot close. Cleaning, respicing, browning, etc. Orders from dealers promptly attended to.

104 WILLIAM STREET,

Sept 13 3m New York.

PAINTING.

EVERY ONE THEIR OWN PAINTER.

50 Per Cent. Saved.

We are manufacturing a very fine Pure Ready-mixed Paint, mixed in such a manner that any ordinary stable or farm hand can make as good a job painting as a painter can with paint mixed in the old way. This is because our paint does not set quick, and thus show marks of the brush. We sell it lower than materials can be bought in the ordinary way, and pay freight in certain sized orders. Any gentleman wishing to paint up his buildings at small expense had better write, and have sent free our book.

Address 250 Front street, INGERSOLL PAINT WORKS.

Sportsmen's Goods.



HAMMOCKS

FOR LAWNS AND EXCURSIONS

Tents, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seats, etc. Send for Illustrated Circular. G. WEBSTER PECK, Manufacturers' Agents, 110 Chambers st., N. Y.

EVERY DESCRIPTION OF Sporting Goods.

GUNS, RIFLES, PISTOLS & FISHING TACKLE, HUNTING AND FISHING SUITS, CAMPING OUTFITS.

Bogardus' Glass Ball Traps, \$10.00; Glass Balls, per hundred, \$2.40.

Send \$2.50 for our "Wasp" Revolver, 22 cal. 7 shot nickel-plate, warranted. Satisfaction guaranteed.

Send Stamp for Catalogue.

WASHBURN & CO.,

P. O. box 532. 60 JOHN STREET, N. Y. Je 14.

Amusements, Etc.

Zoological Garden.

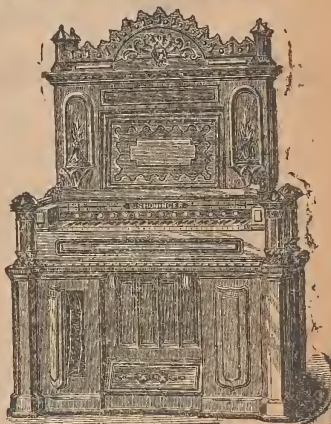
FAIRMOUNT PARK, PHILADELPHIA. Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 6 17

THE GREAT NEW YORK AQUARIUM, Broadway and 36th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Ammonites. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments. Coney Island Aquarium now open for the summer.

Highest Honors

CENTENNIAL WORLD'S AIR, 1876.

SHONINGER ORGANS.



PRONOUNCED UNANIMOUSLY AS THE Best Instruments.

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:

"The B. SHONINGER ORGAN CO.'S exhibit as the best Instruments at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Ball's producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, less liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either shrink, swell or split." THE ONLY ORGANS AWARDED THE RANK.

This Medal and Award was granted after the most severe competition of the best makers, before one of the most competent Juries ever assembled. New styles and prices just issued, which are in accordance with our rule, the BEST ORGANS for the least money.

We are prepared to appoint a few new Agents. Illustrated Catalogues mailed, postpaid, upon application to

B. SHONINGER ORGAN CO., 97 to 123 Chestnut Street, NEW HAVEN, CONN.

Bound Volumes

Forest and Stream.

SEVENTH VOLUME, NOW READY.

First Four Volumes, \$4 each, Others, \$3.50.

A complete set of the FOREST AND STREAM, seven volumes, bound harmoniously in cloth—a valuable library for the sportsman—can now be obtained on application to this office.

The perfect revolving NEW TROLLING SPOON. The best in the world. It not to be found at your fly-fishing tackle stores, these spoons will be forwarded by the manufacturer by mail. Price \$1 each. JOHN H. MANN, Syracuse, New York. Je 15

C. O. & B. ZETTLER, GUNSMITHS AND RIFLE GALLERY, 207 E. BATTERY, NEW YORK.

Guns, Rifles, Etc.

SPORTSMEN

Will find a select assortment of Guns, Rifles, Revolvers, Ammunition, And all goods appertaining thereto.

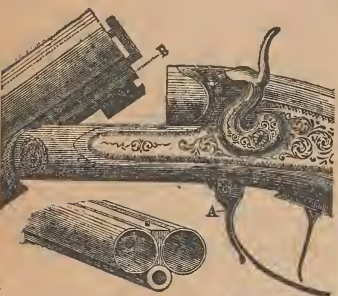
Special Attention is Inverted to Our New SMITH'S PATENT REVOLVERS,

In four sizes of 22, 32, 38 and 41-100 cal.

This new and elegant Arm combines simplicity, durability, a perfect interchange of all its parts. The most critical inspection in process of manufacture, and with its patent improvements, make it the Most Desirable Revolver in the Market.

A COMPLETE ASSORTMENT OF MAYNARD RIFLES, SHOT GUNS, ETC. Send for Circular.

FOWLER & FULTON, NO. 900 BROADWAY, N. Y. M. FOWLER, HENRY FULTON.



THREE BARRELED Breech-Loading Guns.

(TWO SHOT AND ONE RIFLE.) A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

PRICES. Three barrel, \$75 to \$250. Double barrel shot guns. Damascus barrel, \$50 to \$200. Twist barrel, \$85. SEND FOR NEW CIRCULAR. W. H. BAKER & CO., Syracuse, N. Y.

Sportsman's Depot.

(ESTABLISHED 1836.) First premium at World's Fair at New York and Centennial Exhibition.



JOHN KRIDER,

N. E. Cor. Second and Walnut Sts., Phila. GUNS, RIFLES, PISTOLS. Fishing Tackle, Rods, Reels, Lines, Hooks, Flies, Leaders, Snoods, Artificial Bait, Fly Books, Etc., Etc. Salmon, Bass and Trout Flies Made to Order. "Kriders" Celebrated Center Enamel Split and Gined Bamboo Rods. Birds' Eggs and Birds' Skins in Great Varieties—Taxidermy in all its branches. Spratt's Patent Dog Biscuits. Repairing of all kinds.

For Rifle and Shot Gun Practice.



DENNISON'S TARGETS. 25 to 1000 yds. range Target Posters and Score Cards. ALSO, Targets & Pads For testing the pattern and penetration of SHOT GUNS. Sold by Dealers in Sporting Goods.

On receipt of Ten Cents a 100-yd. Target will be sent by mail, with Circular, containing Major Henry Fulton's RULES FOR PRIVATE PRACTICE, by DENNISON & CO. 198 BROADWAY, NEW YORK. Sept 8m.

DECOYS.

M. C. WELD, Manufacturer of Decoy Ducks, Blacks and Mallard, 16 inches long; 50 cents each; nice ones, 87 MANHATTAN ST., Rochester, N. Y.

E. THOMAS, JR., GUNS, PISTOLS, SPORTING GOODS, 174 South Clark Street, Chicago, Ill.

W. & C. SCOTT & SONS.



TRIPLEX.

marked the PREMIER QUALITY

[Extract from FOREST AND STREAM, New York, December 26, 1876. Contributed by one of the Judges of Awards of Guns at the Centennial.]

"This action (The Triplex Lever Grip) combines in the highest degree strength and simplicity, and must rapidly secure the favor of all who test its merits.

COMPENSATING LUMP. Strongly recommended. It is invaluable, and should be ordered on every gun. Costs about \$10 extra. Choke-bore, medium or full. Our guns to be had of the principal dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.



Paper and Metallic Shells FOR Breech-Loading Shot Guns,

Manufactured by the

UNION METALLIC CARTRIDGE CO., BRIDGEPORT, CONN.



THE STURTEVANT SHELLS are the easiest reloaded. Do not have to uncrew the head nor use an anvil to remove the exploded caps. THE PATENT MOVABLE ANVILS, made of steel wire, will not bend or break.

THE BERDAN PATENT SHELLS, new model, with Hobbs' patent waterproof primers, never miss fire, and are highly prized by all that have used them.

PAPER SHELLS.—By repeated experiments and great outlay for improved materials, and machinery made expressly for the purpose, we can now warrant our BROWN PAPER SHELLS equal to any imported. They are safe fire, and will not burst in the gun.

Inquire of any of the dealers in sporting materials for the U. M. C. Co.'s Shells. Not sold at retail by the manufacturers.

"St. Louis Conical Base Paper Shell."



Having made important improvements in our Shell, we can safely recommend them as equal, if not superior, in quality to any Paper Shell manufactured in this country or in Europe.

Among the advantages claimed for these Shells, are: A saving of 25 per cent, in the use of powder, also the great decrease in recoil. The sizes made are No. 10—2 1/2, 2 3/4, and 3 inches; No. 12—2 1/2, 2 3/4, and 2 1/2 inches. Longer and shorter sizes made to order.

Shells will be made at extra cost. They are not mailable. Sample, 100, sent by express on receipt of \$1.15 for No. 12; \$1.20 for No. 10. Factory and office, No. 2,239 De Kalb street, St. Louis, Mo.

St. Louis Patent Shell Manufacturing Company.

Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

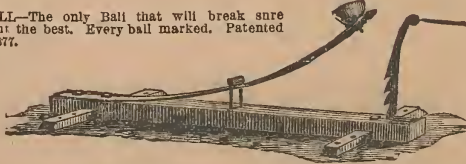
SPORTSMEN'S CLUBS AND AMATEURS.

THE PATENT ROUGH BALL—The only Ball that will break sure when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 13, 1877.

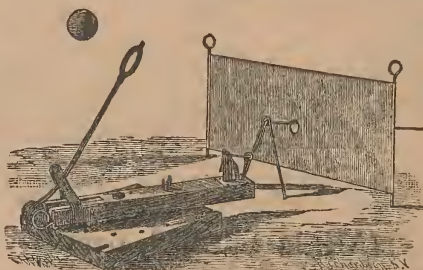
Geo. E. Hart & Co.,

NEWARK, N. J.

TRADE SUPPLIED.



HUBER & MERWIN'S CHAMPION BALL TRAP.



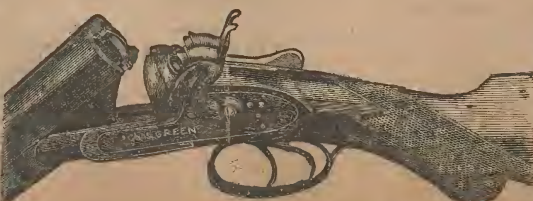
We call the attention of the fraternity to the above trap, claiming to be the ne plus ultra. It combines compactness with durability, and is arranged, by a swirl on the bed-plate, to throw a ball in any direction or at any elevation unknown to the shooter, a screen preventing his seeing the direction in which the trap is set.

The spring, as the cut will show, is made of a steel rod or wire, bent spirally at the point of attachment, thus receiving the concussion its entire length, and preventing breakage.

PRICE \$10. FOR SALE BY

BARTON & CO., Sole Agents, 337 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP, for durability and perfection of its operation, superior to them all, and take pleasure in recommending the "Champion" to sporting clubs and my friends. (Signed) IRA A. PAINE. Aug 9 1y



THE GREEN GUN has the simplest and strongest snap-action made. The proportions, the shooting qualities for penetration and pattern, are not excelled. Can bore to make any pattern ordered, from a cylinder to a full choke.

Muzzle-loaders altered to breech-loaders, with same action as new guns. Barrels bored to shoot close and strong. In the very best manner. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Aug 30 1y

Sportsmen's Goods.

W. H. HOLABIRD,

Manufacturer of

Specialties in Clothing FOR SPORTSMEN. Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent by mail post-paid, \$6. Field's New Game Bag; weighs 12 ounces. The most convenient and coolest garment ever offered to sportsmen. Can be used in place of coat; room for 50 shells and 75 snipe or quail; mail for \$2.

Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style. Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods. Jy 12 1y

NO MORE BROKEN GLASS!

Paine & Holberton's composition balls can be used in any trap. Patent applied for.

Price per 100.....\$3 This ball is perfectly harmless, and is a benefit to have rather than an injury. Many accidents have occurred from the broken glass balls, and every day it is becoming more difficult to find places to practice with the glass balls. These balls come packed 300 in a barrel.

W. HOLBERTON, Sole Agent, P. O. Box 5,102. 102 Nassau Street, N. Y. Aug 2y

SOLA HAT.



This Hat is made of waterproof duck, dead grass color, and in the same style as East India Hats; is the coolest and best yet offered to sportsmen.

Absolute Guarantee against Sunstroke. For sale by all dealers in sportsmen's goods, or sent by mail, securely packed, postage prepaid, price \$3.

Address, THOMSON & SON, 801 Broadway, New York.

P. O. box 1,016. Send stamp for illustrated catalogue of sportsmen's goods. Aug 2 1y

Yachting Suits

U. S. NAVY STANDARD BLUE FLANNEL.



Shirts, \$3.50; Pants \$2.50; Caps, \$1. Write for descriptive catalogue.

Geo. C. Henning, Washington City.

Founded July 4, 1803.



Thos. W. Sparks,

Shot & Bar Lead MANUFACTURER.

Office 121 Walnut Street, Philadelphia.

Magie Lanterns and Stereopticons.

E. & H. T. ANTHONY & CO., 591 Broadway, N. Y., opposite Metropolitan. Stereoscopes and Views; Graphoscopes, Chromos and Frames; Albums, Photographs of Celebrities, Photographic Transparencies, Convex Glass, Photographic Materials. Awarded First Premium at Vienna and Philadelphia. dce25

B. GREENWOOD,

Manufacturer of Aquaria Greenhouse and Aquarium Cement, and dealer in Fish Food, Gold Fish, Water Plants, Fish Globes, and aquaria stock of all descriptions. Canaries, Cages, Rustic Baskets, Bird Houses, Sea Shells, etc., wholesale and retail.

Nos. 11 1/2 to 13 COLLEGE PLACE, Near Murray St. New York, N. Y.

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Five Dollars a Year.  
Ten Cents a Copy.

NEW YORK, THURSDAY, SEPTEMBER 27, 1877.

Volume 9.—No. 8.  
(No. 111 Fulton St., N. Y.)

### INDIAN SUMMER.

Selected.

DEAR Maud, I hear across the morn  
The bluejay calling in the eorn.  
Oh, in my heart I tread, to-day,  
Along our old, cool, woodland way  
And hear within the shadows still  
The acorns dropping on the hill.

A hawk sails by on silent wings;  
The far, low whirl of partridge wings  
Comes a faint ripple on the air;  
Tis restless silence everywhere;  
So still, that from the maple's crown  
I hear the red leaves eddying down.

A gleam of silver far away  
The river lies asleep to-day;  
The single shallow lolling by  
Seems poised between the wave and sky  
All haste is rounded into calm,  
And earth and sky are swathed in balm.

### South American Reminiscences.

Second Paper.

THE beautiful cit of San Sebastian is better known as "Rio," or Rio de Janeiro, obtaining the latter name from the beautiful bay on which it is situated; this, in turn, received its appellation from De Louza, who entered it for the first time on New Year's Day, 1531. Erroneously supposing the beautiful sheet of water in which he had anchored to be the debouchment of a river, he bestowed upon it the name which it now bears: "River of January." The aboriginal title of the estuary of the Atlantic is *Nitherhoi*—Concealed Water—which is so appropriate that it seems almost a sacrilege to have allowed the former to usurp it.

Besides its extreme beauty of location, Rio possesses a climate incomparable for salubrity. It is unsurpassed; even in the hottest months the thermometer rarely rises above 90° Fh., I am told, and it is tempered by the cool sea breeze that sets in at 11 A. M., followed by the delicious zephyrs that fan the earth from early night-fall until dawn. Neither does it present any resemblance to our northern cities with their even sites; there are no compact brick walls, dingy roofs and tall chimneys, but it is diversified by hills/ of irregular but picturesque shape, which shoot up in different directions, leaving between them flat intervals of greater or less extent. Along their bases and up their sides stand rows of buildings whose whitened walls and green-tiled roofs are in happy contrast with the deep green foliage that always surrounds and frequently embowers them.

The morning following our advent upon the bosom of the beautiful *Nitherhoi*, as many as can obtain the desired permission crowd into the stern sheets of the cutter for the shore. At the landing we are surprised at the progressiveness of our South American brethren, for we land upon a quay of hevn granite, built to endure for ages, which effectually takes the conceit from the New Yorker, who would fain believe that Gotham embodies all things desirable; we can but think of the meanness and squalor of our own wharves, and our eyes become opened to the disgust so often expressed by foreigners for its marine environment. Here our ears are saluted by a confusion of tongues that certainly rivals if it does not surpass the disturbance supposed to have been made one morning 4,174 years—I like to be exact, you see—pre-rious in Assyria. Portuguese, German, French and English all salute our ears, spoken in the highest possible key, with accompaniments of choice oaths and intermingling of, I should judge, a dozen or more African direct

As we look around the Largo de Paço we see not only a marked diversity of costumes but of race as well, though the African seems to predominate. Numbers of them are grouped around the fountain for the purpose of obtaining the water flowing from a dozen pipes, which they bear off in tubs or barrels upon their heads; for the residences of Rio are not supplied—except, it may be, in rare instances—with water from the mains.

Others sit upon the benches beside their baskets and stands of merchandise, while around them stand a chattering group of idle slaves, who seem to have no thought or care but for

the moment. Moving to and fro are numerous blacks, their heads burdened with various pieces of merchandise, such as at home would demand a dray, and whose weight seems to preclude the possibility of their being otherwise moved. A quartette of stalwart fellows move off at a trot with a grand piano, while a train of nearly naked coffee-carriers rush by in full song with sacks of the succulent berry which would cause a stalwart man to stagger under if borne upon the back or in the arms. The habit of bearing burdens upon the head appears to have strengthened the muscles of the neck and shoulders, and imparted the erect grace and dignity of attitude and movement for which the Mina blacks are so celebrated. Here, too, we see the old palace which gives to the square its name, exhibiting a long forgotten and heavy style of architecture, with balustraded windows and stuccoed walls. Though used as a residence for the viceroys in the days of Portuguese supremacy, it is now abandoned to more public uses, being occupied by various public offices. Close by is the Royal Chapel, and adjoining, the Chapel of "Our Lady of Mount Carmel," now metamorphosed into a Cathedral.

One of the finest streets of the city is the Rua Direita opening out of the Largo de Paço. It is wide and well paved with square stone blocks, said to have been brought from Great Britain. With its busy throngs, the numerous omnibuses and carriages, negro water-carriers and express wagons, the Rua Direita presents as lively a scene—though more diverse in character, as our own Broadway. It is in marked contrast to many of the streets, which are mere thoroughfares, the carriage-way being but six feet in width, with the gutter in the middle and full two feet below the curb, thus precluding the possibility of two vehicles passing each other. To the stranger this difficulty seems insurmountable, but it does not present so great an interference to travel as imagined. Vehicles are allowed to traverse these streets only in one direction, which is indicated on the corners with great distinctness under the name of the street itself, obliging the driver of a vehicle, if he desires to retrace his steps, to drive around a square. A violation of the direction would subject the offender to a heavy penalty, as the police regulations are very strict and rigidly enforced. These guardians of the public are soldiers of the National Guard and under military subordination, hence Rio enjoys a greater immunity from burglaries, incendiarism and street brawls than any other city of the Western hemisphere. Here the policeman is not an ornamental appendage, but a useful officer. It is certainly odd to northern eyes to see a National Guardsman in full uniform, with sabre and pistols, standing on the street corners or superintending the proceedings of a crowd of jabbering blacks congregated around a fountain, and to know that he is enacting the *role* of a policeman.

The Rua de Ouvidor, just mentioned, is probably the best known to foreigners of all the streets in Rio, for here the jewelry trade centres, and here are the shops where are sold the most wonderful trinkets, bracelets, necklaces, flowers made from sea shells, and large fish scales that rival pearls in lustre; flowers made from the wings of insects, and pins, earrings and studs that are but the gorgeous beetles, common to the Empire, deftly set in gold. A pair of sleeve buttons I purchased were green beetles, whose backs presented a metallic lustre, and feeling so much so that I would not believe in their genuineness until the obliging jeweler removed one from its setting, showing the legs carefully folded and glued underneath.

Here, too, are displayed the wonderful insect and feather flowers which have a world wide celebrity, and whose imitation of natural growths are so marvelously faithful and correct as to defy inspection. The colors of the feathers employed are not natural, but are said to be produced by a device of the Indians, who pluck out the feathers of live birds and infuse into the various vacancies colors which are reproduced in the plumage when they grow again. The bouquets made from the throats and breasts of humming-birds, of which there are numerous varieties in Brazil, present many variations of color, are unsurpassed in their splendor. The humming-bird, known to naturalists as the *Trochilus polytmus*, is called by Mr. Gosse "the gem of American ornithology," and it well deserves the title, for the eye is dazzled with the resplendent golden green, purplish black, deep blue gloss and gorgeous emerald green that it exhibits as it hovers over the flower, seeking its food.

The omnibus is an "institution" in Brazil, and although made after the model of those of North American cities, the majority of these vehicles go by the name of gondolas. Why a title that seems to our ears inseparable from Venetian canals and Adriatic scenery should be applied to a "bus," seemed a mystery. We were informed that the Government having granted a monopoly to an omnibus company, which became obnoxious, followed with a concession to a "gondola company," thus plastering over the Gordian knot rather than cutting, and so effectually as to almost obliterate it.

Every bus has painted upon the side in large characters "14 pessoas," which is the number they can carry comfortably. In the Brazilian omnibus or gondola there is never "room for one more," for when the number is complete, the conductor bangs the door, shouting "*vamos embora*"—equal in the Yankee vernacular to "git," the driver flourishes his whip, the four mules attached to the vehicle make a plunge, the gondola gives a lurch, and away you go at a keen gallop, skipping over rocks and gutters at a regular breakneck speed. It seems a wonder that some one is not frequently killed or maimed by being run over, but we could not hear of a single instance of such a mishap. The darkies do not scurry out of the way as the vehicle approaches until the last moment, and it seems a miracle that they should escape, particularly when their heads are laden with heavy water jars. A gondola ride is exciting, and as we became used to it, we wagered cigars on how near we would come to the next darky without touching him. Another peculiar feature of Rio is that no one enters or leaves a public vehicle without removing his hat and saluting the inmates. How the Gothamites or those self-complacent spokes of the "Hub" would stare at such a bit of gentility occurring in their own cities. Then, too, if a vehicle become stuck in some slough, our Brazilian brethren do not jump out to stand around and encourage Jehu with expletives regarding the duties of the city fathers, or with valuable hints as to what might or should have been done. No, they keep their seats, take a pinch of snuff all round, settle back as if reaching their journey's end was the least of all their cares and could comfortably be dispensed with for several years to come, and thus complacently await the end of the bargain which the driver is making with the assembled blacks. After the assurance of sundry pieces of the coin of the realm, or promise of something *para matar o bicho*—in order to kill the beast, the darkies place their shoulders to the wheel, and the four mules with recovered temper gallop on.

It is astonishing what an amount of Spiritus Frumenti and kindred beverages it takes to kill a "beast;" the typical nine lives ascribed to the feline race seems as nothing to the frequent resuscitations this animal undergoes. The only thing that corresponds in our country is "that pain in the stomach," that can only be assuaged with three fingers of "suthin' straight," and even then the remedy seems to lack in effect unless others assist in the imbibition; then, too, the recurrence of the colic seems to be as frequent as the recurrence of vital force to the "beast."

On many streets the first floors of buildings are devoted to trade, while the upper ones are occupied by the merchants as dwellings. This was once the universal custom, but of late it has been growing in disfavor, and now tradesmen and clerks form a large proportion of the inhabitants of the suburban towns of Praia, Grande or *Nitherhoi*, or San Domingo, across the bay, at Botafogo to the south of the city, and Eugenio Velho and San Christover to the west. At evening the full omnibuses and crowded steamers present an animated spectacle only equaled by the return of the same crowd in the morning. In general, the residences with the profuse foliage surrounding, possess all the elements of beauty and luxury, but now and then one sees a building of the olden time, with its heavy fortress-like walls of cement and stone, hipped roof and dormers, and the front of the first story occupied by an enormous door or archway to allow the passage of the family vehicle, which is here housed; and here, too, are the stables, while the apartments above are reserved for domestic uses. The only entrance is by this same carriage way. These old-fashioned houses are mostly two stories, some three, no two of which are precisely alike. They have not what would be called a handsome front, nor anything approaching to one; nor could there be, since all entrances are on the pavement level, and in olden times no porticoes nor steps were allowed. The walls are of rough stone like our foundation walls at

home, stuccoed with lime and loam which makes them appear as if whitewashed. Some of the more aristocratic of these old dwellings have their stucco colored in panels of light blue and pink, and gilt scrolls and rosettes, much the worse through lapse of time, are seen running below the cornice. Such buildings, too, are commonly provided with balconies at the upper windows, and in rare instances they may be seen extending across the entire front of the house, and inclosed with lattice work. In the old days the females were confined within these *gelosias* as in Moslem countries, where females are not permitted to go out, except under strong guard, nor to show themselves at the windows. The tiled roofs are more or less concave, the result of large cornices projecting out of the line of the general pitch. This gives a Moorish cut to the building, the more marked when, as is often the case, birds or other figures terminate the overhanging angles. The ribbed appearance of the tiles, their waving edges at the eaves, and the contrast of their color with that of the walls, convey a pleasing effect to the eye of the stranger.

Take a view of a North American city from an elevation, and it appears as if made up of chimneys, which appear as thick as forest trees, but in Rio they are few and far between and only seen upon more modern villas, and even then seem to be confined to the suburbs. Another peculiarity is the disposal of rain water, which instead of being brought down, as with us, to the pavement, shoots out of spouts at the eaves. This is the universal practice, the water being poured into the middle of the street. Smaller pipes project from the bottom of the balconies, which are as numerous as the windows, and discharge upon the walks, causing the foot passenger in wet weather to perform numerous gymnastic feats and constant dodging to and fro to avoid the miniature cataracts. What a comfort this is to one passing through the more narrow thoroughfares, may be readily imagined. Doors are seldom provided with either knockers or bells, the caller rapping at the entrance with his cane, or draws the end smartly across the slats that commonly fill the upper panel to admit the free circulation of air. When, as before noted, a family resides upon the upper floors, the visitor, on entering the passage below, announces his presence by clapping his hands, when a servant instantly appears on the landing above.

Every house possesses a piano, and the Brazilians of both sexes are usually masterly performers. We were often stopped in our rambles by hearing the voice of some lady whose execution on the piano would not have disgraced a Rubenstein, and whose voice equaled in power, compass and purity the Nilsson. Many of the Brazilian ladies excel in beauty when young, but as they verge upon middle life develop too much *emboupoint* for the critical American eye. Before a Brazilian lady becomes thus developed she can walk, and even obesity does not develop the awkward gait familiar to our eyes. A French woman can dance, an English woman ride, and American women can do both; but none but a Spanish or Portuguese can walk. We Americans pride ourselves on the beauty of our women: we say they combine all the graces of other nations; but be that as it may, they cannot walk.

The great mass of the laboring classes subsist mainly on flour made from the root of Manihot or Jatropha plant. This bread root yields two forms of flour, and a liquor called "Tucupi," or "Aguardiente de beiju." There are four species: first, the *Manihot utilissima*, or Manihot proper, of which there are many varieties—among them the *matuca*, the lowest, being only four feet high, but producing the largest and best roots—Itoque, Tambaqui, ariuan and mercuria. Second, *Ayri (Maripi)* or sweet mandioca, called "Yuca Duice" on the Maranon, possessing oblong, juicy roots, which become sweet after they are gathered. The chicha made from it is called "Masato." Third, *Macachera*, or *Macasheira*, (Yuca of Peru), whose root is used as a potato, roasted or boiled. Fourth, *Manicueira*, a sweet Manihot, different from *Ayri*, having a long, large root. Mandioca, or Manihot, will produce in six months after planting without cultivation. The root is deprived of its poisonous juice in a curious strainer. A long tube of woven fibre, containing the macerated root, is hung up, with a stone at the lower end, by which means the diameter is diminished, and the juice squeezed out.

The Farina is the only farinaceous production of Brazil. The mandioca or cassava (*manihot utilissima*) from which it is made, is supposed to be indigenous, though it is not found wild. It does not grow at a higher altitude than 2,000 feet, and life and death are blended in the same plant, yet every part is useful. The cattle eat the leaves and stalks, while the roots are ground into pulp, which, when pressed and baked, form farina, the bread of all classes. The juice is deadly poison; thirty-five drops were sufficient to kill, in six minutes, a negro; convicted of murder; but it deposits a fine sediment of pure starch that is the well-known tapioca, and the juice when fermented and boiled, forms favorite drink. The Manihot flour is eaten by the lower classes without preparation, and they exhibit no small amount of dexterity in their mode of eating, which is to grab a handful and throw at the open mouth. One of our gentlemen essayed the feat, much to the amusement of his comrades, for the effort to dispose of the farina *à la Brésilienne*, powdered not only his own face, but a fair share found its way down between his collar and neck, beside impairing the spruceness of his uniform. To our shouts he responded, "Laugh away, gentlemen, try it yourselves, and you won't find so much fun. I only tried for the purpose of giving you some sport, for since you have eaten lizards you have all had a bilious look about the gills." This was a rub on the whole party, for the day before we had been the guests of an English naval officer, who gave a dinner out at Bennett's in honor of his birth-day, and among other dishes was a salad of iguana, of which we all partook bountifully without knowing that it was one of the reptiles of the lizard variety, which we had often seen hawked through the streets. When the nature of the dish became known it took several bumpers of *Obsequio* to remove the effect, much to the amusement of the Brazilian officers, who were at the table, and our host who was no novice in Brazilian dishes and customs. To be just, I must say the dish was excellent until its nature was revealed, partaking so much of the flavor of chicken as to lead us to suppose it to be of that fowl.

Bennett's! How many memories cluster around the name! Every American or Englishman considers it a duty to visit here. Eight miles from the Praça de Commercio, by the street of Eugenio Velho, bordered with beautiful villas, each surrounded with groves of orange trees, palms and manguiaras, up the "Tijuca" getting a glimpse of the Bay of Nieheroi and its surroundings, down the opposite slope, and you are at Bennett's.

Mr. Bennett is an Englishman, long resident in Brazil. Imagine a rosy, benevolent Saxon face, crowned with snow white hair, a rotund and portly presence, and a general air of

gentleness, authority and roast beef, and you have a faint idea of Scanhor Bennett, the mountain patriarch, who has rescued from a wilderness a mountain dell through which flows a silvery brook, and established a hotel which is sought by all lovers of the beautiful and those who would escape from the heat, dust and turmoil of the busy city. When I think of Bennett's and the kindly host, the grasp of whose hand is a complete welcome of itself, it causes a train of recollections of beautiful mountain scenery, sparkling cascades, tropical verdure, azure blue sky, delicious breezes, exhilarating rides and last, but not least, the comical combats between a wild duck reduced to domestication and the attendant negroes whose bare legs it nips at every opportunity.

One of the celebrities of Rio is the aqueduct that supplies the city with water, and is a rival of the famous Alcantara of Lisbon, after which it was designed. It is a vaulted canal of mason work, sometimes elevated on lofty arches far above the earth, and again disappearing beneath the surface, always pursuing the same gradual descent that compels a gentle flow. At stated distances are openings that provide for the proper aeration of the pure and limpid stream it brings from the basins on the summit of the Corcovado. The water works are of nature's own handiwork, man only supplying the receiving basins and the conduit. It is obtained by the condensation of the moisture of the surrounding atmosphere by the cool trees which crown the summit of the mountain, and from whose broad leaves the aqueous fluid flows into the artificial lakes provided for its reception. What is Croton or Cochuitate compared to this? Even the tunnel out into Lake Michigan that supplies the "Garden City" is inferior, and hardly worthy of mention in the same breath.

One morning while enjoying a visit from my *confrère*, the surgeon of the Z—, which had arrived but the day before from the "Plata," and anchored a cable's length away,—I was surprised by a visit from Dr. Paulo C—, whose acquaintance I had made at the dinner at Bennett's. Introducing him to my fellow medico, he invited us both to visit the hospitals with him the following day.

Under the *chaperone* of this accomplished gentleman we the next morning boarded the little *Constancia*, which steamed swiftly around the harbor from ship to steamer—passing by the men-of-war only—receiving those who demanded hospital attendance, after which we headed up the little bay of Jurujuba on the southern shore of which stands the hospital of the same name, in the midst of perpetual verdure, and where it receives the full benefit of the cool breezes of the ocean and perfume-laden zephyrs of the land uncontaminated with the impurities incident to the city.

The interior was clean and neat, and all that human ingenuity can devise for the unfortunates who filled the wards seemed to be put in force. Here were patients from almost every clime and of varied nationalities, whose wants were carefully administered to by attendant physicians and careful nurses. The latter were far better than usually found in like institutions, and I am told are compelled to pass a rigid examination as to qualifications; in consequence of which these offices are filled by intelligent persons, irrespective of political bias of favoritism, and furnish marked contrast to the awkward beings that fill similar positions in our metropolitan charities. Another marked difference was in the attendance of the students from the Imperial Academy of Medicine, whose behavior, attention and quietness I have never seen equaled, or even approached by any similar body. Doubtless this is largely due to the fact that the Brazilian is not so boisterous or demonstrative as the Yankee, but the fact that an educational qualification is demanded and rigidly enforced upon the applicant who desires to enter upon the study of medicine must have weight, the coarser elements being largely rejected. The inspection of the hospital was truly a treat, for the surroundings are unequalled, and the clean couches, quiet and respectful nurses, all combine to heighten the pleasing contrast when the poor mariner is transferred from the dark, dirty, stifling, foul-smelling "fo'c'sle" of a merchant ship to the airy halls of the *Jurujuba*.

On our return we were landed at the "Misericórdia," located at the southern side of the city upon the shores of the bay, and under the brow of Castillo Hill. Although not so cleanly or perfect in its appointments as the *Jurujuba*, it is nevertheless a grand charity that it would be well for our own cities to emulate. The best of assistance is here rendered to all, male or female, white or black, at any hour of the day or night; none being refused, even the most wretched. No recommendation is needed for admittance. Its doors are open to all the suffering.

The records of this charity show that eight thousand patients are admitted annually to its wards, with a death rate of nearly 12 per cent. Although this seems like an enormous percentage, a glance at the beds, and an examination of the records for causes show us that it is extremely light, as a large share of the applicants are afflicted with diseases of a malignant type, or, when admitted, are in the advanced stages of disease that can scarcely admit of a favorable prognosis.

Another extensive hospital visited was that of the Brotherhood of San Francisco de Paula. This is located in an airy position, and built in the most substantial manner. Being a private hospital, the inmates are of an entirely different character to those previously visited, and in consequence is more elegant and has greater comforts. To each patient is assigned an alcove, where he may receive any of the resident physicians who may be preferred to the regular attendants. Parlors are provided for the convalescent, on whose tables are to be found the journals of the city; and large airy corridors are used as promenades for those whose condition will permit, and over which they can view some of the most elegant scenery of the metropolis.

The day following these visits, we were again the guests of the Doctor, who took us in his carriage out to the Hospital dos Lazares, several miles from the city. This, as its name indicates, is devoted to those afflicted with incurable skin diseases of a leprosy type, of which that termed *Elephantiasis graveorum* seems predominant in and about Rio. It is not only common, but extremely prevalent among the lower classes, particularly those of mixed blood, and it was not uncommon to see the sufferers plying the vocation of mendicants upon the streets, exposing the enormously swollen and deformed limbs, which give rise to the term elephant-like. It is rare that such solicitation of alms is refused, and the bestower hurries by in needless fear of contagion.

The Doctor related an incident which transpired in the hospital under the observation of himself and many colleagues, besides several of the laity and priesthood. A medical mountebank claimed to have discovered that the virus of the *Crotalus horridus*—rattlesnake—insinuated into the circulatory system of a leprosy would establish a cure, and so persistent was he in promulgating this idea both by word of mouth and through the public press, that the experiment was decided upon, and received Imperial sanction. But the question was,

"who would bell the cat." Now the idea was not a new one, being almost as old as the deluge, and like that famous introduction of hydropathy, liable to kill more than it cured. The ancient Greeks had held the same idea, but it, so far as known, lacked confirmation or negation by experiment. At last a leprosy of some fifty years of age, and who had been afflicted half a score of years, offered himself as a sacrifice, doubtless feeling that death had no pang greater than the mental and bodily sufferings entailed by his malady. The serpent being procured, the patient thrust his hand into the cage in which it was confined, but it shrank from the outstretched member, and when cornered would only lick the hand, refusing to strike. At last the patient grasped the reptile, squeezing it forcibly, when its poisonous fangs were imbedded at the base of the finger. So quickly was it done, and so little sensation was there in the diseased member that the victim was unconscious of the act until his attention was called to the tiny drops of blood that marked the insertion of the serpent's fangs.

Slowly the toxic effects of the poison made themselves manifest, though seemingly retarded by the disease; before twenty-four hours had elapsed the relief predicted by the charlatan had been received, the victim was—dead.

## INTRODUCTION AND SUCCESSION OF VERTEBRATE LIFE IN AMERICA.\*

By O. C. MARSH.

PRESIDENT OF THE BIOLOGICAL SECTION OF THE AMERICAN ASSOCIATION.

FOURTH PAPER.

THE Ungulates are the most abundant Mammals in the Tertiary, and the most important, since they include a great variety of types, some of which we can trace through their various changes down to the modified forms that represent them to day. Of the various divisions in this comprehensive group, the Perissodactyle, or odd-toed Ungulates, are evidently the oldest, and throughout the Eocene are the prevailing forms. Although all of the Perissodactyles of the earlier Tertiary are more or less generalized, they are still quite distinct from the Artiodactyles, even at the base of the Eocene. One family, however, the *Coryphodontidae*, which is well represented at this horizon, both in America and Europe, although essentially *Perissodactyle*, possesses some characters which point to a primitive Ungulate type from which the present orders have been evolved. Among these characters are the diminutive brain, which in size and form approaches that of the Reptiles, and also the five-toed feet from which all the various forms of the mammalian foot have been derived. Of this family, only a single genus, *Coryphodon* (*Balmodon*), is known, but there were several distinct species. They were the largest mammals of the lower Eocene, some exceeding in size the existing Tapirs.

In the middle Eocene, West of the Rocky Mountains, a remarkable group of ungulates makes its appearance. These animals nearly equalled the Elephant in size, but had shorter limbs. The skull was armed with two or three pairs of horns, and with enormous canine tusks. The brain was proportionally smaller than in any other land mammal. The feet had five toes, and resembled in their general structure those of *Coryphodon*, thus indicating some affinity with that genus. These mammals resemble in some respects the Perissodactyles, and in others the Proboscideans, yet differ so widely from any known Ungulates, recent or fossil, that they must be regarded as forming a distinct order, the *Diuocerata*. Only three genera are known, *Diuoceras*, *Tiuoceras* and *Uintatherium*, but quite a number of species have been described. During the later part of the middle Eocene, these animals were very abundant for a short time, and then became extinct, leaving apparently no successors, unless possibly we have in the Proboscideans their much modified descendants. Their genetic connection with the *Coryphodonts* is much more probable, in view of what we now know of the two groups.

Besides these peculiar Mammals, which are extinct, and mainly of interest to the Biologist, there were others in the early Tertiary which remind us of those at present living around us. When a student in Germany some twelve years ago, I heard a world-renowned Professor of Zoology gravely inform his pupils that the Horse was a gift of the Old World to the New, and was entirely unknown in America until introduced by the Spaniards. After the lecture, I asked him whether no earlier remains of horses had been found on this Continent, and was told in reply that the reports to that effect were too unsatisfactory to be presented as facts in science. This remark led me, on my return, to examine the subject myself, and I have since unearthed, with my own hands, not less than thirty distinct species of the horse tribe, in the Tertiary deposits of the West alone; and it is now, I think, generally admitted that America is, after all, the true home of the Horse.

I can offer you no better illustration than this of the advance vertebrate paleontology has made during the last decade, or of the important contributions to this progress which our Rocky Mountain region has supplied.

The oldest representative of the horse, at present known, is the diminutive *Eohippus* from the lower Eocene. Several species have been found, all about the size of a fox. Like most of the early mammals, these Ungulates had forty-four teeth, the molars with short crowns, and quite distinct in form from the premolars. The ulna and the humerus were entire and distinct, and there were four well developed toes and a rudiment of another on the fore feet, and three toes behind. In the structure of the feet, and in the teeth, the *Eohippus* indicates unmistakably that the direct ancestral line to the modern horse has already separated from the other Perissodactyles. In the next higher division of the Eocene, another genus (*Orohippus*) makes its appearance, replacing *Eohippus*, and showing a greater, although still distant, resemblance to the Equine type. The rudimentary first digit of the fore foot has disappeared, and the last pre-molar has gone over to the molar series. *Orohippus* was but little larger than *Eohippus*, and in most other respects very similar. Several species have been found in the same hori-

\* Delivered before the American Association for the Advancement of Science, at Nashville, Tenn., Aug 31, 1877.

zon with *Dinoceras*, and others lived during the upper Eocene with *Diplocodon*, but none later.

Near the base of the Miocene, in the Brontotherium beds, we find a third closely allied genus, *Mesohippus*, which is about as large as a sheep, and one stage nearer the horse. There are only three toes and a rudimentary splint bone on the fore feet, and three toes behind. Two of the premolar teeth are quite like the molars. The ulna is no longer distinct, or the fibula entire, and other characters show clearly that the transition is advancing. In the upper Miocene, *Mesohippus* is not found, but in its place a fourth form, *Miohippus*, continues the line. This genus is near the *Anchitherium* of Europe, but presents several important differences. The three toes in each foot are more nearly of a size, and a rudiment of the fifth metacarpal bone is retained. All the known species of this genus are larger than those of *Mesohippus*, and none pass above the Miocene.

The genus *Protolhippus* of the lower Pliocene, is yet more equine, and in some of its species equaled the ass in size. There are still three toes on each foot, but only the middle one, corresponding to the single toe of the horse, comes to the ground. This genus resembles most nearly the *Hipparion* of Europe. In the Pliocene, we have the last stage of the series before reaching the horse, in the genus *Pliohippus*, which has lost the small hooflets, and in other respects is very equine. Only in the upper Pliocene, does the true *Equus* appear, and complete the genealogy of the Horse, which in the Post-Tertiary roamed over the whole of North and South America, and soon after became extinct. This occurred long before the discovery of the Continent by Europeans, and no satisfactory reason for the extinction has yet been given. Besides the characters I have mentioned, there are many others, in the skeleton, skull, teeth, and brain of the forty or more intermediate species, which show that the transition from the Eocene *Eohippus* to the modern *Equus*, has taken place in the order indicated, and I believe the specimens now at New Haven will demonstrate the fact to any anatomist. They certainly carried prompt conviction to the first of anatomists, who was the honored guest of the Association a year ago, whose genius had already indicated the later genealogy of the horse in Europe, and whose own researches so well qualified him to appreciate the evidence here laid before him. Did time permit, I might give you at least a probable explanation of this marvelous change, but justice to the comrades of the horse in his long struggle for existence demands that some notice of their efforts should be placed on record.

Besides the Horse and his congeners, the only existing Perissodactyles are the Rhinoceros and the Tapir. The last is the oldest type, but the Rhinoceros had near allies throughout the Tertiary; and, in view of the continuity of the equine line, it is well worth while to attempt to trace his pedigree. At the bottom of the Eocene, in our Western lake-basins, the tapirid genus *Helaeletes* is found, represented by numerous small mammals hardly larger than the diminutive horses of that day. In the following epoch of the Eocene, the closely allied *Hyracys* was one of the most abundant animals. This genus was nearly related to the *Lophodon* of Europe, and in its teeth and skeleton strongly resembled the living Tapir; whose ancestry, to this point, seems to coincide with that of the Rhinoceros we are considering. Strangely enough, the Rhinoceros line, before it becomes distinct, separates into two branches. In the upper part of the Dinoceras beds, we have the genus *Colono-ceras*, which is really a *Hyracys* with a transverse pair of very rudimentary horn-cores on the nasal bones. In the lower Miocene west of the Rocky Mountains, this line seems to pass on through the genus *Diceratherium*, and in the higher Miocene this genus is well represented. Some of the species nearly equaled in size the existing Rhinoceros, which *Diceratherium* strongly resembled. The main difference between them is a most interesting one. The rudimentary horn-cores on the nasals, seen in *Colono-ceras*, are in *Diceratherium* developed into strong bony supports for horns, which were placed transversely, as in the Ruminants, and not on the median line, as in all existing forms of Rhinoceros. In the Pliocene of the Pacific Coast, a large Rhinoceros has been discovered, which may be a descendant of *Diceratherium*, but as the nasal bones have not been found, we must wait for further evidence on this point. Returning now to the other branch of the Rhinoceros group, which left their remains mainly East of the Rocky Mountains, we find that all the known forms are hornless. The upper Eocene genus *Amyndodon* is the oldest known Rhinoceros, and by far the most generalized of the family. The premolars are all unlike the molars, the four canines are of large size, but the inner incisor in each jaw is lost in the fully adult animal. The nasals were without horns. There were four toes in front, and three behind. The genus *Hyracodon*, of the Miocene, which is essentially a Rhinoceros, has a full set of incisor and canine teeth; and the molars are so nearly like those of its predecessor *Hyracys*, that no one will question the transformation of the older into the newer type. *Hyracodon*, however, appears to be off the true line, for it has but three toes in front. In the higher Miocene beds, and possibly with *Hyracodon*, occurs a larger Rhinoceros, which has been referred to the genus *Aceratherium*. This form has lost the canine and one incisor above, and two incisors below. In the Pliocene are several species closely related, and of large size. Above the Pliocene in America, no vestiges of the Rhinoceros have been found, and our American forms doubtless became extinct at the close of this period.

The Tapir is clearly an old American type, and we have seen that, in the Eocene, the genera *Helaeletes* and *Hyracys* were so strongly tapirid in their principal characters, that the main line of descent probably passed through them. It is remarkable that the Miocene of the West, so greatly developed as it is on both sides of the Rocky Mountains, should have yielded but a few fragments of tapirid mammals, and the same is true of the Pliocene of that region. In the Miocene of the Atlantic Coast, too, only a few imperfect specimens have been found. These forms all apparently belong to the genus *Tapirus*, although most of them have been referred to *Lophodon*, a lower Eocene type. In the Post-Tertiary, a true *Tapirus* was abundant, and its remains have been found in various parts of North America. The line of descent, although indistinct through the middle and upper Tertiary, was doubtless continuous in America, and several species exist at present, from Mexico southward. It is worthy of notice that the species North of the Isthmus of Panama appear all to be generically distinct from those of South America.

In addition to these three Perissodactyle types which, as the fittest, have alone survived, and whose lineage I have endeavored to trace, there were many others in early Tertiary times. Some of these disappeared with the close of the Eocene, while others continued, and assumed strange specialized shapes in the Miocene, before their decline and extinction. One series of the latter deserves especial mention, as it includes one of the most interesting families of our extinct animals. Among the large mammals in the lower Eocene is *Limnocybus*, a true

Perissodactyle, but only known here from fragments of the skeleton. In the next higher beds, this genus is well represented, and with it is found a nearly allied form, *Palaeoscyops*. In the upper Eocene, both have left the field, and the genus *Diplocodon*, a very near relative, holds the supremacy. The line seems clear through these three genera, but on crossing the break into the Miocene, we have, apparently, as next of kin, the huge *Brontotheria*. These strange beasts show in their dentition and some other characters the same transition steps beyond *Diplocodon*, which that genus had made beyond *Palaeoscyops*. The *Brontotheria* were nearly as large as the Elephant, but had much shorter limbs. The skull was elongated, and had a transverse pair of large horn-cores on the maxillaries, in front of the orbits, like the middle pair in *Dinoceras*. There were four toes in front, and three behind, and the feet were similar to those of the Rhinoceros. There are four genera in this group, *Brontotherium*; *Diconodon*; *Menodus* (*Titanotherium*); and *Megaceros*, which have been found only in the lowest Miocene, east of the Rocky Mountains.

In the higher Miocene beds of Oregon, an allied genus, *Chalicotherium*, makes its appearance. It is one stage further on in the transition, and perhaps a descendant of the *Brontotheria*; but here, so far as now known, the line disappears.

It is a suggestive fact, that this genus has now been found in Western America, China, India, Greece, Germany and France, indicating thus, as I believe, the path by which many of our ancient mammals helped to people the so-called Old World.

(To be continued.)

SPLIT BAMBOO RODS.

To Our Customers and the Public: In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

—Adv.

Fish Culture.

FISH CULTURE IN MINNESOTA.

SINCE the \$5,000 appropriation by the Legislature, a step forward has been taken in this State. A most judicious selection of capable men was made in choosing Dr. Robt. O. Sweeney and Wm. Golcher, Esq., as Fish Commissioners. The first named gentleman is a scientist of no mean attainments, and a close student in all departments of natural history. Mr. Golcher is well known in England and America as a gun maker whose mechanical abilities have been inherited through many generations. But his proclivities are also fishwise, and having retired from a life of active and profitable business, he enters into his new labors with ardor. Just at present they are utilizing a portion of the State appropriation in constructing hatching houses and ponds near St. Paul. A few days ago Mr. Hallock, the editor of this journal, who was then in Minnesota, took occasion to inspect the works in their rudimentary state, and expressed himself gratified with the choice of location and the plan of the works, in which much progress has already been made. The water is of a temperature of 50 degrees, issuing in dozens of little rivulets from the base of a bluff of sand at least 70 feet high, pure and thoroughly filtered. These little rivulets are gathered into a stone reservoir already constructed, and their aggregate makes a head of water sufficient for mill purposes. The works occupy a terrace at the foot of the bluff, and the natural formation of the adjacent ground makes the work of constructing ponds and races very easy and inexpensive. The outlook is over a broad meadow flanked by wooded hills, while the contiguous country is broken and rocky. The commissioners are now laying out drives through the premises so as to make the hatching house grounds attractive as a park, the principal features of which will be a defile, a cave, and some curious rocks shaped like stools overhanging the road.

The hatching house is forty feet square; the overseer's house 40x18, two stories, rustic, with verandas, etc., both nearly completed. Altogether the establishment is one of the most romantic we have seen, and promises to blossom out in a useful and satisfactory work. Minnesota is a natural fish producing country, but its trout, bass and pike are disappearing rapidly, and need to be replenished at once. To do this we look toward the hatching house and the competent State Fish Commissioners.

MASSACHUSETTS.—The Chairman of the Lynn Board of Fish Commissioners has received a communication from the Fish Commissioners of the town of Wakefield stating that the stocking of Saugus River with alewives was now an assured success, and that the young fish were at present rapidly working down from the pond in Wakefield to the sea.

NEW YORK.—Catskill is to have a fish hatchery. The necessary grounds and springs have been leased of John Goodwin, and a house 20x25 ft. is to be erected.

SALMON IN THE RICHELIEU.—*Habifax, Nova Scotia, Aug. 27.*—Editor Forest and Stream.—I subjoin copy of a letter just received from the Fisheries Department, at Ottawa, Canada, which will be interesting, as showing the amount of success in the direction of the labors of the U. S. Fish Commission in stocking Lake Champlain and its tributaries with salmon.

Yours truly,  
SPENCER F. BAIRD,  
Canada, Ottawa, Aug. 22.—Dear Sir—It having come to the knowledge of this department that salmon had been

caught in the Richelieu River, I immediately instituted inquiries into the matter, and succeeded in eliciting the following information: Twelve young salmon were caught this summer in set traps opposite the town of St. John. Eight of these were liberated alive, the other four were wounded. They weighed about a half a pound each. At the same time and at the same place a young salmon two years old was caught in a seine and liberated. No salmon were seen in the neighborhood after the 18th of July. Trusting the above might prove of interest, I have directed our fishery officer to keep a sharp lookout and let us know any further information they might ascertain. These fish, I presume, are the fry placed in Lake Champlain by the Vermont Fish Commissioners. Yours very truly,  
PROF. S. F. BAIRD.

S. P. BANSET.

Natural History.

For Forest and Stream and Rod and Gun.

HABITS OF THE RUFFED GROUSE.

I READ, doubtless in common with thousands of your readers, Mr. Whitehead's article on Grouse, in *Scrubner's*, and noticed the inaccuracy of his statement that they strut up and down a log and beat it with their wings. But it strikes me that Mr. Murdock, in his strictures on the article, commits far greater errors than those he seeks to correct. It is true that the bird does not always select a hollow log, but that he frequently does so I can testify. I have found them on pines four feet in diameter, and as hollow as a barrel. I have also seen them drum on the roof of a standing tree, and once shot one off a huge granite boulder. But these are exceptions. Ninety-nine out of every hundred select a fallen tree, and almost always a pine, even where hemlock and other down trees are more numerous. As for the statement that the grouse will drum "wherever he happens to be," nothing could well be more at variance with the facts. When wholly undisturbed in his native woods, the grouse returns to the same log year after year; and in the wilds of Maine, where brood after brood is reared without ever seeing the face of man, I have seen drumming logs which bore the appearance of having been used for that purpose for a quarter of a century. But the bird has a wonderful faculty of adapting itself to the changes which are necessary for self-preservation in the vicinity of civilization; and near villages, where scarcely a day passed without their being hunted by troops of boys, I have known one of these birds to have half a dozen drumming logs, running or flying from one to the other, and never drumming twice successively on the same log. This very precaution might prove its destruction, as it would only be necessary to wait at one of the logs till he visited it in turn; but, fortunately for the bird's preservation, the average American boy is not a very close observer in natural history, and does not discover the trick. In regard to its drumming not being a love call, I have only to say that in more than a score of instances I have seen the female fly directly to the log to join the male, besides witnessing two desperate fights between the drummer and an intruder, the female, meanwhile, sitting placidly by within twenty feet of the combatants. I also have shot two females while drumming. From one of these logs I had shot the male two mornings before, and from the other the same thing had been done by a companion, as I afterward learned. Although I have repeatedly known them to do the same thing since, I never repeated the blunder, as I speedily learned to distinguish their drumming from that of the male, it being performed with much less precision; rather a sort of fluttering several times repeated. As for this autumn drumming, I have shot scores—I might almost say hundreds—of them while thus engaged, and have always found the birds shot to be young males. The explanation has always seemed to me very simple: The bird has reached maturity, its sexual instincts are awakened, and it drums, before learning the proper season, which goes to prove it a "love note" instead of operating against it, else they would drum at all seasons. In regard to their night drumming, I have observed that it takes place either in very dark, foggy or drizzly nights, or in the brightest moonlight, as when the glorious harvest moon of October floods the forest glades with a radiance almost equal to the light of day. In the former instance I have always supposed that the bird was belated, and unable to reach its roosting ground, owing to the sudden approach of darkness, and in the latter was deceived by the brightness of the moon.

I now wish to notice a remarkable habit indulged in by certain males of this species at rare intervals, and which has never to my knowledge been noticed by any naturalist. Once while partridge hunting when a mere boy I descried at some distance ahead of me, in an old "logging road," a strange looking bird, apparently without head or tail, and almost perfectly round in appearance. To shoot it was the work of an instant, and running to get it I was almost petrified with astonishment to pick up an ordinary cock partridge.

I was acquainted with an old hunter, a close observer of the habits of all kinds of game, and to him I went with my story. He informed me that what I had seen and shot was a "King Partridge" that in forty years of hunting he had only seen three or four, and that years would probably elapse before I would see another. It was quite true; it was at least ten years; and in the meantime I had grown to man's estate and had discarded my shot gun for a rifle and was deer hunting "on the leaves" one October when I next saw the "King Partridge." This time, you may be sure, I did not fire at it, but crept cautiously as near as I thought prudent without alarming the bird. The more I looked at it the greater became my curiosity, and I determined to see what effect my appearance would have on it. I therefore stepped out in plain sight. As it paid not the slightest attention to me I walked within twenty feet of it and examined it at my leisure. Every feather was perfectly erect, pointing if anything, forward of a perpendicular. The tail was spread out to its utmost extent, and laid forward almost flat on its back. Its neck was drawn in, so that when the bird was viewed, *en profile*, its head was entirely invisible, its ruff extending far beyond it. Its wings were slightly extended and drooping, so that the points just touched the leaves, and about every half minute it made a little dart forward about two feet, exactly like an old gobbler, except that it hopped with both feet like a robin, and during

the two hours in which I chased it round I could not get it to move in any other manner. There were half a dozen more ordinary grouse, male and female, in the flock, all of which had retired to a safe distance on my approach, leaving their "king" alone. He was very loth to take wing, but by running up and actually kicking so near as to nearly touch him, I forced him to take flight several times. He would fly about ten rods, and on alighting immediately assume the same position. After following him till I was tired I shot him, and submitted him to a careful examination. His plumage was remarkably profuse and perfect, the ruff very large and glossy, showing beautifully green in the sunlight; the tail one-fourth longer than in ordinary birds, and showing reddish bars across it instead of the lighter colors usually seen; but I have frequently shot them, having the same peculiarity.

I have seen two more since then; one only two years ago, which, after following it around for nearly three hours, with exactly the same results as I have already described, I left in peace, not having the heart to kill it. I have only to add that I have given a perfectly faithful description without the slightest exaggeration, having in fact an utter contempt for any person who willfully attempts to mislead in matters pertaining to natural history.

San Francisco, Sept. 7.

PENOBSCOT.

## BATS AND BAT CAVES IN TEXAS.

NUMEROUS bat caves are in Texas, in the limestones of the silurian, carboniferous and cretaceous formations being mostly west, northwest and north of Austin. In these caves the bats stay during the day, coming forth about sunset and returning a little before or about daybreak in the morning. In the northwest part of Burnet county, about one mile from the Colorado River, at an elevation of about 1,500 feet above the sea, there is a very large bat cave in a hard, dark limestone, destitute of fossil, but probably of lower carboniferous age. During the late war the bat deposits of this cave were largely used for the manufacture of saltpetre to make powder for the Confederate army.

A Mr. Allen, living in the river bottom about two miles below the cave, told me about it and its millions of bats, saying that it probably was very extensive, but that it only had been explored for a short distance. I proposed that we should explore and measure its extent, and arrangements were soon made for that purpose. Our party of six men and boys, with candles and pine for torches, descended about 20 feet on an old ladder fastened to one of the perpendicular sides of the entrance, which ladder had been used by those making saltpetre. The opening to the cave has a diameter of about 20 feet one way and from 10 to 15 feet the other. At the bottom of the ladder the entrance to the cave is about 10 feet high and 20 wide, going nearly horizontally, and enlarging at a short distance from the entrance. We did not go very far before the strong odor peculiar to the dwellings of bats became very unpleasant. At the distance of 50 or 60 feet from the entrance we began to see large numbers of bats hanging in clusters from the rocks above and on the sides of the cave. Our lights caused some few of these to fly, but we kept onward, measuring the distance with a tape line. Entering a large right-hand opening, the top soon became lower, and our way was up and down over large deposits of bat manure, the smell of which was very unpleasant. At the distance of about 300 feet from the main entrance the highest part of the cave was not more than 8 to 10 feet; all along were bushels of bats above and on the sides of the rocky walls. Our lights and talk aroused them, and we soon had swarms of them flying around us, extinguishing most of our lights, compelling us to make a hasty retreat and putting a stop to farther explorations. This cave is probably very extensive. We saw several openings from the main hall, and these may lead into large rooms.

Next day, toward sunset, I rode with Mr. Allen on horseback to witness the egress of the bats from the cave. The sun was about an hour high when we arrived at the cave. There we had glorious views of the mountains and plains of Burnet and Llano counties and the valley of the Colorado river. Half an hour before sunset a few bats flew to the entrance of the cave, and after circling around a moment or two they returned to give notice that it was time to prepare to come out and begin work. About fifteen minutes later they began to come forth in large crowds, circling around and around until they were about 25 or 30 feet above the surface of the ground, when they darted away in every direction in a galloping flight. So thick did the circling up column of from 15 to 20 feet in diameter become as to form a dense mass of life. The rush and flapping of wings made a noise like a mighty wind. Never before had I seen such a grand exhibition of life—active life. They chattered gayly, and seemed as happy as school children at intermission, or when school is dismissed. We watched the rush of bats until nearly dark, and when we left they were coming forth as thick and fast as ever. The scene to me was more wonderful than anything I had ever before seen, for there must have been many millions of bats during the day in that cave. I was told that sometimes they did not all return home again until sunrise. The inhabitants of that region are not troubled with mosquitoes, and have but few nocturnal insects.

Some years ago I occupied a room in the old land office at Austin, which was then used for the geological collection. The ceiling above was of sheet iron; having a little attic above next the roof. To me the attic was inaccessible. It was the home of thousands of bats, whom I could sometimes hear chattering during the day. I slept in the room below, and just before and at daybreak I often heard the bats coming home jabbering in a lively way as they jumped along on the ceiling above, apparently talking of their adventures during

the night. A jolly set they were. Bats are not such sombre, dismal things as they have been represented. Like the birds they destroy our insect enemies, catching those of nocturnal habits which these birds cannot do; therefore bats are friends of the farmer and gardener, and should receive his protection. The bat caves of Texas will furnish a large amount of fertilizing material of great value to the agriculturist. At present the cheap rich lands in the vicinity of these caves seem to require little aid from fertilizers.

S. B. BUCKLEY.

Austin, Texas, Sept. 6, 1877.

## THE VINAGRONE.

1747 F STREET, N. W., WASHINGTON, D. C.  
August 31, 1877.

EDITOR FOREST AND STREAM:

In your issue of Aug. 30, I noticed an interesting paper by Dr. Pope, U. S. A., in which he refers to a curious arachnid called "Vinagrone" by the Mexicans. I wish to say that the species is quite well known to entomologists under the name *Thelyphonus giganteus* of Lucas, and is quite common in New Mexico and Arizona. In 1875 the writer received a fine specimen from the late Dr. J. F. Boughter, of Fort Craig, New Mexico, and in the accompanying letter he stated his belief that the insect was poisonous and that it was so regarded by the Mexicans, who were quite familiar with it. As corroborative of this assertion he forwarded a letter from Dr. Lewis C. Kennan, of Santa Fe, New Mexico, which reads as follows:

"In regard to the *Thelyphonus giganteus*, I have no doubt of its venomousness. While stationed at Fort Buchanan, on the border of Sonora, in 1875, I demonstrated that its sting was poisonous. I knew an Indian boy bitten in the temple who never recovered. Several horses were bitten in the lip, clamping the insect in their bay, and the tumefaction and general distress were as great as from the bite of a rattlesnake. The insect is so extremely sluggish that great violence is necessary to make them bite. I had a French servant who frequently brought them to me in his hands and pocket, and I even suspected the omnivorous Gaul of cooking and eating them as a sort of land lobster, but they never troubled him in any way. The belief in their venomousness is universal in Mexico. To my mind the fact is beyond question. If not, what is the teleology of the fangs?"

So far as the opinions of Mexicans go; their testimony is of little value, as they have the most exaggerated notions regarding the poisonous properties of different animals, notably the gila monster (*Holodermis suspectum*) of Cope, which is absolutely harmless. But the opinions of Drs. Boughter and Kennan are entitled to every respect, as they have long been residents of the Southwest and close observers of facts in natural history. I would suggest that a series of experiments with this insect in regard to its venomous properties would be extremely valuable and interesting, and I know of no one better able to inaugurate them than Dr. Pope, who will confer a great favor on the scientific community if he can be induced to do so.

Very truly yours,

H. C. YARROW.

THE VINAGRONE IN FLORIDA.—A correspondent writes: The insect called Vinagrone, described by Dr. Benjamin F. Pope, in your issue of Aug. 30, is frequently met with in Florida, it is known among the natives as the mule killer, but it is black in color.

DOMESTICATED CARIBOU.—EDITOR FOREST AND STREAM: I have long been anxious to add to the collection in my miniature park a specimen of the woodland caribou, but have not succeeded till this summer, when I heard through a Canadian acquaintance of a two-year old cow having been caught in the snow last March by a native over on the north shore of the Gulf of St. Lawrence, and that in May or first of June she dropped a male fawn, which, strange to say, lived. As the result of my exertions the mother and fawn are now in my enclosure, having come through from Murray Bay by boats and cars without a scratch, and finer specimens never were seen even in their native wilds. The cow's horns are now in the velvet. The fawn is as large as one of my year old deer, and so fat that he can hardly travel. The mother produces a very large flow of milk, and although caught wild last March, she is tamer than any sheep. To-day my man put a halter on her and led her all about the enclosure. Next year I am in hopes to report my success in breeding them in captivity.

M. W. CLARK.

Danville Junction, Sept. 20, 1877.

—A stuffed pig, with one eye square in the forehead, constitutes the Harrisonville (Missouri) "Museum of Natural History and Fine Arts." But do not despise the day of small things. That one-eyed porcine may yet prove the inspiration of some mute, inglorious Agassiz.

THE WILLET.—In the FOREST AND STREAM of Sept. 13, your correspondent from Washington, in his interesting account of Chinoteague Island, speaks of the willet (*Synophenia semipalmata*, Hartland), as breeding all along the coast from the mouth of the Mississippi to New York. He does not appear to be aware that it is also found along our entire Atlantic coast, as far, at least, as Halifax, Nova Scotia. I have found it breeding on the coast of Massachusetts, near Nantucket, and in the vicinity of Halifax, and obtained the eggs in both cases. The same writer says also: "The propensity of the bird to remain in the immediate vicinity of the coast is such that it is seldom met with inland, even along the shores of large rivers." This, though perhaps true, so far as relates to the more Eastern States, is not correct as applied to the whole country. Mr. E. W. Nelson in his admirable paper on the birds of North Eastern Illinois, speaks of it as resident in

summer in the marshes and on the West prairies. And Capt. Charles Bendire, a reliable and enterprising investigator in ornithology, in his equally admirable paper on the birds of Eastern Oregon, just published in the proceedings of the Boston Society of Natural History, speaks of this bird as "An abundant summer resident. I have taken several sets of their eggs. They are equally abundant in the higher mountain valleys at an altitude of 6,000 feet and more. In fact they are found everywhere where there are marshes."

Yours,

THOMAS M. BREWER.

EATING THE SQUID.—Some two years ago quite an interesting correspondence took place in the FOREST AND STREAM in regard to eating the squid. I find in reading Rabelais that in the Third book, chap. XIII, of this famous author, he writes: "Vous mangerez a souper non felices, ne lieures, ne autre chair: non poultre qu'on nomme polype." Translated, this is: "You shall neither eat for supper peas nor hare, nor any kind of meat; not even squid, commonly called polype." This little reference to Rabelais may be interesting to Mr. Tegetmeyer of the London Field. But I am not sure whether such a learned authority as the Parson of Mendon will induce our people to eat the cephalopod.

New York, Sept. 20, 1877.

CONSTANT READER.

ATLANTA RATS.—An Atlanta paper says:

Atlanta has become so thoroughly infested with rats that their destruction has become a matter of very serious importance. The ruthless invader of our store-rooms, granaries and coops is the regular wharf rat—or Norway rat, as it is called. It is an importation, and not a native production. It is said that it came with Sherman's army to Atlanta, being brought hither in the forage for the horses that was shipped out from New York. The Sherman rat, as we propose to call him during the crusade against him that is hereby inaugurated, is a perfect monster. He is as large as a small kitten, has huge thighs and foreshoulders, possesses enormous strength, is combative and plucky, and his cruel, rapacious face is ornamented with a pair of flowing moustaches. He has bred with incredible rapidity since his introduction here, and has literally devoured or driven out the modest, inoffensive, old-fashioned little gray rat, that innocent, easily-satisfied vegetarian that may be termed "the rat of our fathers." A more harmless little rodent than our little rat of anti-bellum times can hardly be imagined. He was accepted without a murmur, and really taken as a sort of pleasant joke. He figures in history as a decent, gentlemanly rat that cracked an occasional grain of corn, or licked syrup once in a while from his tail, that he had dropped into some sweet jug. He figures in history in such pleasant episodes as the famous visit of the country rat to the city, and in poetry as the rat that eat the malt that lay in the house that Jack built. He did no harm, and was liked and tolerated on all hands. But this new rat, born in the throes of revolution, and growing amid the fierce turbulence of this latter day, is a bloodthirsty and abnormal scoundrel. He despises the mild and musty corn, or the tranquil jam upon which the rat of our fathers fed, and whenever he wants a lunch he rushes out into your yard, seizes a half-grown chicken, and clipping its throat-latch with his sharp teeth, throws the palpitating corpse over his shoulders and gallops back to his den to wallow in warm gore. These huge rats can be seen in great numbers galloping about the stores, along the street at night. It is almost impossible to raise poultry anywhere in the city. The rats kill young chickens and ducks with the greatest ease, and during last winter entered on one occasion a chicken coop and pulled from its roost and destroyed a full-grown hen. They kill grown pigeons frequently. They do not confine themselves to the city, but are spreading into the country. We have seen them six miles from town.

"BIRD CULTURE."—Mr. Elizur Wright read an admirable paper on this subject before the Social Science Association the other day. Of the cat bird, one of our feathered friends not in very general favor, he has this to say:

The mimit, or *Orpheus carolinensis*, as Audubon calls him, is the very pink of propriety in dress, and most graceful in his motions. But his crowning excellence is his domestic morality. The industry of both husband and wife in building their nest, and their solicitude to have it in the best place, are something wonderful. If molested after they have begun and nearly completed a nest, they will select a new spot and build another, and the mutual discussions they will have on the subject is very amusing. As an illustration of their industry in building I once found a nest, the top of which was securely fixed in the horizontal fork of a cornel bush, and the bottom rested on the bent stalk of a blackberry brier fourteen inches below. The birds had evidently begun to pile sticks on the brier when it was two or three inches below the fork, and as it bent low with the weight, kept piling on the sticks till the unstable foundation lodging in a bush that arrested its descent, the pile finally rose above the fork and was made steady by it. If Stevenson reasoned and persevered when he carried his railroad over Chat Moss, why not Mr. and Mrs. Mimit when they built this nest?

Wilson tested the perceptive faculties of this bird by taking away its eggs and substituting those of the brown thrush. In a minute or two the male came to the nest and examined the size of the eggs, then flew off to his mate and seemed to converse with her. Then he returned, took out the eggs tenderly, one by one, and dropped them in the bushes, thirty yards away. He says, also, "From the nest of another cat-bird I took two half-fledged young, and placed them in that of another, which was sitting on five others. She soon turned them both out. The place where the nest was not being far from the ground, they were little injured, and the male observing their helpless situation, began to feed them with great assiduity and tenderness."

The habits of the beautiful bird I have been describing, and a score of others that incline to keep it company and nestle about the cottage, are the best possible text-book for the infant mind. A child may be as easily taught to respect and love the little birds as to say its prayers; and it cannot fail to have a most salutary and elevating effect, both morally and intellectually. The little tragedies that are occurring when the cottage eaves and shrubberies are tenanted by little birds are sure to interest children and give them deep instruction. For example, I cite a fact of the present summer: A pair of chip sparrows (*Fringilla socialis*) had built a nest on a grape vine trellis over my door, so insecurely that when the five young ones were grown nearly large enough to fly, one of them fell out on the gravel and was killed. A day after another toppled out, but was not much hurt. The nest, which was settled away on one side, had no room for him to be put back, but he was put back, and the old ones presently pushed him out, obviously to save the lives of the rest. So, after con-

sultation, an oriole's nest, which had been preserved in the guret, was brought down and securely suspended near the nest of the sparrows, and the little unfortunate was placed in it. The parent birds not only began at once to feed him, but the next morning it was noticed that they had removed all their other little ones into the safer nest, where their wings soon came to maturity. The *socialis* usually avoids such an accident by building on the ground or a low bush. In this case, seeing the peculiar immunity of birds about the house, he was induced to get as near it as he could and take the risk of a dangerous elevation. Perhaps with time and experience he will learn, like the oriole and vireo, to build on the suspension plan. This is not altogether a fancy, for the progressive architecture of birds is a well-established fact. They, as well as we, study tactics and meteorology, and build according to circumstances. I have certain boxes which are sure to attract the first bluebirds that come with the first warm day of spring. This bird, in spite of the softest warble in the world, is so unneighborly to his own kind that you can never have but one pair near the same house. One spring a pair commenced laying in a little iron box, long before Jack Frost had finally abdicated. Knowing there were two eggs in the nest, I put in a finger one morning, expecting to find at least three, but not one could be felt. My first thought was that the cat had been making the same experiment before me, and it was well that I did not meet her just then, for the next day I found she was quite innocent. The birds had covered up their eggs with the best non-conducting substance to be found to keep them from freezing, for the night had been cold enough to congeal them, and I was too dull to discover at first what they had done.

—The enormous forest fires in Algiers caused a loss of many millions to the French Government. In fleeing from the flames, beasts of prey and beasts on which they habitually preyed, ran side by side, the former without thought of molestation, and the latter without fear. An Arab said that he saw from an eminence a lion in an open space surrounded by flames. He roared, lashed his sides with his tail, and in vain sought an escape. Finally, he ran into the flames.

ARRIVALS RECEIVED AT CENTRAL PARK MENAGERIE FOR WEEK ENDING Sept. 22, 1877.—One Virginia deer, *Capreolus virginianus*; one robin, *Turdus migratorius*, presented by Mrs. J. Williams, N. Y. City; one pigeon hawk, *Falco lithofalco*, presented by Mr. Chas. V. Adee, N. Y. City; one raccoon, *Procyon lotor*, presented by Mr. Campbell, N. Y. City; one India elephant, *Elephas indicus*, and five African elephants, *Elephas africanus*, placed on exhibition. This is the first time so large a number of small African elephants have been exhibited together in this city. The India elephant is one of the collection brought to England by the Prince of Wales on his return from his late trip to India. Among the many absurd notions of the elephant which obtained credence in Europe a little over three hundred years ago was the idea it had no joints and could never lie down. In 1681, however, an elephant was taken to the city of Dublin and exhibited to the public, when of course most of these erroneous ideas were removed. This animal was afterward destroyed by fire, leaving the people very much grieved at the loss. There had been an elephant in England previous to this, Louis IX. of France, being credited with having sent one to Henry III., which was placed in the tower of London. During the middle ages little was known of this animal until the Portuguese had penetrated to the interior of Africa, when it became a somewhat common object. During the time of the Roman Empire the elephant was not only for war purposes and gladiatorial shows, but also for amusement. Suetonius mentions that an elephant in the presence of the Emperor Galba climbed up an inclined rope to the roof of the theatre and descended in the same way. These animals never breed now in captivity, though Pliny says that they at one time bred in Rome. At its birth the elephant is about thirty-five inches high, growing nearly eleven inches in the first year; in the second, eight; in the third, six; in the fourth, five; in the fifth, five; in the sixth, three and a half; in the seventh, two and a half, attaining their full growth between the ages of eighteen and twenty-four. Period of gestation twenty and a half months. It is said to live one hundred years, though the Romans believed that it lived two or three hundred years, and made it the symbol of eternity. W. A. CONKLIN.

ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDEN DURING WEEK ENDING TUESDAY, Sept. 18, 1877.—Two meercats (*A. piscivorus*), purchased; one garter snake (*B. straltes sub. ordinata*), purchased; one *Bastor erythrogrammus*, purchased; one chicken snake (*Crotalus quadricinctus*), purchased; one ground rattlesnake (*Crotalophorus milvatus*), purchased; one rabbit (*Lepus cinereus*), presented; two swift foxes (*Vulpes velox*), presented; one gray fox (*Vulpes virginianus*), presented; one horned toad (*Rhinospoma cornuta*), presented; four leopards (*Felis pardus*), born in garden. ARTHUR E. BROWN, Gen'l Supt.

Woodland, Farm and Garden.

ORNAMENTAL TREES.

IN planting for effect, the habit of the trees employed is of the first consideration. Next to the general design, there is nothing which so much affects the appearance of a country seat, for instance, than the form of the trees that adorn it. Perhaps no tree that has grown up naturally can be called ugly; but no one would think of comparing, for ornamental purposes at least, a shapely unbragous Beech, Sycamore, Walnut or Linden, with their far-spreading branches and symmetrical heads, with bare-limbed specimens of the same class. For planting in masses no species come amiss, but for single specimens suitable varieties are not so numerous. Much, however, depends on soil and situation. No trees will grow in a shapely form without room and light, nor will they be likely to withstand the hurricane unless they have been reared in the open exposure since their infancy. Hence, in parks, which have been extended by clearing away the timber, there is often great ruin worked among the trees which have been left, whether singly or in groups. Thinning out should therefore be performed with great care when the trees are left with an eye to effect, and the species should be considered. The Oak, Hickory and Walnut will perhaps bear isolation, after being "nursed," as well as any. So will the Tulip tree and Chestnut. The Elm, beautiful as it is, is a somewhat dangerous tree, as it is often apt to lose an important limb; but when reared in the open is one of the very best and most

reliable. The Sycamore and other Maples, though the foliage and smaller branches often suffer from the wind, present a stout front to the storm, considering its heavy mass of foliage. The Chestnut, though of lofty bearing and luxuriant leafage, is one of the best to keep its place. For planting to grow into specimen trees, the Linden is perhaps the most handsome in form. A uniform and somewhat round lead is its general habit, but in some situations it forms a perfect cone, its shape being seemingly affected by the character of the soil in which it grows. It has always a very branching habit, but in finely-divided soils the branches appear to be more twiggy and subdivided, which helps to give the head a more symmetrical shape. Next to the Linden comes the Beech, which in the open park forms an even, round head, the diameter keeping pace with the height. This tree, with the Horse Chestnut and Oak, lends a distinct character to the landscape, and is generally associated with rich meadow land and an undulating country, as the Fir is with mountain slopes and Alpine ranges. How totally changed the appearance of the landscape may be by the character of the trees with which it is furnished, must be apparent to the most casual observer. A few groups or rows of Poplars, rearing their tall spires against the sky, create a distinct impression on the scene, while a skyline of distant Firs, with their motionless pyramidal forms towering one above another, completely alters its aspect. The sombre Scotch and Austrian Firs, too, almost darken the face of the landscape with their sable plumes and dark masses of foliage; they are most effective in masses, however, or in groups where a distinct effect has to be produced, single specimens being lost, unless it be on a lawn, where they are ornamental enough. The Norway Spruce and Hemlock are also noble adjuncts to a park properly planted; the latter, especially, lightens up the darker and heavier masses, and gives more character and grace to the whole. Weeping trees of most kinds must be included, but they associate best with dressed grounds, their branches often trailing on the surface of the lawn. Among these, the Weeping Ash must be reckoned as one of the most ornamental from the length of its branches and the freedom of their sweep. For grace there are none to equal the Birch, Beech and Willow. The Elm looks well on a tall stem, but when worked near the ground it has rather a stiff appearance, though such trees make excellent arbors, the branches being close and thickly covered with foliage. The Weeping Lime, Laburnum, Rosemary, leaved and Kilmarnock Willows and others, are all of them more or less ornamental, and adapted for pleasure grounds or parks.

WHY THE PRAIRIES ARE TREELESS.

EDITOR FOREST AND STREAM:

HOUSTON, Sept. 3, 1877.

In an extract copied into the Houston Daily Telegram from an article written by a geologist named Whitney, he very boldly makes the assertion that the prairies are treeless because the soil is too fine, too close, too compact, to admit vegetation. He seemed to put this forth as an original idea, but it was broached long before by the distinguished Agassiz. The latter seemed to write on nature with a true inspiration; he did indeed illumine nearly all the dark and mysterious places. Yet in this particular I am compelled to dissent from him. If the prairies are treeless on account of the fineness of their soil, why is it that trees flourish so readily when planted upon them? That they do flourish, nearly all of us can bear testimony. Indeed, I know of no country in the world to which trees take more readily than they do to our Texas prairies when once given a start. All that is necessary is to stick them in the ground in winter and give them protection a few years from cattle; they will then grow like "the green bay by the waters." Perhaps for a finely comminuted soil, our Houston prairie is unsurpassed. It is so fine that when dry it may readily be converted into an almost impalpable powder; and yet all of us know that trees luxuriate in this soil when we once put them forth.

This is enough to explode the theory of Agassiz, grand as that noble name is; but there is another singular fact that I wish to call your attention to. The great prairies which come down to the Colorado River from the northwest are the most treeless of all in Texas. You may sometimes travel over them days together without seeing a sign of a tree, and yet, even in these vast, treeless expanses, if you will notice you will continually find little tender switches of mesquite struggling to get through the tall grass. Take a pick and dig where you find these switches, and you will invariably discover, just below the surface, a great network of living mesquite roots as big as a man's leg. If these prairies will support roots of such gigantic size, why couldn't they support trees? It proves at least that the finely comminuted and compacted soil has nothing to do with it.

Another thing, the Llano Estacado is the greatest prairie in Texas, and also the most treeless. The soil of that great prairie is usually exceedingly fine, without a grit in it; but it is traversed very frequently by lines or ridges of sandy soil, some of which are of great width. Now, these sandy ridges or lines, as far as I have observed them, are invariably without even the mesquite roots, and sometimes almost without grass. Not so with the rest of the prairie; elsewhere you will find the mesquite roots, sometimes a little mesquite thicket, and always a noble carpeting of grass. If the theory of Agassiz is correct, it is the sandy ridges or lines that should have the roots and other vegetation, while the rest of the prairies should not. In fact, the theory will not hold water at all, at least so far as our Texas prairies are concerned.

The article quoted also advances the idea, entertained by many, that the prairies are treeless by reason of frequent fires. The underground forests would seem to support that idea, but I am sure from my observation that it is as incorrect as the other. I have seen hundreds of beautiful groves and belts of forests far away in these vast prairies, in positions just as much exposed to destruction by fire as they could have been anywhere else. They bore no sign of fire. How did they escape if this latter theory is correct? The truth is, the cause of the prairies being treeless, or nearly so, has never been explained yet on any satisfactory ground, and probably never will be. The prairie, the Indian, the buffalo, the mustang,

the antelope and the prairie dog, are all of one family, and they are all passing away together. Perhaps the prairie was made for them, and perhaps they were made for the prairie. Nothing can be more certain than that they are marching together a grand march into death—step by step, and hand in hand. The epoch to which they belong is almost gone. Not many years hence the Indian, the buffalo and the prairie will exist only in song and history. The ways of the Great Architect are full of mystery as they are of beauty. N. A. T.

FERN CATALOGUE.—We have just received the most complete and satisfactory catalogue of ferns we have seen for many years. In calling attention to it, it is quite unnecessary to enlarge on the advantages of the study and cultivation of ferns. They are beloved by old and young, and a closer companionship with them may be considered as one of the highest and purest of pleasures, so that whether we are in winter enjoying the genial warmth of the green-house necessary to their growth, watching their development in the little Fernery or Wardian case in our room, or experiencing the delicious coolness and shade of an atmosphere adapted to the cultivation of the hardy species during the summer months, the feeling is alike delightful and pleasurable, and is only to be realized by actual experience. The cultural notes are evidently compiled with much thought and care, and those cultivators whose experience is limited, will be greatly benefited by their perusal. It is published by Messrs. Stansfeld & Son, Vale Nurseries, Totmorden, England, who, we have no doubt, will gladly mail a copy to all interested in the cultivation of ferns, that apply for it. It contains a list of nearly seven hundred hardy ferns and over four hundred Exotic species. Ed.

—The New York Horticultural Society holds its fall exhibition at Gilmore's Garden, commencing Wednesday evening of next week. We are informed that the society expect to make a finer display than they have yet done, and advise our readers not to miss seeing it. The exhibition will remain open until Friday evening.

J. P.—Your ferns are: No. 1, *Pteris serrulata cristata*; No. 2, *Pteris longifolia*; No. 3, *Polypodium hexagonopterum* (a native sort); No. 4, *Nothochlæna chrysophylla*. The latter is very impatient of being watered over the foliage.

W. B.—Your name is quite correct—*Wittoria* or *Gymnostachyum argyreneum*; the best red veined variety is *G. Pearcei*.—Ed.]

NOTICE TO SPORTSMEN.—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting. P. O. Box 1,294.—Adv. ABBEY & IMBER, 38 Maiden Lane.

Sea and River Fishing.

FISH IN SEASON IN SEPTEMBER.

FRESH WATER.	SALT WATER.
Trout, <i>Salmo fontinalis</i> .	Sea Bass, <i>Scomops ocellatus</i> .
Salmon, <i>Salmo salar</i> .	Sheepshead, <i>Archosargus probatocephalus</i> .
Salmon Trout, <i>Salmo confinis</i> .	Striped Bass, <i>Morone americana</i> .
Land-locked Salmon, <i>Salmo gairdneri</i> .	White Perch, <i>Morone americana</i> .
Grayling, <i>Thymallus tricolor</i> .	Weakfish, <i>Cynoscion regalis</i> .
Black Bass, <i>Micropterus salmoides</i> .	Bluefish, <i>Pomatomus saltatrix</i> .
<i>M. nigricans</i> .	Spanish Mackerel, <i>Cybium maculatum</i> .
Masacouge, <i>Isox nobilior</i> .	Cero, <i>Cybinum regale</i> .
Pike or Pickerel, <i>Esox lucius</i> .	Bonito, <i>Sarda sarda</i> .
Yellow Perch, <i>Perca flavescens</i> .	Kingfish, <i>Menticircus nebulosus</i> .

FISH IN MARKET.—Among the many curious and notable things displayed at Blackford's in Fulton Market the past week, we noticed a catfish from the Mississippi River, weighing 149 pounds; an American angler (*Lophius americanus*), weighing 45 pounds; a dolphin, weighing 22 pounds; an angel fish; a hammerhead shark, and a loggerhead turtle weighing 410 pounds.

Fish of all kinds are in good supply, and prices are reasonable. The smelts in market are remarkable for their large size and superior quality. They come by express from Bathurst, N. B., and retain the peculiar cucumber flavor by which they are distinguished when first taken from the water. Our quotations are as follows:

Striped bass, 18 cents per pound; smelts, 20 cents; bluefish, 10 cents; salmon, frozen, 30 cents; green do., 35 cents; mackerel, 10 to 25 cents; white perch, 15 cents; weakfish, 12 cents; Spanish mackerel, 35 cents; green turtle, 15 cents; terrapin, \$12; halibut, 15 cents; haddock, 6 cents; king-fish, 25 cents; codfish, 8 cents; blackfish, 15 cents; native herrings, 6 cents; flounders, 6 to 10 cents; porgies, 10 cents; sea bass, 18 cents; eels, 18 cents; lobsters, 10 cents; scollops, \$1 per gal.; English turbot, 40 cents; soft clams, 30 to 60 cents per 100; Salmon trout, 16 cents; sheepshead, 25 cents; whitefish, 15 cents; pickerel, 18 cents; yellow perch, 10 cents; hard shell crabs, \$3.50 per 100; soft crabs, \$1.00 per dozen; frogs, 45 cents per pound.

KA MONSTER HALIBUT.—In Faneuil Hall Market to-day, I saw the largest halibut ever brought in here. It was caught with a common-sized cod line and hook by Capt. Joshua Story, a Swampscott fisherman, six miles off Scituate, Mass. Its length was nine feet. The head, minus its gills, weighed 35 lbs, and the weight of its body alone, after being dressed,

was 325 lbs., and probably when taken from the water did not weigh less than 400 pounds. It netted the lucky fisherman \$26, and is retelling here to-day for 12c per pound. Boston, Sept. 22, 1877. N. G.

FISHING IN GREENWOOD CEMETERY.—Two men who were caught stealing gold fish with a net from the lake in Greenwood Cemetery were sent to jail for twenty-nine days.

KINSEY'S ASHLEY HOUSE.—Barnegat Inlet, Sept. 21.—No fishing of note past week except sea bass and a sprinkling of striped bass. Bar too rough to bluefish. Capt. N. Crammer caught a 29-pound drum on a squid on the 19th.

PENNSYLVANIA.—Greenville, Sept. 20.—Black bass have been caught in quite large numbers. James Heube, a veteran in the business, has brought in some fine strings lately.

THAT SHARK AND ITS OIL.—In reply to our friend B. of Austin, Texas, relative to the oily subject, I would say that the liver of the shark named in my article "Red Snapper Fishing in the Gulf of Mexico," after cutting away a part of the upper portion, filled to the top an empty half-barrel from which had been used the corn beef it contained. The statement that the liver weighed about 125 pounds was simply a guess. The Captain of the vessel filled two five-gallon cans with the oil before my friend and I left, and all hands estimated there would be not less than ten gallons more. The apparent incongruity in my statement arose from my modestly estimating the weight of the liver in the raw. B. H. P. Vicksburg, Sept. 19, 1877.

A GAME FISH.—A Detroit paper says: "The other morning while George W. Osborn, of that city, was fishing from the east end of the long crib off Stony Island, with a hand line and float, he had occasion to leave for a few minutes and made his line secure to the crib, as he supposed. Upon his return, however, nothing was to be seen of his fishing tackle, and as no one had been near it during his absence he concluded that it had been hooked by some member of the finny tribe. Five minutes later the float was observed upon the surface of the water three or four hundred feet away from the crib, alternately appearing and working toward the middle of the river. There was no small boat in the vicinity with the aid of which to recover the tackle, and the float finally became lost in the distance. This was between eight and nine o'clock in the forenoon. Between three and four o'clock in the afternoon Mr. Osborn walked down to the end of the Canada Southern ferry-dock, and looking over the western side discovered his line and float near the dock. With considerable risk of getting into the river he climbed down to the water, some ten or twelve feet, and got hold of one end of the line, but found something lively tugging at the other end of it. The telegraph operator at the ferry station now came to his aid, and with the help of a pike-pole, a ten-pound pike was soon landed on terra firma more than six hours after it had taken the hook.

AN ANGLER'S CATECHISM.—Down at Sea Grove the pastor has great trouble in getting Sunday school teachers. After much inquiry he secured a long, lank fisherman, Sol Warrington. The following is a verbatim report of his first lesson:

- Q. How many ways does the Old Testament teach of catching fish? A. Angling, with a seine and hooks; Isaiah xix, 8-11; Amos iv, 2.
- Q. Who were the best of the Apostles? A. The four fishermen, Peter, Andrew, James and John.
- Q. How did the Apostles like their fish cooked? A. John xxi, 9; Luke xxiv.
- Q. What was considered a fair day's luck fishing? A. St. John xxi, 11.
- Q. What was a poor day's luck? A. St. John xxi, 3.
- Q. How far from land did the Apostles fish? A. St. John xxi, 8.—Philadelphia Bulletin.

### The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

- 1. Age. 2. Food and medicine given. 3. Appearance of the eye; of the coat; of the tongue and lips. 4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc. 5. Breathing, the number of respirations per minute, and whether labored or not. 6. Condition of the bowels and secretions of the kidneys, color, etc. 7. Appetite; regular, variable, etc. 8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg. 9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

### YOUTHFUL CANINE DEPRAVITY.

WHAT is to be done? The sweet calm of our household, at Fern Bank, has been sadly ruffled by the advent of a setter puppy which is the source of endless trials and tribulations to my daughter and her factotum, Becky, our house-keeper, and the "mammy" of my little grandson, Freddie. This puppy, the cutest little imp that ever tried human patience, is the incarnation of perpetual motion, mischief and devilry; he has all the acquisitiveness and secretiveness of a magpie. Shoes, slippers, socks—anything left within his reach is either damaged beyond the possibility of repair, or hidden away in remote places, to be recovered, if at all, only by accident, or the most diligent search. These, however, are the natural peccadilloes of youth, the effervescence of a growing vitality, and they may and should be condoned; indeed, a sedate puppy, without the spirit to be mischievous, is rarely, if ever, worth the raising. But alas, wretched whelp! though only in his fourth month, and with a pedigree as ancient and illustrious as that of Burges' Rufus or Mohawk's ill-fated Crown Prince, he has evinced a depravity of morals and appetite grievous to all true lovers of "blue blooded" dogs, and calculated to shake our faith in the whole canine race. Alas! that I should be compelled to chronicle the fact! This beautiful puppy, of such gentle lineage, has become, even before shedding juvenile teeth, an inveterate egg sucker, and is as skillful at finding as some people are at hiding a

nest. At the very first note of the triumphant cackle of the egg-laying hen, the imp is off like a shot to look for her nest, and unless the vigilant Becky, who also has charge of the poultry department, can outfoot him in the race, or unless the nest is beyond his reach, he is sure to seize and gobble the egg. Why, sir, if this puppy, when grown to mature dog-hood, should find birds in the field as he does eggs in the nest, he will become the champion of all the field trials in America, and his owner might safely throw down the gauntlet to the kennels of Smith, of Strathroy; Tilston, of Paskack; Raymond, of Fox Farm; Guido, of Memphis, and even the great Warwick, who, as I write, is slaughtering the woodcock at Lake Glenida, over the peerless mother of the youthful Con.

To this possibility, however remote—to this possibility alone is the little scoundrel (Banquo by name) indebted for his life in spite of his blue blood.

Mr. Editor, I like a fresh egg for my breakfast, and that great Italian artist, Moretti, of your city, has taught me to dote on omelette au ham, and omelette au fromage, but since the coming of this egg-sucking demon I have observed that these luxuries have disappeared from our table. On complaint to Becky, she throws the responsibility on the puppy, which, I verily believe—though she is a good-hearted girl—she would gladly see consigned to that instantaneous and ignominious death which my eccentric and gallant friend, the late Emmet Howe was wont to invoke for his imaginary enemies.

So far, Tom Greene, my son-in-law, the unfortunate owner of this depraved little beast, and myself have resisted the just remonstrances of my daughter, who has the laudable housewifery ambition to have a well stocked poultry yard, telling her that such trials of temper and patience are sent to her as they were to Job, and that she has a chance of becoming the peer of that illustrious patriarch. But she retorts, with considerable force, that we men are utterly ignorant of the importance of the egg in domestic economy, and she points out the folly of sacrificing such an indispensable element in the culinary art to an untrained puppy, which may die of distemper before ever taken to the field. And then she enumerates, until my mouth fairly waters, a long list of delicious edibles and drinkables of which the egg forms a component part, and threatens us with their loss if the deprecator is not sent away.

We are to have no egg-nog at Christmas and no egg-flip to tone the stomach and steady the nerves of a morning; we are to be deprived of our delicious batter cakes and omelette, and even clear coffee at breakfast; we are to have no dressing for our lettuce, or custard at dinner, and no pound-cake and jumbles for our tea. Now I confess, Mr. Editor, that I feel shaky under the substantial and, I may add, succulent eloquence of this plea, for I have reached that age at which the pleasures of the table are more attractive than those of the field. Meanwhile Tom and I are exhausting our ingenuity to convert the young sucker from his evil ways. Among other unsuccessful expedients resorted to was the famous "pepper cure," deemed infallible by the sportsmen of the south.

You, Mr. Editor, who are known to and appreciated by the culinary artists of Gotham as an enlightened and distinguished gourmet, have doubtless tasted that exquisite preparation of African pepper bearing the *imprimatur* of Mansel White, and so hot as to be called by the Creoles of New Orleans "*fon d'ouflet*." Well, through a minute perforation in the butt of an egg we injected a teaspoonful of this liquid fire. The bait thus prepared was placed where the puppy could find it, which he speedily did, and then, incredible as it may appear, he gobbled up the egg, pepper and all, not only without the howls of agony which we hoped to hear, but with a wagging of his caudal extremity, eloquently expressive of the highest enjoyment and satisfaction!

Our patience and resources were alike exhausted. We proceeded to pass judgment on the criminal, and he was ordered to execution at the hands of our henchman, when my little grand-daughter, Belle, interceded for him. No gentleman, much less a doting old grandfather, could resist such a plea from such a source. A reprieve was granted, and now, at Belle's suggestion, we appeal to the FOREST AND STREAM in the hope that you or some of your numerous readers will suggest a cure for the puppy, and thus enable us to eat our eggs in peace. F. G. S.

Fern Bank, Sept. 7, 1877.

CLAIMING OF NAMES.—The naming of canines, as now understood, is a matter of considerable moment. If one gentleman names his dog Joe, another who may have a fancy for the same is supposed to be debarred its use. There is no necessity for this whatever; it is in fact perfectly nonsensical, and a continuance of this theory will soon push nomenclature to the wall. Because one names his dog Jack, is no reason that another may not have the same designation, any more than because the first names his child Henry, a son of the second has no right to be so called. Names are plenty and more may be manufactured, yet after all, the English alphabet contains but twenty-six letters and but six vowels, and their changes will soon be exhausted by following out the ideas of nomenclature as now promulgated. What then is to be done?

We see no reason why the name should not be prefaced by that of the owner, and thus made distinctive. When we say Morford's Joe, we certainly do not mean Smith's or any other man's Joe, though there may be a dozen of the name; and

with this system, and by the aid of a kennel register, the difficulty entirely disappears. The name Dash may not do belong to hundreds of curs of high and low degree, but Rodman's Dash is a distinctive title and no one will confound it with Dash whom the street gamin whistles around the corner. If Rodman sells his dog to Johnson the animal takes the distinctive title of his new master, and becomes Johnson's Dash, or, if we desire to be more explicit, we say Johnson's Dash, late Rodman's. This does away with the petty disputes and quibbles that are constantly arising, and also with the necessity of constantly torturing one's brain for new alphabetical combinations. Of course no one has the right to apply the distinctive name of another to his animal, any more than Jones may name his children Smith. We believe that sportsmen will not only find the new mode satisfactory, but that it will prove a welcome relief from the quarrels that are now being engendered.

Right in this connection we wish to speak of a circumstance happening in this office. Both Mr. Morris and Mr. F. R. Ryer claimed the name of Con for puppies. Mr. Morris claimed priority and appealed to us for a decision, to which we replied in our columns that the matter rested not with us but with the National Kennel Club. Mr. Ryer desired to answer Mr. Morris, but we refused to allow a controversy to appear in our columns, and referred the latter to the National Kennel Club. On looking over our columns Mr. Ryer discovered that the name of Con had been claimed for his dog by Mr. Evers previous to the claiming of the same name by Mr. Morris. We stated to him that we would gladly accord room for a simple statement of the fact in our columns. The following day we received a communication from Mr. Ryer which he desired inserted, stating that unless we would use it as it was, "*without cutting*," he desired the article returned. As Mr. Ryer is a very positive person, having no small opinion of his own merits, and moreover somewhat bellicose in nature, and his article being somewhat offensively personal to Mr. Morris, we declined to publish; whereupon the honorable gentleman takes exceptions, and rushes into print with some of the less conscientious journals, giving utterance to the falsehood that we declined to publish because he would not concede the FOREST AND STREAM to be the only correct authority on canine matters—an assertion that has no other foundation than his own imaginative brain. The only correct authority on canine matters is undoubtedly Mr. F. G. Ryer—in his own estimation—though "little rills" may flow elsewhere. We wish it distinctly understood, as we stated to this venacious gentleman, that the FOREST AND STREAM is not a medium for personal strife.

FEEDING PUPPIES.—No animal can be expected to attain its full size and form except it receive a full supply of wholesome food. Only those breeders who have given the matter close attention can realize how much a healthy, growing puppy will consume, consequently very many young animals are injured through want of sufficient and proper nourishment.

Some bitches will supply nourishment for nine or ten puppies until they are four or five weeks old. Others have but a small secretion of milk, and can sustain no more than four or five, but for a short time; hence it is necessary to watch closely to know what the bitch is doing for her progeny, and supply any deficiency accordingly. Even when the maternal supply is ample to keep the offspring in good condition, it is decidedly better to commence feeding the litter with other food when they are four or five weeks old, in order to avoid too sudden change of diet when they are taken from the mother. About the best food at such time, is good sweet cow's milk with the addition of a little scalding hot water, in which may be added after a few days, well-cooked corn or oat meal, the latter being preferable. When seven or eight weeks of age, give them beef or mutton soup with mush and milk; substituting in turn, wholly or in part, scraps from the table as this age is doubled. Meat, bones, bread, vegetable gravy, etc., form an excellent diet for growing puppies of this age, as well as for adult animals, when given in quantities sufficient to keep them in proper condition. One of the most important matters in the rearing of young animals is that they be kept in proper form, consequently they should be frequently fed, and receive as much food as they will eat cleanly; feeding is allowed but twice a day they become almost emaciated, and eat so ravenously when supplied as to become "potbellied" and misshapen, and frequently out of health, consequently from the time they are weaned until they are two or three months old, they should be supplied with food at least five times per day, the two extreme meals being given corresponding early and late hours of the day. After three months thrice daily will be found sufficient.

In regard to the rearing of pups solely upon animal food, we may say that, so far as personal experimental knowledge reveals, it is by no means the proper course to pursue. Youngsters thus fed will, if not overtaken by disease, grow to an unreasonable and undesirable size, and having become habituated to meat only, it will be found difficult to induce them to accept of sufficient vegetable food to keep them in anything like proper condition for work. Besides they are more apt to maul or mouth the game they retrieve. All growing pups and adult hunting dogs require more or less meat with their food, but in the case of the former, it is better if the animals if it be in the form of broiled mixed with the mush.—Hallock's Sportsman's Gazetteer.

Muzzling Dogs.—The muzzle is an instrument properly belonging to the Dark Ages, and should be classed with the vise, thumbscrew and rack. Why should it be used when scientists acknowledge that it answers no sanitary purpose, and ineffectually injures the animal, preventing free respiration, and denying to him the privilege of drinking at that season of the year when water is most sought and needed? Four years the writer has collected statistics of the cases of rabies reported through the papers and medical journals, which show that at least three out of every five cases that occurred during that time occurred in the months of October, November, January and February, and not a single outbreak of the disease has occurred in the months of July and August. The August, first designated as hydrophobia, but later proved

ber hysteria, are reported. September shows three cases of doubtful character, one of which is traceable only to a cut, probably developing tetanus, simulating hydrophobia; of another no definite information could be obtained; and the third had been bitten fifteen months previously. With this result before us, we can but consider the muzzle as a mechanical contrivance desirable for vicious dogs, or useful only to prevent dogs from eating or destroying articles with which they may be placed in contact, and to be used at no other time. It also proves to be an excellent shuttler-cock for the Solons who constitute the law-givers of our cities.—*Hallock's Sportsman's Gazetteer.*

AGE.—To tell the age of a dog approximately, examine the upper front teeth. Until eighteen months old these are rounded on the edge; at the end of two years they begin to square off and gradually wear down and shorten, until, when the animal has entered the sixth year, they are nearly even with the gums. The lower teeth usually wear out earlier. The appearance of the eye is also an indication of age, and all dark-colored dogs show their years by the growth of white hairs about the muzzle.—*Hallock's Sportsman's Gazetteer.*

BREEDING OF DOGS.—The following principles should be observed for the proper breeding and rearing of the canine race:

1. A perfect development and sound vigorous health constitutionally, especially in the generative organs, are conditions of fertility.
2. In the maintenance and improvement of a breed the truth that "similia similibus generantur,"—that the reproductive germ will stamp upon the animal developed from it the characters of the parent organism, is the backbone of success.
3. We can, in a great degree, at will, produce variations and improvements in breeds, as by care a mild and salubrious climate, moderate use, education, stimulation, or selection of desirable qualities; by disuse or rejection of undesirable characters and properties; by soliciting the weight of imagination in our favor—as Jacob piously swindled his too confiding father-in-law; by allowing the breeding animals to mix only with those of the stamp desired; by crossing less improved breeds systematically with males of a better race; and by crossing animals faulty or deficient in some particular point with others in which this point is developed in excess.
4. The kenneling of pregnant high-class animals with low bred ones, and the resulting attachments between the two races, are to be especially avoided as occasionally affecting the progeny injuriously; strong impressions from a new or unusual condition of surrounding objects are to be equally guarded against.
5. If a valuable bitch be allowed to breed to an inferior male, she cannot be relied upon to produce pure bred animals for several succeeding pregnancies at least. Through a strong and retained impression; through the absorption into the system of living particles (germinal matter) from the fetus; or through some influence during pregnancy on the ova, then being most actively developed, the good or bad features of the first sire are perpetuated in the progeny of succeeding ones.
6. All breeds have a tendency to "throw back," that is, to produce offspring bearing the marks of their less improved and comparatively valueless ancestors; hence individuals of this kind must be rejected from the best breeds if we would maintain their excellence.
7. Certain bloods and individuals have their characters more fixed, and will transmit and perpetuate them in greater proportion than others with which they may be crossed. If their qualities are desirable, they prove highly valuable in raising other stock of greater excellence; if undesirable, they will depreciate the value of any stock crossed for many generations. That fixedness of type, however, is, above all, a characteristic of those bloods which have been carefully selected and bred up to a certain standard for many generations, so that in the best, longest established, and most esteemed breeds we have a most valuable legacy left us by the successful breeders of the past, with which we may mould our inferior bloods at will.

8. While breeding continuously from the nearest relations tends to a weakened constitution, the aggravation of any taint in the blood, and to sterility, these may be avoided by infusing at intervals fresh blood of the same family, but which has been bred apart from this branch for several generations. Moreover the highest excellence is sometimes attainable only by breeding very closely for a time.

9. Diseased or mutilated animals are generally to be discarded from breeding. Mutilations resulting from disease, disease existing during pregnancy, and disease with a constitutional morbid taint, are, above all, to be dreaded as transmissible.

10. There is some foundation for the opinion that the dog tends to contribute more to the locomotion and external organs, nerve and vigor, and the bitch to the size and internal organs, so that if we cannot obtain the greatest excellence in both, we should at least seek to have each unexceptionable in the parts and qualities attributed to it.

11. Judicious breeding in-and-in, improves the animal in the points desired, only when possessed by both male and female; but the mixing of two utterly distinct races, with the view of uniting the valuable properties of both, is to be condemned.

12. While early maturity may be attained, animals that grow rapidly are less firm in tissue, and break down sooner than those of slow growth; hence, while the breeder may be benefited by pursuing the forcing process, the purchasers, especially of those animals intended for active field work, will be more or less the sufferers. The terms *cultivation* and *improvement*, as used by breeders, too frequently are but imposing synonyms for the artificial induction of disease, premature development, and systematic degeneration.—*Hallock's Sportsman's Gazetteer.*

A DOG'S AFFECTION.—A remarkable illustration of the affection of a greyhound for its master has just occurred at Crews. A few days ago a notorious Crews poacher, named Thomas Blackburn, was sentenced to seven years' penal servitude for nearly killing a policeman near Nantwich. He was the owner of a favorite greyhound, which, in many a midnight poaching raid, proved itself valuable to its owner in the game preserves. Thus a strange but powerful affection subsisted between the man and his dog, and never were they found apart. After Blackburn's imprisonment the actions of the animal became singular. Regularly every day he visited the man's previous haunts, with a wistful look in his brown eyes; and when the shades of evening fell he would lie down under the seat of Blackburn's favorite inn, and there for several hours await the master who never came. The landlord, to his credit, put food before the animal, but laterly it did not seem to eat much. In the afternoon the faithful animal,

like a sentinel on duty, was seen to parade Market street backward and forward, between the corner of Earl street and Victoria street, looking for its master; but he appeared not. Gradually the movements of the hound became more languid, and on Friday night, on Market street, it dropped dead, as one of the crowd said, "of a broken heart at the loss of its master."—*Chester (Eng.) Guardian.*

CANINES MEEK IN SPIRIT.—An Omaha livery-stable keeper owned a fine lot of coach dogs. These dogs are white, with black spots all over them and are noted for their docile, not to say cowardly, dispositions. The dogs belonging to the livery-stable keeper were beset on other occasions by the other dogs in the streets, and, as they were meek in spirit, were as easily overcome as a lot of sheep. The livery-man stood this as long as he could, when, one day he found a large white bull-dog, and it immediately occurred to him what to do. He bought that dog, took him to his stable, and there kept him until he got thoroughly acquainted with the coach dogs. The bull-dog was then sent to the barber's shop, and black spots were neatly painted or dyed all over him, so that he looked like a veritable coach dog, with a somewhat short nose and elongated lower jaw. The next time the carriage was sent out this model coach dog went along, and the street dogs "went for him," thinking they would have their usual sport and victory; but in this they were mistaken; the bull-dog waded in, and the way the hair, guitar-strings and sausage meat flew was a caution. Since that time the coach dogs have been left alone.

—Hartford, Connecticut, is to have a dog show next week.

NAME CLAIMED.—I claim the name of Branch for my red Irish setter dog, whelped Jan. 13, 1877, by Plunkett, out of Stella. E. S. WARDMAKER.

NAME CLAIMED.—I claim the name of Dike R. for my black, white and tan dog whelp, and the name of Lotie R. for my black and white bitch whelp, both out of my blue belton bitch Mell, by Burges' Rob Roy, whelped May 15, 1877. Detroit, Sept. 22, 1877. L. F. WHITMAN.

NAME CLAIMED.—I claim the name of Friend II. for my Irish Gordon pup, whelped April 20. Color, deep red with white markings; out of Geo. E. Poyner's red Irish Gordon, Fan, by the champion, Rufus. Also the name of Bob for red Irish setter pup whelped June 4. Color, "blood red," out of Matthew Von Culin's Moll II, by the Centennial champion, Rufus II. F. A. TREMAINE.

—The brace of dogs advertised for sale in this issue by Mr. Humphreys are about four or five years old, and have been hunted in various sections from Maine to Florida, through Texas and Minnesota. They are valuable animals.—Adv.

## Game Bag and Gun.

### GAME IN SEASON FOR SEPTEMBER.

Moose, <i>Alces malchis.</i>	Black-bellied plover, or ox-eye, <i>Spatularia hutchinsoni.</i>
Caribou, <i>Tarandus ranifer.</i>	Ring plover, <i>Egialitis semipalmatus.</i>
Eik or wapiti, <i>Cervus canadensis.</i>	Silt, or long-shanks, <i>Himantopus nigricollis.</i>
Red or Va. deer, <i>O. virginianus.</i>	Woodcock, <i>Philohela minor.</i>
Squirrels, red, black and gray.	Red-breasted snipe or dowitcher, <i>Macrorhamphus griseus.</i>
Hares, brown and gray.	Red-backed sandpiper, or ox-bird, <i>Cupilonia curtipis.</i>
Red or rice bird, <i>Dolichonyx oryzivorus.</i>	Great marbled godwit or marlin, <i>Limosa fedoa.</i>
Wild turkey, <i>Meleagris gallopavo.</i>	Willie, <i>Totanus semipalmatus.</i>
Pinnated grouse, or prairie chicken, <i>Captiolonia curtipis.</i>	Tattler, <i>Totanus melanoleucus.</i>
Ruffed grouse or pheasant, <i>Dikosa umbellus.</i>	Yellow-shanks, <i>Totanus flavipes.</i>
Quail or partridge, <i>Ortyx virginianus.</i>	

"Bay birds" generally, including various species of plover, sand-piper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets, etc., coming under the group *Limosa* or Shore Birds.

The frequent alteration of game laws makes such confusion that sportsmen are kept quite in the dark as to when shooting on various kinds of game is permitted. We therefore append the following table for reference:

States	Pinnated Grouse.	Ruffed Grouse	Quail	Woodcock.
Ill.....	Sep 1 to Jan 15	Oct 1 to Feb 1	Nov 1 to Feb 1	Sep 1 to Jan 15
Ind.....	Oct 1 to Jan 15	Nov 1 to Jan 1	Nov 1 to Jan 1	July 1 to Jan 1
Iowa.....	Aug 15 to Dec 1	Sep 12 to Dec 15	Oct 1 to Jan 1	July 1 to Jan 1
Mich.....	Aug 14 to Oct 1	Sep 1 to Dec 1	Sep 1 to Dec 1	July 3 to Nov 1
Wis.....	Aug 15 to Nov 15	Sep 15 to Jan 1	Sep 15 to Jan 1	July 4 to Nov 15
Neb.....	No Shooting	No Shooting	No Shooting	No Restrictions
Kans.....	Aug 1 to Feb 1	"	"	"

### LAKE KOSHKONONG.

I HAVE seen Lake Koshkonong, Wisconsin, mentioned several times in your columns as a famous ducking point, but I was quite ignorant that it had any other attraction for sportsmen until within a few days, when I was fortunate enough to visit it. I had been spending some time at Geneva Lake, Wis., where I went expecting to find good fishing, but was doomed to disappointment. While there I chanced to meet Mr. Richard Valentine, the Secretary of the Black Hawk Club of Lake Koshkonong, and upon his invitation I visited the club house. We landed from the cars at Fort Atkinson, about ten o'clock on a bright moonlight night in August, where we found a carriage awaiting us, and after a drive of some four miles down the river, passing through beautiful groves and across extensive meadows we arrived at the club house and were soon snugly in bed.

Next morning I was out early, and must say that I was pleased with my surroundings. The house, a two story Gothic structure, with ample room for forty guests, stands in a beautiful grove of elms and maples close to the bank of Rock River, and has an unobstructed view from its piazza for three

miles. The river flows into Lake Koshkonong about a quarter of a mile below. The land on each side at the mouth is heavily timbered and forms two long points which jut out into the lake and form two immense bays.

One of these bays is only a few rods back of the club house and is being connected with the river by a ditch navigable by small boats. I just had time to make these few observations when we were called to breakfast. Here we were miles from any house, and the steward not expecting company; but did we fare poorly? Judge for yourself—broiled prairie chicken and toast, baked potatoes, hot rolls, coffee and plenty of rich milk. Marckres, the steward, apologized for the "meagre" fare, and said had he known of our coming he would have killed some woodcock for us. After breakfast we took a sail across the lake and then I saw what made it such a famous resort for carvas-back duck. It—the lake—is some seven miles long by two and two and a half wide, and nowhere, I judge, over four or five feet deep. The upper half is one vast bed of wild celery, and the lower is fast filling up with it. Marckres says the canvas-backs come in greater numbers each year. All other varieties of wild fowl also frequent the lake, but the canvas-back is the one most sought.

Up to 1876, suckab boats were very extensively used in pursuit of the birds, bags of over 100 being frequently made. This tended to drive them away, and it was prohibited by a special law during the winter of '75 and '76, since which time shooting from blinds over decoys has been very fine. I saw scores of from 10 to 75 canvas-backs made by different parties in one day.

We lunched at a house across the Lake on yellow biscuit, cornbeef so salt and hard that our dog refused it, and such tea! What a contrast to our breakfast. We left as soon as possible, and put back to the Club House. When Marckres and Valentine took their guns and went after woodcock, returning in a half an hour with three brace of as fine birds as one could wish for, all shot within sight of the house on ground where Marckres says he has killed a hundred since July 4, and will kill as many more before the season is gone. He tells me that W. H. Van Giesen, formerly of Whitewater, Wis., killed 66 birds on these grounds on the afternoon of July 4, 1871. Then he told me of bagging hundreds of snipe, prairie chickens, quail and ruffed grouse, and during the afternoons of two days catching 64 blaek bass that averaged three pounds each; and again of 28 bass he and Valentine caught one morning before breakfast, in the river almost in front of the house.

These Black Hawk Club fellows have been enjoying this for years, but hereafter I propose to have my share also.

The next day was Sunday, and we spent it mostly in the shade of the trees, dining upon broiled woodcock.

Monday morning I returned to the city much pleased with my trip.

The Black Hawk Club is limited to thirty-six members, but at present it has but 31, five of its shares being still for sale to the right kind of gentlemen. The shares are only \$36.00 each, with an annual assessment of \$5 to keep the house and grounds in repair. The officers are, Geo. W. Estery, President; C. E. Jenkins, Vice President; C. S. Jackman, Treasurer and Richard Valentine, Secretary. The Secretary's address is Englewood, Ills. Prominent in the list of members, I noticed the names of Hon. Thos. A. Logan (Glean), of Cincinnati, and Col. L. A. Harris, Pres. of the Cuvier Club of Cincinnati, and N. S. Choteau of St. Louis.

The club controls very extensive grounds, keeping off all pot-hunters and campers. Any gentleman who loves shooting of all kinds could not do better than become a member.

H. A. S.

EQUITY TO RECAPPER.—"Bonnie Blue Flag," in the FOREST AND STREAM of June 7, quoted "Recapper" as holding that "snap-action guns were an abomination," and to this I took exception, and gave some of the reasons why I considered the top snap-action as made by Messrs. Purdy, Scott & Greener, superior to all others. "Recapper," in the issue of Aug. 16, says B. B. F., misquoted him, that he had always admitted the merits of the snap-action. If B. B. F. misquoted him, why did he not correct the matter, and not leave your readers to believe that he held all snap-actions "an abomination."

I dislike newspaper controversy as much as "Recapper" does, but I cannot endorse all his theories. He says in an article published Sept. 3. "There is not in the world a gun-maker who can build to sell here at a profit a thoroughly, sound and reliable double barreled breech-loading shot gun, no matter how plain the finish, for less than \$100 currency. How in the world any one who can read and inform themselves about such matters can think differently, passes my humble comprehension." In FOREST AND STREAM of Sept. 13, he says, "It gives me pleasure always to recommend the work of the Tolleys." If it is impossible to sell a reliable gun for less than \$100 currency, how can "Recapper" always recommend the work of the Tolleys, when those gentlemen for years have been selling their "Pioneer" gun in New York at \$65, gold. Either the Tolleys have been selling guns at a loss, or "Recapper's" theories are incorrect. Now I own one of Tolley's "Challenge" guns, and it is a splendid hard shooter, but I cannot agree with "Recapper," that "The Tolleys are the only reliable makers in Birmingham." I will challenge "Recapper," or any other champion of the Douglal gun to shoot against my 12 bore, 8 lb. Greener, with a Douglal of same bore and weight. It is true, Greener makes guns for the "trade," which "Recapper" says the Tolleys absolutely refuse to do, and that that fact should go far toward recommending their guns to sportsmen. But what would "Recapper" have that large class of sportsmen to do, who cannot afford to pay \$100 or \$150 for a gun made to their especial order. Is it not folly to talk in that way. Cannot guns for the trade be made as reliable as guns made to order? Every sportsman in the United States should thank Messrs. Remington & Parker, on this side, and Messrs. Scott & Greener at Birmingham, for their efforts and success in producing a reliable gun that can be had at from \$50 to \$75. I remember a double-barreled muzzle-loader that I used twenty years ago with success, that cost only \$18, and is as good to-day as ever. "Recapper" appears to be writing in the interest of Douglal and his Lockfast, (with now and then a second-hand compliment to Tolley), which he has a perfect right to do, if he chooses; but he has no right in my judgment to use every opportunity to discriminate so unjustly against American guns, and those makers of Birmingham, who have done so much for our sportsmen in the way of cheap and reliable guns. No, Mr. "Recapper," if you want to assist Messrs. Douglal and Tolley, "write up" their guns all you choose, but don't try to build them up on the ruins of others. There are as good guns sold to-day by Messrs. Remington, Parker, Scott, Greener and Tolley, at from \$65

to \$75, as any sportsmen need use. I prefer the finer finished guns of Tolley and Greener because I have more pleasure in their use, and not because they are any more reliable. *Ecruy.*  
Pittsburg, Pa., Sept. 16, 1877.

**A "WAD BOARD."**—There appeared in your columns some time since a description of a loading block with wad board attached. I made such one about five years ago and found it very convenient, but you have one still more convenient, and at the same time thinner and lighter. It consists of a separate wad board which is placed on the shells after they are inserted in the block, which is simply an ordinary loading block about one inch thick, with a hinged bottom one-half inch, making the entire thickness about two and one-half inches.

The objection to the old block is that it must be made about four inches thick to take in the longest shell, and when shorter shells are used there will be a gap between the shoulder and the shell; while with the separate wad board, whatever the length of the shell, the shoulder rests directly upon it. Such a wad board may be made for any loading block, provided the holes are far enough apart (about one-fourth inch) to admit of the necessary flaring on the upper side. For boring I use one of Clark's expansive bits, which, by the way, is equal to a whole set of augur bits. After having marked the holes so that they shall correspond exactly with those in the loading block, the bit is set to bore a hole the size of the outside of the shell, and all the holes are bored about three-eighths of an inch deep to the shoulder. The bit is then set to bore the exact size of the wad, and the holes are continued through the board. They may then be flared with a fluted reamer. The holes are flared underneath, so that the wad board may settle at once on the shells without making it necessary to feel around to get it in the proper position. *CUVIER.*

**CONNECTICUT—Higganum, Aug. 24.**—Rail shooting on the Connecticut River is good this season. Two gentlemen bagged 50 one day last week, in about an hour and a half shooting, and again a day or two later they scored 45, which is good considering the continual warfare made upon these birds here. The birds were found some six miles down the river, where there are large fields of wild oats, which furnish splendid feeding grounds for rail, and also natural haunts for duck; but being easy of access, so much shooting is done there that ducking is very poor. Large bags of rail have been made all along down the river from here to Saybrook, at its mouth. There are about the usual number of quail. Expect to have some sport the two first weeks in October, but it won't last long, as there will probably be ten guns to one bird. *C. O. G.*

**Hartford, Sept. 24.**—R. L. Hungerford shot eighty-seven rail during two days' sport at Chester, recently.

**NEW YORK—Elizabethtown, Sept. 16.**—Deer are unusually plenty here this season; they are feeding on my early sown rye every night. Partridges are more plenty than usual, though in the thicket as yet, on account of dry weather. Pigeons are around the grain fields in great numbers. *BRADLEY.*

**PENNSYLVANIA—Greenville, Sept. 20.**—Pheasants are reported to be very plenty in this section. Squirrels are nowhere to be found in this locality. There are reports to the effect that quail are quite plenty. The sportsmen at their last regular meeting elected attorney for the club A. P. Henlin; Ex-President S. S. Hewitt and M. Hargen Brooks, Sec., delegates to the State Association for the Protection of Game and Fish, which is to be held at Pittsburg, Oct. 9, 1877.

—The season for deer opens Oct. 1, and there is promise of very fair sport throughout Clearfield county and those adjoining.

**KINSEY'S ASHLEY HOUSE—Barnegat Inlet, N. J., Sept. 21.**—Bay birds not plenty, although Oscar B. Smith and Friend, of N. Y., have just shown a bag of 40 odd that they scraped together on North Beach. Black ducks increasing. *B.*

**SOUTH CAROLINA—CHARLESTON'S NOVEL STAG HUNT.**—Some Charleston sportsmen recently conceived the idea of getting up a stag hunt on the Washington race course, near that city. The project was received with enthusiasm by sportsmen throughout the county, and the affair as described in the *Charleston News and Courier* was certainly a brilliant affair. Choice dogs from choice packs were selected and entered for the sport, and excitement ran high as the day drew near for the test. Planters left their crops and came from fifty miles around in buggies, on horseback, muleback, and, in fact, as best they could. Sportsmen came up in style, looking wise and exchanging dog talk as they grouped around the dogs and passed upon their ancestry, their bottom, their speed, etc. The chase was to begin at 4 P. M., and by 3 o'clock the ground was thronged with horses and vehicles of every description. A grand pack of thirty-two dogs was entered, elaborate rules drawn up, judges and umpire selected, the stag was turned loose, and the four regular whippers-in rode out into the track and sounded the signal horns. The dogs grew wild at the welcome sound, and the crowd fairly boiled over with excitement and began climbing over each other in their wild effort to get a good place. For fully twenty minutes dogs and riders scoured the course without jumping the game, and the crowd waited impatiently, looking on at nothing. After a great many false alarms, the musical baying of the pack and the excited riding of the riders proclaimed the fact the trail was growing warm and that the fun was not far off, when, to the dismay of all, it was discovered that the deer could not be persuaded to look upon the dogs with other than friendly eyes—in other words, he wouldn't run at all. When first jumped he ran about twenty steps, and was then pulled down by Mr. Dubbley's dog Ball. The dogs being whipped off the noble stag ran a few feet and tried to climb a fence. Finding that required too much exertion, he laid over on his back after the style of a naughty poodle and held up its legs supplicatingly. Every persuasion imaginable was used, but the stag wouldn't run, and was finally ignominiously dragged back to his cage by the hind legs by two men. This operation furnished the greater part of the crowd with their first sight of the deer, and when the animal was caged they crowded round and feasted their eyes upon him as if they were looking at an anthropophagus.

**TENNESSEE.**—According to a correspondent of the *Nashville Rural Sun*, squirrels have become a pest in Sullivan county, and the farmers are compelled to keep up a continuous fusillade against the invaders of their corn fields.

**LOUISIANA.**—Reports from the upper river parishes in Louisiana are to the effect that wild game, such as deer, bears, turkeys and a smart sprinkling of panthers, is more abundant than for many years. There is a good outlook for sportsmen all over the southern Mississippi Valley.

**TEXAS—Avartin, Sept. 13.**—Our shooting season is close at hand, and some are getting their hands in on the plover, which are very numerous, but so loaded down with oil is hardly to be catable. *J. B.*

**WILD RICE.**—In response to numerous queries regarding wild rice, we publish the following:

**OHIO—Toledo—Mud Hen, Cedar Point, Sept. 20.**—There is no wild rice in this market, and I am unable to give you the price per bushel. The wild rice crop in this region is pretty much harvested by wild fowls, and the only place where it is gathered in any considerable quantity is at the head of Lake Superior, where bands of the Chippewa tribe of Indians collect it for their winter's food. I have written to a friend at Sault Ste Marie for information, which, when obtained, I will forward to you. The Mud Hen is now in commission, and will be happy to entertain you or your friends of the F. & S. and R. & G. at any time. Very truly,  
*EMERY D. POTTER.*

**AN OLD GUN.**—While engaged in logging near Schena, Mich., Mr. Chas. Hastings discovered at the side of a large ash stump a hollow piece of iron, the end of which had been exposed about two inches by the burning of the leaves and rubbish around the stump. Digging down by the side of the stump he found it to be the barrel of a gun firmly imbedded in the roots of the stump, which had grown around it. In getting it out the barrel was broken near the centre, where it had become very much rusted. It is about two feet longer than the modern gun, is "eight gauge" at the breech, large, smooth bore, and resembles an old-fashioned French flint-lock fowling piece. Neither the lock nor any traces of the stock were found. Occupying a horizontal position, about sixteen inches below the surface of the ground, and almost directly through the centre of the tree, with ends protruding on either side, it is evident that it must have been dropped there, either before the tree took root or while it was very small, as it was within an inch and half of its heart, and the growth of the tree shows a century and a half since it began encircling the gun. —*Portland (Mich.) Observer.*

**ILLINOIS—Lebanon, Sept. 21.**—Quail abundant this fall; found in coveys containing from 25 to 30 birds. The law of this State now prohibits quail shooting till Nov. 1st. Last spring and summer were favorable for prairie chickens here, and several fine broods are reported in the north-eastern portion of this county. We have no ruffed grouse or wild turkeys to afford any sport. Wood ducks are common, and mallards are just beginning to come in. *W. L. J.*

**DUCK SHOOTING ON ST. CLAIR FLATS.**—Speaking of the action of the Canadian Government in leasing the shooting on the St. Clair Flats, and the southern end of Walpole Island, to an association known as the St. Clair Flats Shooting Company, a year since, the *Sarnia Observer* explains as follows:

We have reason to believe that the whole action of the Government in relation to this matter has been taken in behalf of the Indians, and for the purpose of securing to them some compensation for the game which the locality produces. Previously, the shooting in question was trespassed upon with impunity by people from all quarters, the United States as well as elsewhere, who plundered it of the game without respect to the laws passed for its preservation. By the lease a right was given to the company to occupy the territory, and charge a fee not exceeding \$10 a week from all parties wishing to shoot thereon, on payment of which for one or more weeks, permits were given, which gave those holding them the right to shoot for the time therein stated. So far as the Government is concerned, they derive no revenue whatever from the lease. The Indians get the whole amount. The company, however, have found it somewhat difficult to prevent trespassing on their privilege; and some weeks ago they made arrangements with detective Wm. Smith, well known in the country, to look after their interests, giving him full power to take all necessary steps to prevent trespassing. This he has been able to do without any difficulty, parties who came to the place disposed to dispute the claim of the lessees having in all cases given way after a little calm explanation and remonstrance on the part of Smith, and either accepting permits or leaving the ground without any difficulty occurring. The practice followed by the company is to exact this rate of fee from all parties wishing to obtain shooting privileges. If at the close of the season the amount realized from the sale of permits is more than sufficient to pay the rent and other legitimate expenses the surplus is divided amongst those who paid it; if it is not sufficient for these purposes, then they must make up the deficiency.

**INDIANA—Sept. 22.**—Just at this time Harrison County and some portions of adjoining counties are being overrun with squirrels. They are daily crossing the Ohio from Kentucky, and seem to be extending themselves across the country in a northward direction. There was a similar but greater migration in 1833.

**KANSAS—Atchison, Sept. 19.**—Chicken shooting has been very poor in this part of Kansas thus far during the season, owing to the continued rains in the early spring and the late burning of the grass; all of the first sittings of eggs were destroyed. Our club has just returned from its annual hunt of a week, and found but very few; 500 chickens was the sum total for a party of ten. Quail are very plenty; as they nest in hedge rows and brush, the fires did not destroy the eggs, and as but very few were killed last winter, they are therefore unusually plenty, and will afford fine shooting as soon as the season opens—Oct. 1st. There is also a very fine prospect for ducks and snipe; the latter especially, and 100 per day is not unusual for a good shot. *H. B. B.*

—Capt. Ducaigne remarks in a late letter that near his homestead and shooting box in Nobles County, Minn., two neighbors lately got one shot each at a fine elk, but failed to bring it down. It is seldom that elk are now seen on the plateaus that elevated and beautiful region.

**CALIFORNIA—Santa Barbara, Sept. 26.**—Deer shooting good all about here.

**Humboldt Valley.**—Deer, geese, ducks and the several varieties of water fowl are in the greatest abundance.

**SPORT IN DAKOTA.**—In a former communication I asserted that "our prairies teem with chickens, plover and curlew, etc." I told only the truth, as many a good bag brought home since the season opened abundantly proves. The new law is an ad-

mirable one, and has already borne good fruits in mercising the game. Captain L. and myself, with "Sport," rode out on the prairie a few days since, and picked up about twenty chickens in driving about three miles, and then took a turn about an old lake bed or prairie pond nearly overgrown with high grass. Not a duck could be seen, but upon discharging a gun out from the grass arose probably fifty mallard. We left our wagon, the Captain taking one side, I the other, and in a few minutes dropped five or six splendid mallard ducks about two-thirds grown, fat as butter. Last Thursday we started for a day's hunt with two dogs. We killed nearly forty chickens and a jack rabbit, in spite of the fact that most of the coveys were on stubble, and wild as hawks. They seldom lay to the dogs, and most were killed outside of forty yards, which, considering that the wind blew a gale, I consider a fine bag. Persons need not expect to kick the chickens out of the grass at this season, but will have to shoot at long range and hunt if they expect success to crown their efforts. Early in the season, say the middle of Aug., while the birds are young, after a covey has been once flushed, if you can find them with your dog a second time, nearly the whole covey may be bagged, as they will crouch in the grass, and not stir until close upon them. I cannot understand why it is that a dog will run over a prairie chicken at times and not seem to get the least particle of scent from the bird. In fact I saw both of our dogs run right upon a whole covey and flush them up, and drop as though perfectly astonished. Again, I have flushed up a bird where the dogs have ranged backward and forward, apparently not getting any scent. I almost concluded (as some of your correspondents have held) that prairie chickens withhold their scent. Our dogs are both fine ones, and I cannot think them altogether at fault. Can you explain the reason? Ducks are becoming very plentiful although their autumnal flight from the north has not yet commenced, but when the season fully opens look out for feathers.

The FOREST AND STREAM comes a welcome visitor in this strange but most beautiful land. Long may it tarry. *J. E. WEST.*

Yankton, Da., Sept. 17, 1877.

**SPORT ON VAN COUVEE'S ISLAND.**—A correspondent sends us the following extract from a private letter of Mr. J. Wilford Webb, who has been on a hunting expedition in the Northwest:

I have just come out of the bush. Part of the time I was by myself, later Captain M. joined me. We each had our Indian, and hunted separately, but camped together. I had Edwards' old guide, the Indian Sku-Jack. I killed a splendid bear, one of the largest that has been killed here for many years. For a whole week I carried my rifle under a broiling sun without getting a single shot. Afterward we got into a better country, and killed several deer; the bucks large, but does small. I never worked so hard in my life, up every morning at 3:30 A. M., hunting through the most infernal country you can imagine, till mid-day, then breakfast and sleep near sundown, when we hunted for a couple of hours. The walking is awful—all mountains, valleys one mass of underbrush so thick that at times you must cut your way through; fallen trees and half-burned timber abound. My first shot at the bear was one hundred yards; could not get a clear shot, but took my chance, struck him above the heart through the lungs. He jumped about six feet in the air and made right for me. My second shot broke his back, but again he came on. I didn't know how small and how low down a bear's heart lies, so again shot him in the lungs. Sku-Jack then slipped the dog which partly took up his attention, and turning his head round, I got a shot just behind his ear which felled him ten paces from my feet. He looked very savage, his little eyes twinkling like two balls of fire, blood pouring from his nose, while his growling as he advanced was well calculated to distract my aim. My rifle has terrible penetration, every ball going through him smashing all before it. You would hardly believe what tenacity of life they have; any one shot would have killed him, but he was rather too near to be agreeable company. I have killed any quantity of blue grouse and other small game. Friday I go to Mainland, 400 miles from here, and expect splendid sport on deer and chicken. *Esquimaux, Van Couvee's Island, Aug. 26, 1877.*

—Two miners, J. H. Ritchie and W. F. Zambro, while crossing one of the California Water Company's flumes on the new South Fork ditch, two weeks ago, saw an enormous bear in an angle of the flume, walking on the foot board and coming toward them. Zambro had a two-barreled shot gun, loaded with buckshot, and two dogs were behind them. A fight was inevitable. The bear came on his hind legs toward Ritchie, and when the man was almost within the brute's hug Zambro fired and knocked the animal off the flume. Ritchie jumped off and, picking up a piece of scantling, began to pound his hearship on the head. A back blow of the scantling brained one of the dogs, which had come to Ritchie's aid. Then the bear, only slightly wounded, gave Ritchie a rough and tumble fight, although harassed by the remaining dog. Meanwhile Zambro had managed to climb into a tree, carrying his gun. He fired the remaining barrel, missed the bear, narrowly missed Ritchie, and killed the dog. Seeing his critical situation, Ritchie got out of the bear's embraces, and by a desperate effort pushed the animal over a bluff forty feet high. The fall killed the animal. When dressed it weighed 784 pounds. Through the right ear was a bullet hole made by some hunter. Ritchie lost coat, vest, pantaloons, shirt, and most of his hair. —*Ex.*

## PIGEON MATCHES.

**CONNECTICUT.**—Somers.—Bashni H. Pease, recently of Somers, and a brother of Dr. L. H. Pease, of Thompsonville, has been doing some tall shooting out West. At a shoot at Atchison, Kansas, he killed every one of a string of 24 birds at 26 and 31 yards score. Another man from St. Joseph, Mo., made the same score.

**OHIO—East Liverpool.**—A glass ball match took place here Sept. 17 between S. J. McCartney and Wm. Blover for the championship of Columbiana Co., at 18 yards rise, fifty balls. Won by a score of 48 to 38, by Mr. S. J. McCartney.

**BOGARDS IN CINCINNATI—Cincinnati, Sept. 21.**—Capt. Bogardus gave an exhibition at the Highland House, City, this P. M. at 2 o'clock, in which amateurs participated. Tonight, 10 P. M., he has just finished a shoot, in which he attempted to beat his best time—that at Lincoln, Ill., last July—at 1,000 glass balls. Baum, timekeeper, made him break 1,000 balls in 77m. 25s. but by the ordinary watch of Maj. Cham-

berlain, of the Enquirer, the time was 74 minutes. This was his time to-night:

Table with 3 columns: Shot number, Pellets per ounce, and Pellets per cubic inch.

Powder used was Dittmar, with a slight admixture of black. Gaslight not quite as good as it should have been, and traps did not work quite satisfactorily.

KENTUCKY.—Louisville, Sept. 15.—The prosperous and growing Louisville Gun Club held a meeting last evening, at which the following officers were elected: President, J. V. Cowling; Vice-President, J. Griffith; Secretary, W. H. Stanley; Treasurer, E. Y. Peak.

TEXAS.—Waco.—The Waco Gun Club shot their fourth match on the 15th. Terms; 60 double glass balls, Bogardus rules.

TO SPORTSMEN AND DEALERS IN SHOT.

At the Convention held at Batavia, N. Y., June, 1873, by the "N. Y. State Sportsmen's Association," a standard of sizes (diameters) for shot was adopted, to be known as the "American Standard," commencing with No. 12, to measure 5-16 of an inch, and ending size increasing 1-100 of an inch to the largest.

The following table will show the difference between the actual number of spherical shot of given diameters required in each ounce, as compared with the assumed number, and that the number of pellets in an ounce of such shot cannot bear the proportion there assumed, and still claimed by some parties.

Table comparing Standard Diameters (inches) with Number of Pellets in an ounce and in a cubic inch. Columns include Standard Diameters, Number, and Pellets in an ounce/cubic inch.

It will be seen by the above comparison that this assumed number of pellets to the ounce, shows an irregular increase, and proves at once that it is incorrect. The increased number of pellets from BBB to B, being less than from T to BBB.

Many inquiries from sportsmen, as well as misrepresentations made by some parties who do not make shot up to the standard, induce us to offer this explanation. When the "American Standard" was agreed upon, we at once adapted our machinery to its manufacture.

ing shot is to prevent the leading of the gun! and that if it were possible to attach an appreciable surplus quantity to the surface of the shot, it would be the best possible security against such leading.

If the allegation were true, our shot would be lighter than other shot carrying less plumbago, by the great difference between the specific gravity of plumbago and of lead.

Answers to Correspondents.

No Notice Taken of Anonymous Communications.

J. McA., Philadelphia.—Can tell nothing from your description. H. G., Third Ave., City.—Quail shooting will open on Long Island November 1.

F. C. P., Lowell, Mass.—Ans. You had best advertise in our columns, and will thus be accommodated. We know of nothing of the kind at present.

J. W. F., Cockeysville, Md.—You will find the desired information in "Hallow's Gazetteer." We have no knowledge of the parties you ask about.

A. B. C., Boston.—What rifles did N. Washburn use in the "Spirit of the Times" match and Mr. Selph in the "Wimbledon Cup" match? Ans. Remington rifles.

C. H. M., Rockville, Conn.—When does the woodcock and partridge season open in New Hampshire? Ans. Woodcock, 4th of July; Ruffed Grouse, 1st of September.

BIRD SHOT, Spotsylvania Court House, Va.—You probably sent the larvae of some insect fir, they had made their way out of the envelope before receiving.

F. S. C., Cleveland, O.—Middle of October I make a business trip to Clark Co., Wisconsin, and propose to take a few days' hunting. Would you take rifle or shot-gun? Can deer be shot in Oct. in Wisconsin? Ans. Use shot-gun. Yes.

S. B., Fall River, Mass.—Please inform me where to get wild rice for sowing in a pond somewhat frequented by ducks. Also best time and manner for sowing the same. Ans. See game bag and gun column.

J. M. C., Waterbury, Conn.—Does it injure a fine gun to use chilled shot in it? In target shooting is any position standing without artificial rest of hand? Ans. 1st, No. 2d, Yes.

H. W., Bath, N. Y.—I have a "Thomson" duck shooting coat which has faded and now is a light yellowish brown, too light for shooting, as the birds can see me too far. How can I restore its color? Ans. Send it to any good dyer. It will take several days, however.

C. M. S., Laydville.—Do the N. Y. State Guards use a Remington military rifle of 43 or 50 cal., and are the military arms used at 500 yards ordinary or special military arms? Ans. N. Y. State model is 50 cal. used at all ranges over which military practice is carried on.

A. H., Detroit.—1. What shaded front-sights were used by the members of the American and British teams in last week's match? 2. Will your long-range rifle book have this match added to it shortly? Ans. 1. Open-head sights were generally used. 2. Yes.

MUSQUITO, City.—I am in the habit of shooting near Barnegat every fall, but have found the mosquitoes so bad that they have driven me away. Can't you recommend something that will prevent their attacks? Ans. Equal parts of lard and oil of tar is efficacious. Also pennyroyal and olive oil.

R. H. L., Raleigh, N. C.—Will you give me your opinion of the new breech-loading shot-gun recently brought out by William Read & Sons, 13 Faneuil Hall Square, Boston, which they sell for \$50? Ans. They are one of the oldest and best houses in the U. S. Write to them and you will be fully satisfied.

VIRGINIA, Boston.—Having seen good reports of gunning in Virginia, I desire your advice. 1st. How does Sussex county compare with the other counties for game? 2d. What size shot is used for wild turkey? Ans. 1. Good; go to Littleton, Md. No. 8. You want a copy of "Hallow's Gazetteer." It answers all such questions.

R. K. D., Rochester, N. Y.—Where can I go during the month of October with my family and find good shooting, either quail or duck, or both, at a distance not exceeding three hundred miles from this city; must have good accommodations? Ans. Star Island House, St. Clair Flats, Mich. Quail near Algonac.

A BOY READER.—The President usually selects the sons of officers of the army or navy for the cadetships to West Point which he fills. The candidate must be not over twenty years of age. A boy without influence cannot obtain the appointment. You had better apply to your Congressman, who appoints after a competitive examination.

WACO, Waco, Texas.—According to Bogardus Glass Ball rules does it require two judges and one referee or is it a referee and no judges, or in other words, does it require more than one man to decide if the ball is broken or missed? Ans. Two judges and one referee is common, but there is no rule to compel this number. Many matches are decided by one referee alone.

D. M. M., St. Denis, Pa.—A setter of mine who has had, for a long time, a canker in his ear, has suffered lately from a swelling on the flap of the same ear. It is on the inner side of the flap, and when opened, discharged a large amount of thin blood; it has since swollen again. What is the remedy? Ans. Give Donovan's solution as per "Hallow's Gazetteer," and apply iodine of cadmium ointment.

L. B. A., Daocath.—1. My liver-colored pointer whelped two black greyhounds (English). Will her future progeny by a pointer sire be affected either in quality or color? 2. I notice since she whelped that occasionally a serous bloody matter—sloughs from the vagina. What course should be pursued to correct this? Ans. 1. If this is first litter the probabilities are that all her puppies hereafter will bear our marks. 2. The discharge is natural. She needs no treatment.

G. H. W., Cornwall, Ont.—Would you be kind enough to inform me what you think of the enclosed sample of shot? I sent to Montreal for a bag of No. 8, chilled shot, and this is what they sent. It is marked on the bag: "Waskers, Parkers & Co.'s Patent Shot, Chester, No. Eight." Ans. The sizes of English and American shot are different; the shot you inclose is part No. 8 and part No. 9, with now and then a 7. This should not be so.

C. J., Matawan, N. J.—Please to state the cost of an outfit of a member of the National Rifle Association; that is, gun, uniform, if any, etc. Also, expenses he must bear by becoming a member of the organization? Ans. \$50.00 per year dues, and 50 cents per hour for marker's services at target. No uniform required. Cost of gun from \$50 to \$100, depending on style desired, whether short, m. d. or long-range.

A. S., City.—What part of Arkansas is best for game, and which is the nearest and most convenient way to ship the same by rail to the market in case we should be fortunate enough to capture any, and would you advise us to take any ammunition with us or buy it there? Ans. Game is plentiful throughout the State. Newport, Jackson county, would be good headquarters and furnishes excellent facilities for shipping. Ammunition can be had there.

I. J. B., City.—How can I reach J. R. Bradley's at Eldred, Sullivan Co., N. Y.? Ans. The day line Erie R. R. leaves New York City 10:45 A. M., reaches Shohola 4 o'clock P. M. Night express leaves New York City 7 P. M., goes far as Port Jervis, then take the Emigrant only twenty miles to Shohola. As the express does not stop, notify Bradley of the train and the day and he will send carriage to meet you. His house is six miles from Shohola over a good road.

A. W. G., Nashua, N. H.—In your reply to my question, if it was lawful to fish trout, Salmo fontinalis, in the lake of August 23, I think, you said that there had been an amendment to the old law which prohibits fishing trout from September 1 to April 1. I notice that among the fish that are now in season—September—you head the list with trout. Are you right now, or were you in your reply? There is a fair share of grout in this vicinity. Gray squirrels reported plenty in the towns adjoining, but the weather has been so hot few sportsmen have been out. Ans. There are different laws for different States. Trout are in season in Virginia and some other States.

G. L. A., Savannah, Ga.—Can you tell me what to do for my pointer dog? With the past two weeks a lump came on his hind leg like a large wart, as big as a fibert. It looks a little sore, but does not seem to worry him much: it is quite hard, but is not attached in any way to the bone. To-day I notice another one coming on the other thigh. Otherwise he is in perfect health. I am giving him sulphur, but can find no mention of any such disease in Dinks, Mayhew and Hatchinson. Ans. We are unable to answer from your description. Please state the anatomical situation of the lump as closely as possible, and give general conditions of the animal as to health. Dinks, Mayhew and Hatchinson is of no value whatever so far as the treatment of diseases of the dog are concerned.

T. K. C., Brainerd, Minn.—What can I give my three-months old pointer bitch? She has a number of places on her denuded of hair, and when I brush her I brush off lots of white dust like dandruff. She seems bright and frisky, appetite good, hair glossy, eyes bright. Feed her on kitchen scraps and corn meal; have not given any medicine. Has a good place to stay in—large yard with kennel full of fine shavings. Ans. 1. Sulphur of potassa 1 oz., water 1 pint, solve. 2. Muriatic acid 1 oz., water 1 pint, mix when ready to apply. Mix equal parts of Nos. 1 and 2, and sponge the animal thoroughly. Also brush his coat once a day after rubbing thoroughly with French chalk. You may have to use some alterative treatment as well. Are you sure it is not a case of Trichosia furfuracea?

ALSACE, Saint Paul, Minn.—In February last my two-year-old setter was taken ill; quick breathing, perhaps not less than one hundred respirations per minute, a pulse no less slow, good appetite, ambition and spirit, eyes clear, nose moist and cold. After three months he began to reduce in flesh, and as he attenuated his breathing became slower. Suddenly, on his right fore-shoulder, there appeared a deep hole as round as a bullet hole, another on his flank near the tail. Those sores soon spread and became large and angry looking, and more shallow. When they appeared, he seemed to get better of his former trouble, they have now nearly healed and his coat is better; he shows no spirit or much appetite, every rib can be counted on him, and he shows within the last few weeks a very large belly. Ans. We should judge from the symptoms that the trouble is Psoriasis canina. See "Hallow's Gazetteer." Your description is hardly full enough to decide by.

R. L., Stoughton, Mass.—Please prescribe for my pnp. He is five months old to-day; have given area nut for worms and emetics for distemper; the emetic consisted of tartar emetic and calomel. Eye inflamed, coat in fair condition; tongue coated and lips white. The flanks drawn in, being very poor. About 25 respirations per minute, and making rather hard work of it; bowels loose and urine yellow, and at times quite thick; appetite variable, but generally poor; think he shows no signs of fever; has been kept in a warm back room of my house, but has not had much exercise. At times he is very uneasy, continually moving about; but when lying down will get himself into some very awkward positions. His right eye and nostril discharge, most of the time, a white mucus. By answering the above questions you will greatly oblige. Ans. Calomel 3 grs., podophyllin 1/4 gr., extract of colocynth 3 grs.; give at one dose at night. In the morning a dose of Rochelle salts. Then quinine 9 grs., Leptandrin 7 grs., podophyllin 1 gr., rubarb 20 grs.; mix and divide into ten powders; give one every four hours. Also, acetate of potash 2 1/2 drs., fluid extract balsomy 2 1/2 drs., fluid extract eupatorium 5 drs., fluid extract gentian 1 oz., Squibb's sweet spirit of nitre 1 oz., water to make 8 ounces. Dose, teaspoonful three times a day. Pay strict attention to cleanliness, and give plenty of exercise in open air. Give him an out-door kennel and stop pampering him, allowing only plain and nutritious diet.

—Among our new advertisements this week will be found that of Messrs. T. Steele & Son, of Hartford, Conn. This establishment, which was founded in 1836, and is now under the admirable management of Mr. T. Sedgwick Steele, is one that would do credit to any metropolitan proprietor; indeed, there can hardly be its equal or even rival in New England, out of Boston. The store and all its furnishings are of the choicest character and exceedingly tasteful in style, embracing the latest and most elaborate devices for displaying a fine stock of goods. The stock itself is superb and complete, almost beyond description. Mr. Steele is a strong advocate of field sports, and of fish and game protection, and has woven into an elaborately illustrated catalogue of his stock the game laws of his native State. Mr. Steele wrote in this paper last spring a series of very readable articles on the "Hangleyle Lake Regions, Maine," and was also represented at the last National Art Academy Exhibition by three paintings of brook trout, which were "hung on the line," a pleasing compliment to his skill as an artist.

HARTFORD DOG CONVENTION.—The Hartford "dog-law" is off to day, and the six months' bondage of the dogs in muzzles will be exchanged for canine freedom. Unlike their superiors of the genus homo they will not celebrate the joyful day by all getting drunk; dogs have not yet reached that point in the Darwinian scale of evolution; but they will meet in dignified general convention on Oct. 5th, in the Opera House, and by the unanimous voice of the meeting testify the state of their minds on the situation.

THEIRS AND HIS PETS.—M. Thiers had a great love for animals, but, strange to say, none for children. He took great pleasure in almost daily going into the garden that surrounded his residence and spending an hour or more watching the antics of a pair of gazelles and caressing them. He taught the doe to lie at his feet, with her head against him, when he was working at budgets and writing those despatches which so agitated the court of France in 1840.



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INOCULATION IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

*Forest and Stream Publishing Company.*

-AT-

No. 111 (old No. 105) FULTON STREET, NEW YORK.

[POST OFFICE BOX 2832.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

## Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* \* \* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, SEPTEMBER 27, 1877.

## To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS,  
Business Manager.S. H. TURRILL, Chicago,  
Western Manager.

## CALENDAR OF EVENTS FOR THE COMING WEEK.

*Friday, Sept. 28.*—Trotting: Ambler Park, Pa.; Dayton, O.; Elmira, N. Y.; East Saginaw, Mich.; Flora, Ill.; Toledo, O.; Fleetwood Park, N. Y.; Creston, Ia.; Kansas City, Mo.; Sharon, Pa.; Montgomery City, Mo. Base Ball: St. Louis vs. Louisville; at Louisville; Hornell vs. Cricket; at Binghamton; Monticello vs. Alaska of S. I., at Centennial Grounds; Excelsior vs. Brooklyn, at Brooklyn, E. D.

*Saturday, Sept. 29.*—Trotting at Montgomery City, Mo.; Running meeting at Jerome Park, N. Y. Base Ball: Hartford vs. Boston, at Boston; St. Louis vs. Louisville, at Louisville; Chicago vs. Cincinnati, at Cincinnati; Quikstep vs. Crystal, at Capitoline Ground; Hornell vs. Cornell, at Ithaca; Fitchburg vs. Lowell, at Fitchburg, Mass.; Richmond vs. Alaska of S. I., at New Dorp, S. I.; Produce Ex. vs. Domestic of Newark, at Centennial Grounds. Regatta of Dorchester Yacht Club off commercial Wharf.

*Monday, Oct. 1.*—Running meeting at Louisville, Ky.

*Tuesday, Oct. 2.*—Trotting: Worcester, Mass.; Brooklyn, N. Y.; Syracuse, N. Y.; Manhattan, Kan.; Cleveland, O.; Londonville, O.; Danbury, Conn. Running meetings at Jerome Park, N. Y., and Louisville, Ky.

*Wednesday, Oct. 3.*—Trotting as above; Running meetings as above. Base Ball: Louisville vs. Springfield, at Springfield, Ill.

*Thursday, Oct. 4.*—Trotting as above. Running meetings as above.

BACK AGAIN.—Mr. Hallock returned to his duties on Wednesday, the 26th September, embrowned and heavier in weight after his two months' excursion in the northwest, where he was the recipient of constant courtesies from the railway and steamboat companies and the gentlemen sportsmen whom he encountered throughout his route of many thousand miles. His investigations in the States of Michigan, Wisconsin and Minnesota have been extensive, and were compiled in copious notes, sketches, etc., which were unfortunately lost in the upper Mississippi River by the capsizing of a double-reefed sailboat in a squall, together with nearly the entire outfit and effects of Mr. Hallock and Dr. Estes, of Lake City, who was his companion. We hope, however, to be able to print a series of letters that will interest our readers, and inform them what abundant and accessible hunting grounds there are in the northwest, and the very comfortable means of reaching them. Mr. Hallock's escape was a narrow one, and

congratulations are in order. In some subsequent writing he may be induced to tell the story of his grief. He is welcome back to his old post.

## THE FAMINE IN INDIA.

ANOTHER season of deficient rainfall has prolonged and greatly aggravated the famine in Madras and Bombay, and portions of the northwest of India. The anxiety felt in India is announced by the constant telegrams to the effect that the famine is on the increase and an appeal to the home government for aid. The provosts of the United Kingdom have been apprised of the magnitude of the relief required and British liberality will no doubt be stimulated to a work of charity and patriotism which the most active measures of the Imperial government usually leave much to be done by way of voluntary supplement. The latest advices have happily been of an alleviating character, as rain has fallen in most of the Madras districts, in some parts of Bombay, as well as in the Punjab, and various districts of Central India where severe distress has been imminent rather than actual. The rainfall has so far improved the condition of the crops, though still complained of as defective; and if the monsoon should develop a sufficient quantity of water there would be a gratifying prospect of general relief in January next. But in the meanwhile there is the heavy calamity of the present famine to be contended with. The Presidency of Madras is the seat of the greatest difficulty. In Bombay, with the exception of the western border where the area or famine appears to be constantly enlarging, the distress is not unmanageable, and the rainfall, partial and insufficient as it has been, has imparted a more hopeful feeling. But in the Madras Presidency alone there are 1,750,000 persons kept alive only by daily assistance. The mortality since the first pressure of the famine has been increased by nearly a half a million—an awful proof of the suffering and sacrifices endured, notwithstanding all the measures of relief in operation. The increasing price of grain has the effect of extending the distress week after week to higher grades of the population and limiting the sources of local charity. The latest returns give the following account of the distress in the various famine-stricken provinces: "In Madras 957,000 relieved on works, 839,000 relieved charitably; in Mysore 48,000 on works, 151,000 charitably; in Bombay 248,000 on works, 149,000 charitably." The peculiar aggravation of the case of Madras is thus sufficiently apparent, and the residents in the capital of the Presidency must be admitted to have ample reason for their anxiety and for their appeal to the outside world for sympathy and assistance. Under the most favorable condition of the growing crops there must be several months of dreary struggle with famine and disease and what in all ages have been the fellest visitations of poor humanity.

It is gratifying to observe that the appeal from India for help is obtaining a liberal response throughout the world and in England in particular. A subscription fund opened at the Mansion house in London mounted up in a few days to over \$200,000 and there seems to be no cessation of money flowing in.

Failure of crops with its consequent deplorable scenes of misery, emaciation and death has for several years in succession been making the circuit of the Indian empire. The seasons have been irregular throughout nearly all parts of the world, even the United States not escaping; unusually heavy rainfalls in Europe, northern Asia and eastern U. S. have been accompanied with severe droughts in India and on the Pacific coast of America. We appear to have been passing through one of those recurring series of years in which the atmospheric equilibrium is disturbed over wide areas of the globe; and according to all past experience this disturbance gradually corrects itself and introduces a more favorable course of the seasons. But it is necessary to look on visitations of famine as all most permanent features of India. This is an enemy always present, and more or less destructive in some quarters of the vast empire. Within the past three or four years famines have destroyed large numbers of the Indian population, diminished the consuming and the tax-paying powers of the country, immensely increased the cares and expenses of the government, produced heavy deficits in the finances, where there would otherwise have been very moderate surpluses, and indefinitely postponed the reduction of the many taxes long condemned as oppressive or impolitic. Famines must thus be recognized as hitherto one of the most certain as well as baneful phenomena of the Indian Empire. In the old times when there was little communication and no heavy traffic between one great province and another, this scourge swept down tens of thousands unnoticed and unheard of beyond its own area, and its victims melted away in darkness and despair. But in this age of railways and telegrams, when the distribution of food supplies is so much more practicable, and intelligence is rapidly diffused, the humanity of a Christian people will insist on the relief of their fellow-men, and, while contributing of their means to this end, will hold the government of India responsible for adopting all proper means to meet such dreadful scenes of misery and starvation. And yet a regular and permanent official system of relief from famine is apt to encourage some of the weaknesses of the native races in India, unless accompanied by vigorous measures for the improvement of rural economy, and the development of a provident and enlightened industry among the tillers of the soil. It is to be hoped that the Indian government and its officers will not overlook this essential matter, and that the time will come when periodical crop failures and scarcities of food will be much less frequent than they have been in times past.

NEW YORK AQUARIUM.—Last week we enjoyed an evening at the New York Aquarium, corner of Thirty-fifth street and Broadway. Since our last visit, the enterprise of Messrs. Reiche has entirely restocked the vacant tanks, and the Aquarium now presents attractions hitherto unequalled. To be sure the white whale is no longer there, but his tank is occupied by five giraffes, animals which combine both ugliness and beauty, and hence form no small centre of attraction. Not the least among the observed are the seals, whose intelligence ranks second only to that of the human. In the deep sea tank is seen a veritable bottle-nosed dolphin, whose nervous and restless movements attract numerous gazers. Here too are the skates, models of ugliness, but with a grace of movement possessed by none other of the oceanic tribes. Sharks, eels, turtles, sturgeons, etc., etc., divide the honors of the tank. Among the latest arrivals are Southern prawns, walking fish, flying fish, yellow eel, big-eye ballistes, hair-finned blepharis, unicorn fishes, balloon fishes, sea ravens, gurnards, serpula, etc. The list of tropical marine life is wonderfully complete, exciting the admiration of the beholder. Messrs. Reiche having secured the building adjoining the aquarium, will place therein a large and varied collection of South American birds, besides numerous monkeys, baboons, etc. A cormorant, flamingo and secretary bird are also on exhibition. The Sea-side Aquarium at Coney Island is to be brought here, so that the New York Aquarium will possess unrivalled attractions for the winter. Special opportunities are given naturalists to study the habits of the animals and fishes.

JIM.—A correspondent in Titusville, Florida, writes: "Tell 'Fred Beverly,' that the characters in his piece in your issue of August 30, were at once recognized, and that I will save the piece for Jim to read when he comes up here again. It will please him mightily. Tell him that Jim has recently taken unto himself a rib, and that he has turned his attention from alligators to manatees; he has recently captured alive a very large bull manatee. Old Capt. C. is still alive, but has given up boating entirely, and confines himself almost exclusively to that veritable grocery by the river side."

—Sir Henry Halford and secretary, Judge Gildersleeve and Major Fulton honored us with a call on Friday last. Sir Henry follows the advice of the Chappaqua sage, and "Goes West," with a view of enjoying antelope shooting on Dismal River, Nebraska.

Hon. J. W. Babcock, of Rochester, paid a flying visit to our sanctum last week, sailing for Europe a day later. We are also indebted to W. J. Fay, Mr. Archer and other Denver friends for a call. These gentlemen came to New York expressly to witness the great match.

## GAME PROTECTION.

CONNECTICUT.—New London, Sept. 13.—I notice in communication of "Scales" that he is glad that the boys of New London are abandoning their poaching and piratical practices. I wish that I could learn that they had determined to give them up altogether. Our trout streams about here are fished from the breaking up of the ice in the Spring, or as soon as the brooks have run down enough, to late in the fall by many calling themselves gentlemen sportsmen, and who would look with holy horror on a countryman who claimed the right to fish the stream through his land in season and out, yet do not scruple to fish in and out of season and to bring home fish of two inches in length to increase the number of their catch. Our City Reservoir, Konomoc, has afforded good black bass and pickerel fishing, but if the outrageous practice of the countrymen pot-hunters who live about the lake are to be tolerated, we very soon will find their numbers sadly decreased. There is one man who, day after day, sits in his old skiff, and with bean pole, drop lines, and surrounded by diabolical inventions, is in a fair way to spoil all fishing, and rob us, who love the exciting sport of bass fishing, of all pleasure hereafter. He has a wooden float about a foot square, upon that an upright, a line passes from the float over the upright and into the water. He fishes there day after day, and, as the farmer boys say, "sells his bass to fishermen who have poor luck." Perhaps this fact may account for the indifference with which this matter was treated when it was mentioned to a gentleman sportsman, he saying: "Well! he catches them with a hook and line, does he not?" Is there no law to touch this robber of gentlemen's sport? MISAL.

—The Pennsylvania State Game Association meets at Pittsburg, Tuesday, Oct. 9.

WHERE ARE THE GAME CLUBS?—The waters of Oneida Lake threaten to be depleted of their fish by the wholesale depredations of lawless pot-hunters. Where are the game clubs whose duty it is to see that the laws are enforced? "Old Sport" writes to the Syracuse Journal:

Are there no law-abiding lovers of sport in Onondaga, Oneida, Oswego and Madison counties who have courage and perseverance enough to make a determined stand against the lawless gang of marauders who for twenty years in open defiance of the law have trapped fish in Oneida Lake? I have been spending the summer on this beautiful lake, and it is a well-known fact that there are at least 100 trap nets in its waters to-day. The men who own them are well known, and year after year they pursue their nefarious trade regardless of the law.

The writer notes the wilful inefficiency of the game constables, and urges that the interested sportsmen of the neighboring towns combine to stop the nefarious practice of those defiant law-breakers. The letter is commented on by the Utica Herald of the 19th inst., in the following language, which we can heartily endorse. Now for action:

Fishing at the lake has been very poor this year in consequence. A party of Syracuseans camping near the mouth of Fish Creek the past summer could not catch enough to supply their table, and were obliged to fall back on crackers and

cheese. Fishing has never been so poor at Fish Creek as this season. At Upper South Bay, Louis' Point, and all along the south shore of the lake seines and trap net are used daily, and legitimate fishing is about played out in consequence. A party of Uticans fishing off Louis' Point the past summer, took only four bass in one entire day. Nets are spread along the shore in plain sight to-day, and no secret is made of this violation of law by those who have made their living by it for years. If a boat was to be sent out from Syracuse, as last year, quite a large number of nets could be destroyed. Game constables make no effort to enforce the law. At North Bay affairs are little better. No seines are drawn openly, but persons in the village boast that they take hundreds of fish while the inhabitants sleep. One rattle-headed young fellow, and his name will be given to the public as soon as ascertained, boasted last week of having taken 400 lawyers and one game fish in a net. The one fish was kept, but the 400 others were left on the shores to die. "Zinc" Fuller is the game constable at this place, and is cognizant of these violations of the law, but winks at them. He has doubtless failed to qualify, as he says that no service can be expected from an officer who has not given bonds. Oneida Lake is one of the finest bodies of water in the State, and at one time abounded in black bass, pickerel, pike, perch, catfish, cels and other good fish. As "Old Sport" says, "It can be made the finest fishing ground in the State if the nets are kept out for three years. There are quite a number of hotels on its shores, and their landlords should take an interest in seeing the laws enforced, as good fishing is just as requisite to the prosperity of a summer resort as good hotel accommodations. Sportsmen's clubs can do much toward enforcing the law, and it is to be hoped that the sportsmen's clubs will act in the matter.

Oneida Lake is within two hours' ride of Utica by rail, and is a favorite resort for sportsmen from Camden, Rome, Utica and other places. Every sportsman and every organization of sportsmen in the county should do their share toward enforcing the law. By co-operating with the sportsmen of other counties bordering on the lake, the evil of seine and trap-net fishing can be eradicated.

The West Jersey Game Protective Society held their annual meeting at Camden, Sept. 19. The Treasurer reported a balance on hand of \$680.27.

The Chairman of the Committee appointed to attend to the duties of policing the five counties, Atlantic, Camden, Cape May, Cumberland, Gloucester and Salem, over which the Society has jurisdiction, reported that they had thoroughly officered every point where a violation of the laws governing the Society was likely to be made. They had established police arrangements from Pety's Island to Salem, and employed steam tug boats, with officers on board to attend to assigned duties. Over three hundred gunning boats had been stopped and the gunners examined, but each were acting in perfect accordance with the game laws as well as the rules of the Society. Three arrests have been made in the districts and the parties punished. The entire cost of police duties during the year, including printing and advertising, was \$584.65.

The following were elected directors for the ensuing year: Henry Vanuxem, Robert K. Neff, Jr., J. H. Willits, John R. Beebe, William B. Brown, Thomas B. Starr, Frank Furness, J. Howard Willits was elected President; Geo. E. Taylor, Treasurer, and Richard T. Miller, Secretary.

A motion was carried, referring to the Committee on Law the necessity of changing the time for shooting reed birds from the 15th of August to the 1st of September, the same as it formerly existed.

On motion, a bounty of twenty-five cents per head was ordered to be paid by the Society for the killing of foxes and hawks in the several counties, as they had been found to have destroyed many fowls during the past year.

The Society last year placed 2,300 black bass and 50,000 salmon in the different streams and ponds, and about 1,400 quails were let loose in the woods. All are doing well.

An appropriation of \$1,000 was made, to be expended in the purchase of quails for replenishing the forests, after which the Society adjourned.

VIRGINIA'S LAWLESS OFFICIALS.—A Culpeper correspondent writes to the Richmond *Whig* the particulars of a violation of the fish law by parties whose official position makes their misdemeanor all the more reprehensible:

It appears that a party of gentlemen, consisting of the county judge, deputy sheriff, agent of the fish commission and others had the seine hauled for a fish-fry in Nalle's Pond, in Mountain Run. Mountain run is a considerable stream, passes through two or more counties, and empties into the Rappahannock twenty miles below Culpeper Courthouse. It is pretty well supplied with pike, carp, whitefish and catfish, and affords good angling, when not disturbed by seining. The river was very low at the time.

If the facts are as stated, no time should be lost in bringing these offenders to justice. Their prompt conviction and punishment will prove an excellent warning for humbler marauders.

NO MORE NETS IN BARNEGAT BAY.—The citizens of Barnegat and the adjoining towns are awaking to the threatened destruction of their fishing industries, and according to the subjoined letter of our correspondent, wholesome measures will be urged at the next Legislature. The sheepsheading at Barnegat has been unsurpassed. Wholesale netting, however, must destroy any like fishing, and stringent regulations should be enacted and rigidly enforced at once. The exercise of a little timely prevention is the part of wisdom.

The occasional comparison of the FOREST AND STREAM to the fish laws as now in force in our bay, has at last awakened our citizens to (what should have been done when our present law was passed) still further protect their fishing interest. Their cry is now, no more nets of any description in our waters, and your correspondent predicts such a bill passes by our Legislature next winter. In previous legislation on the subject the opposition cry was that such regulation would take the poor man's privilege away. I find but two men in the village of Barnegat, rich or poor, who are opposed to it,

Some fifty or sixty laboring men in that town who can afford to buy a hook or line, making fair wages catching sheepshead during the months of June, July and August, this summer, have had their fishing greatly interfered with by parties who can raise sufficient funds to buy large haul seines and outfits, who sweep their grounds, destroy their hand fishing, and glut the market. From Mr. J. W. Kinsey, who is taking an active interest in the passage of such a law, I am furnished with the following actual comparison in revenue derived from one season's fishing, within a scope of six miles from Barnegat, including three hotels on the beach:

Money invested in yachts.....	\$30,700
Revenue derived from yachts.....	10,025
Revenue derived from hotels.....	15,000
Revenue derived from hand line fishing.....	5,900
Total.....	\$30,925

Now, nearly \$25,000 are annually cleared from visitors who frequent this vicinity to enjoy the fishing. Break up this attraction (and it is the only attraction), and this revenue is lost. Against this, the revenue from nets, taking the whole of Barnegat Bay, will not foot up \$3,000. Understand this calculation is only based on the revenues of one village. There are some five or six other prominent places equally in crested and eager for such a law, and not yet ready to sacrifice the goose that lays the golden egg. K.

—Fisher and Van Zandt, of Philadelphia, publish in pamphlet form the constitution and by-laws of the West Jersey Game Protective Society, and the game laws of New Jersey, New York, Penn., Delaware and Maryland.

ARTIFICIO FOR GAME CLUBS.—The Louisville *Commercial* has been figuring with this result: Each pair of quails produce an average of ten chicks per year—many, in favorable seasons, hatch out sixteen in a brood and then hatch a second brood. If we estimate only the small number of 500,000 quails to start with, and take ten per year as the produce of each pair, the totals will simply be stupendous, and we present them for consideration: first year, 3,000,000; second year, 18,000,000; third year, 103,000,000; fourth year, 648,000,000; fifth year, 3,888,000,000

OUR WASHINGTON LETTER.

ORTOLAN SHOOTING ON THE PATUXENT—THE SPORTSMAN'S PARADISE—MARYLAND HOSPITALITY—PRESERVATION OF DEAD BIRDS—SOMETHING ABOUT COOKING THEM—A BENOH SHOW FOR WASHINGTON, ETC.

[FROM OUR OWN CORRESPONDENT.]

WASHINGTON, D. C., Sept. 21, 1877.

IN several of my letters I have referred to the great variety of game found in the States of Maryland and Virginia at all seasons of the year, and the pleasure which sportsmen have in these States not only from the magnificent shooting, but the proverbial hospitality of the people. They are all down on pot-hunters, but when a gentleman comes among them properly introduced he is courteously received, and free to shoot over their land and water. The many readers of FOREST AND STREAM AND ROD AND GUN have no doubt frequently heard of the extensive marshes of the Patuxent, and the great abundance of ortolan, reed bird and other varieties of marsh birds found thereon. In a recent letter I dwelt at length upon the habits of these birds, and hope that an account of a few days' shooting on the marshes of that river may now be interesting. In company with Dr. P. of Washington, who is a true sportsman, as well as something of a naturalist, I left Washington on Thursday last for Nottingham, a small village of about 300 inhabitants located on the Patuxent, sixty miles from its mouth. As all sportsmen appreciate and enjoy the natural scenery of their excursions, and have their hearts made glad by the sight of thriving crops and fertile lands, it will not be out of place to say something of the country through which we passed on our drive of twenty-five miles to the village above named. For a distance of three or four miles beyond Washington there are many small farms, well cultivated, and neat houses, surrounded in many instances by attractive gardens. As we reach Forestville, about eight miles from the city, the land becomes poor, and much of it is uncultivated. The road for eight or ten miles is through a country of this description but sparsely settled, and it will be many years before it is

"Heavy laden with the spoil of harvests rich."

Nearing the village of Croon, we cross the Pope's creek line of the Baltimore and Potomac Railroad, and enter a fertile country with immense fields of tobacco and corn now being gathered in. The farms here are very large and well-stocked; we passed many barns already filled with tobacco to be cured for market, and soon after sundown we reached Nottingham. The place was settled in the early history of the State of Maryland, and being located directly on the Patuxent, it was formerly a place of some importance. The State tobacco warehouses were located there, and until 1851 all the tobacco raised in that part of the State was inspected at the village and shipped, not only to our large cities, but oftentimes directly to Europe. The village was then filled with purchasers during the season for shipping tobacco, and a business aspect surrounded the place. A prominent citizen thereof in conversation with your correspondent in regard to those good old days, growing warm over his subject, somewhat vehemently exclaimed, "Why sir, before the City of Baltimore absorbed the whole State of Maryland we had some business. Now it is all gone." The Patuxent is navigable some fifteen or twenty miles above Nottingham, and Steamers from Baltimore touch there twice a week. The Channel in front of the village varies in depth from fifteen to thirty feet. Salt water commences about nine miles below, though it is sometimes brackish there after a long drought; crabs and other salt water fish are frequently caught there. But I have said enough

about the agricultural and commercial interests of Nottingham. It is beyond question

THE SPORTSMAN'S PARADISE,

as excellent shooting may be found there nearly all the year. About the 20th of March, "Jack Snipe" (*Gallinago wilsonii*) make their appearance, and are abundant for several weeks. The marshes and meadow lands along the river afford excellent feeding grounds for them, and it is a common occurrence for a fair shot to bag twenty or twenty-five in a day's shooting. Two years ago they were so plentiful that a couple of gentlemen from Philadelphia made an average bag of ninety birds a day each during several days. Then come the woodcock (*Philohela minor*) about July, and they are quite plentiful for a month or more; with September the ortolan (*Porzana carolina*), reed bird (*Dolichonyx oryzivorus*) arrive and fill the marshes. Partridges (*Ortyx virginianus*) can be shot after the 15th of October, and they are plentiful on the stubble field near the village. The ducking season also begins in October, and the immense flocks often cover the river and creeks for a great distance. Among them may be found gray mallard (*Anas boschas*), black mallard (*Anas obscura*), blue winged teal (*Querquedula discors*), green winged teal (*Nettion carolinensis*), sprig tails (*Defila acuta*), bald pates (*Mareca americana*), black heads (*Pulic naevilla*), and other varieties. Canvas backs (*Pulgula callisneria*) are sometimes killed, but do not frequent the waters of the Patuxent so far from the mouth of the river.

The sportsman visiting Nottingham may be sure of comfortable quarters and excellent fare at very moderate prices. The hotel there is kept by Mr. John Maccubbin, himself a sportsman and as good a shot as can be found in the county. His house is not more than a hundred yards from the river, and his table is bountifully supplied with the products of the surrounding country and neighboring waters, fish, oysters, game, poultry, fine old Maryland hams, etc., are the welcome dishes to the sportsman who has his appetite sharpened by the health-giving bracing atmosphere of the country. Mac is an old bachelor, with no other cares than to make his house acceptable to the sportsmen who patronize him, and well does he succeed. There is no conventionalities there, requiring a man to leave off his hunting suit and don his broadcloth before appearing in the dining-room. His table is surrounded with sportsmen attired just as they come from the field, who compare notes and discuss the incidents of the hunt without restraint. Among his patrons are many well-known gentlemen of New York, Philadelphia and Baltimore—such men as Col. Munn, of the *Scientific American*; A. Rich, Col. Wm. B. Smith, Robert Robinson, Perry Donohue, Ben West and others of New York. Harry Madison, Jeremiah E. Sharp and Thomas Sevenk of Philadelphia; George J. Popplein and W. Morris Orem of Baltimore, and many other well known gentlemen also annually spend a short time at Nottingham to enjoy the shooting there. It was our good fortune to meet Messrs. Popplein and Orem there last week, they having arrived from Baltimore just previous to our arrival from Washington. We found them to be very desirable acquaintances, and experienced sportsmen, as they have been shooting in that locality for several years.

Upon reaching Nottingham after our tiresome drive from Washington we were cordially welcomed by Maccubbin, who had guns, ammunition and baggage carefully placed in our rooms, and barely giving us time to perform our necessary ablutions, he appeared with the announcement, "I have supper ready for you, gentlemen." We descended to the dining-room, and soon learned that we were perfectly at home. After supper we had a pleasant game of cribbage, and an interesting chat with our new acquaintances upon the sports of the morrow, and then retired to very comfortable beds, being first notified by Mac that he would call us in the morning at quarter before six; that breakfast would be ready at quarter past six, so that we could be on the marsh by seven o'clock, the tide being high enough at that hour to push a boat over the reeds. The next morning we were all out promptly, had a magnificent breakfast, and as soon as we had finished, our host escorted us to the water where he had a skiff and pusher for each, and saw us comfortably fixed for the day's sport. For half an hour the pushers paddled the skiffs up the river to reach one of the favorite marshes, and an interesting picture did we make as we ascended the stream four abreast. The bracing atmosphere of a September morning, the pleasant anticipations of the sport before us, the sight of myriads of reed and other marsh birds around us—all combined to make us forget the cares of business and noise of city life. Soon the marsh opposite Selby's Landing, a few miles above Nottingham, was reached, and the tide being sufficiently high to push the boats over the reeds we entered the marsh; but the bows of our skiffs had barely struck the reeds before the ortolan began to rise before us, and the sport commenced. The birds were so plentiful that it was a very common thing for us to have from four to six down at one time, but our pushers being good markers few birds were lost. We began shooting by half past seven o'clock, and from that time until ten, when the receding tide warned us that we must leave the marsh or be left in the mud, there was a constant fusillade kept up. About ten o'clock we started down the river toward Nottingham, still penetrating the edges of marshes on our way down, and dropping many birds. Upon reaching the wharf we found our host with an immense basket to receive the birds, which we nearly filled, all of us having had splendid shooting. A count of the birds killed showed 230. Mr. Popplein being the champion, he having ninety birds. Maccubbin, who is something of an expert in preserving dead birds,

had them conveyed to the house where he bunched them and hung them up by the feet, it being a theory of his that they keep longer when suspended in this way than if tied by the necks and allowed to hang with feet downward. His reasons for this are plausible. He claims that the entrails of the bird when suspended by its feet fall forward, and any deleterious gasses accumulating in the body can easily escape through the natural channel, while on the other hand, if the birds be suspended by the neck, the intestines all bear upon the lower part of the body, always the first part of the bird to spoil, and prevent the escape of gasses accumulating therein.

Speaking of the preservation of birds after being killed brings to mind a novel method of cooking Jack Snipe and other game birds followed by Mr. Robinson, of N. Y., a frequent visitor at Nottingham. After having the birds picked he places them in a small tin bucket which he covers and immerses in another bucket nearly filled with boiling water. He then covers the lid with live embers to brown the birds and allows them to cook slowly. They are taken from the bucket when done with all the juices retained.

During the balance of our stay at Nottingham we were treated with marked hospitality and the shooting continued excellent. It was a very common thing for our party to bag between two and three hundred ortolan during a single tide. Our Baltimore friends were enabled to send some to their acquaintances in Baltimore by the steamer, others we had cooked at Nottingham, and those not badly shot were carefully preserved until our return to Washington. We met several gentlemen owning the marshes bordering their farms on the river front, all of whom gave us a cordial invitation to shoot thereon, stating that they never objected to gentlemen gunning on their places, but they very sensibly prohibited any shooting for market. The people of Maryland are courteous, generous and hospitable, and I am sure no visitor to Nottingham leaves there with a bad impression of its citizens. In a future letter I will have something to say of the duck and partridge shooting in that locality.

#### A BENCH SHOW FOR WASHINGTON.

The *Sunday Herald* of this city, which, by the way, is an admirable paper, and often devotes much of its space to matters of interest to sportsmen, advocates a bench show for Washington. In a recent article on the subject it says:

"There is hardly anything pertaining to the animal creation more interesting than a good dog show, and there is no reason why one cannot be held in Washington quite as good as the recent ones in Boston and Baltimore. President Hayes and Secretary Evarts have some fine dogs, so have Messrs. Godfrey, Juenneman, Acker, Clarke, Henault, Rowe, Alexander, and many other citizens, and in the adjoining counties of Maryland and Virginia there are splendid dogs."

True, there are many fine dogs in Washington and the neighboring counties of Maryland and Virginia, and it is to be hoped that the show will be organized. Maj. Thos. B. Kalbfus, the business manager of the *Sunday Herald*, a true sportsman, is just the person to take an active part in such an undertaking. If the sportsmen here will aid him in connection with Mr. Charles G. Godfrey, who has had much experience in such matters, I see no reason why we should not have a very successful exhibition.

#### SQUIRRELS.

The Shenandoah (Va.) *Herald* says: "Squirrels have been very plentiful this season. A large number have been killed. On Cedar Creek, in this county, over 2,000 were killed and reported. A number that were not reported, were, we have no doubt, killed in the same neighborhood. They have appeared within the last few days within a short distance of town. They are moving eastward. The cause of the migration is generally supposed to be the scarcity of mast in the Alleghanies. Many of our farmers have lost a great deal of corn." R. F. B.

#### NEBRASKA NOTES.

IN CAMP ON THE DISMAL RIVER }  
Sept. 6, 1877. }

#### EDITOR FOREST AND STREAM:

Those writers who sagely affirm that the "Great American Desert" has no existence should come to Nebraska and explore its sandhills. A few day's travel through this region would, I am sure, cause an entire change in their opinions. Imagine, if you can, a strip of territory one hundred miles wide and four hundred in length covered by a mass of sand so soft and yielding that a horse's hoof at each step sinks two or three inches into the ground, and so fine and light that it is carried hither and thither in clouds by the winds that blow almost without ceasing. A little vegetation clothes the hillsides, but it is very sparse and there are wide spaces of bare sand between each tuft of grass or weeds. A few streams are scattered at wide intervals through the region and flow into the North Platte River, or the Loup Fork; and it is only along these streams that the rich dark green of living grass and shrubs appear to relieve the everlasting monotony of the gray sandhills with their scanty covering of subdued brown.

Although the buffaloes in this region have suffered the absolute extermination which awaits all our larger game, the antelope still exist in the sandhills in considerable numbers. Elk, too, are not infrequently met with, and the mule-deer and Virginia deer are somewhat abundant. But here, as everywhere else, the diminution of game within the past few years is something terrible and cannot but grieve and shock the sportsman. Some years ago when I first passed through these

Nebraska sandhills at no time during the day were we out of sight of antelope, both species of deer were continually jumped from the ravines and creeks, and bands of elk of from fifty to two hundred and fifty individuals were met with almost daily. This country, although almost without large game at present, still abounds in wild fowl.

Less than one hundred yards from our camp is a beautiful little lake overhung by lofty bluffs and fringed with dark green rushes. On its surface can be seen at any hour of the day thousands of ducks and geese, and tens of thousands of waders. The most abundant ducks which we see are the smaller broad-bills (*Fuligula affinis*) and the blue-winged teal (*Q. discors*), though mallards, black ducks and gadwalls are numerous. Flocks of geese alight on the lake every day, and to my surprise I learned that two pairs of swans (*Cygnus Americanus*) bred on its shores during the past summer. Of this fact there can be no doubt, as both the old and young were seen daily for more than a month.

The waders comprise most of the more common varieties of snipe and bay birds, but there are also some of the rarer species, which we, of the East, seldom see alive. A large flock of the beautiful avocets glean a fat subsistence from the shallower waters, and when approached, make the air vocal with their shrill cries. Killdeer plover, Baird's sandpipers, and the little ocyetes hurry along the shores in search of food, and every now and then, in riding by, we start from the damp spots near its margin, that prince of birds, the Wilson Snipe. I must not forget to mention the hundreds of graceful little Northern Phalaropes (*Lobipes hyperboreus*) which, floating lightly on the mirror-like surface of the lake, form one of the most pleasing features of the scene.

My host is one of the cattle kings of this Western country, and his herds range about our camp for miles in all directions. It is a grand sight to watch the bands of cattle pour down from the hills on all sides, slowly and in single file, and move toward the water's edge to drink. So, in former times, did the buffalo, whose bones are still thickly strewn along the margin of the lake, file down and pour their dark columns into this peaceful valley.

Our hunting has, up to this time, been limited to antelope, at present the most abundant game in this vicinity, although even antelopes are scarce. We were fortunate enough, a few days since, to kill "the biggest buck antelope in the range," a splendid animal with a fine pair of horns, and so large that it taxed severely the strength of two men to lift him on to a horse's back. He was a wary old fellow, too, and it afforded us no little satisfaction to have succeeded in circumventing him. When first seen, the buck appeared on the crest of a hill half a mile or more from where we were seated, engaged in watching the movements of a small band of antelope, which were feeding toward us. As soon as we saw the buck, we decided that he was the antelope for us, and for more than an hour we sat and watched him. He promenade up and down that ridge and debated with himself as to whether those dark objects in the valley were, or were not, enemies. Sometimes, he would disappear behind the hill for a short time, but after a little we would see the tops of his horns appear again and he would take another peep. At last he disappeared and it was thought time to approach him. Cautious and deliberate stalking soon brought me within view of the game at a distance of one hundred and fifty yards. There the buck stood, placidly chewing his cud, and looking, to my eager vision, about as large as a cow. A carefully aimed shot pierced his heart, and he fell dead after running a hundred yards. We have seen a few deer, white tails all, but have not yet hunted them. Before long, however, we hope to have some sport with them, and perhaps, to get into a band of elk that is believed to be feeding on a creek about thirty miles from here. *Hasta luego.* Yo.

"Train up a child in the way he should go," etc., says the good book. But how can you train him up thus without keeping him clean? Use B. T. Babbitt's Toilet Soap, then, and when he is old he will not depart from its use. The soap is made of the best materials, and absolutely the king of toilet soap. Its scent is delicious, but not artificial, for no foreign odor is needed to disguise impurity and poison.—*Ado.*

SEAL AND SALMON FIGHT.—An interesting sight (says the *Dun-dee Evening Telegraph*) was witnessed off West Ferry the other day in a desperate fight between a seal and a huge salmon. The combatants were not above a hundred yards from the shore, and the encounter was therefore plainly seen. For more than an hour the fight lasted, the seal all the while dashing about in the water after its agile prey. During the progress of the fight the salmon was tossed many times into the air, after the fashion of a cat with a mouse. It was then seen to be a very large fish. After the fish was fairly exhausted, for the seal was the victor, the seal rose frequently to the surface of the water with its prey in its mouth, the salmon, however, not being yet dead, as the movement of its body clearly indicated. Whether or no the seal swallows its prey whole is not known to the writer; but to spectators of this morning's fight the protracted nature of the battle seemed to have origin in some desire on the part of the seal not to injure its prey or break it with its teeth. There are large numbers of seals in the river at the present time. Between seventy and eighty of these animals, many of them very large and of different colors, were seen sunning themselves at low tide on Abertay Sands one day last week.

FOX HUNT ON LONG ISLAND.—A fox hunt of the English style, with a fine pack of imported hounds, is to be held at East Meadow Brook, Long Island, early in October. The enterprise is under the management of prominent members of the Westchester Polo Club, and everything promises a most successful meeting. The hounds are to be supported by subscription, and the chase is to be open to all lovers of true sport. The committee have been fortunate in their selection of East Meadow Brook, and have shown much good sense in their arrangements. If the enterprise is successful, it is proposed to hold two meetings yearly, and a suitable club house is to be erected.

## The Rifle.

### THE CENTENNIAL TROPHY TEAMS.

The captain of the British team is very anxious that the Board of Directors of the National Rifle Association of America should revoke their previous action on the matter of the Centennial trophy, and adopt his view of who should and who should not enter as competitors in future contests. Again and again has Sir Henry more or less pointedly given the American rifle managers to understand what his desires are in the matter; and in his impatience he recognizes the importance of striking when the iron is hot, and the immense advantage of personal as compared with documentary pleading. He insists that if we are to see another mixed team in the field for the great trophy, we are to say so very quickly, that the National Rifle Association of Great Britain may bestir itself and count up its available talent. But to fall in with Sir Henry's views means a curt turning of the back on the part of the American riflemen and the American National Rifle Association to their rifle friends of Scotland, Ireland, Canada and Australia, and of England, too, if there are any small-bore shooters there more anxious for a good team fight than to carry out the intentions of the British N. R. A. Great stress is laid upon the name *International* contest, which has been placed upon the matches for the Centennial trophy, the English claiming this as a misnomer, denying to Scotland or Ireland the rank of nations, and insisting that we shall acknowledge Great Britain as a nation, and her alone. If it be a misnomer, then also is the International Challenge Trophy restricted to teams of twenty, volunteers from England, Scotland and Ireland each year, equally a misnomer, and the Donegal Cup, of the Wimbledon programme, was, up to 1875, known as the Irish International Challenge Cup. So it would seem that if we are loose in our choice of designation, the English Association is even more so in styling a match *International* which is open to but three competitors. But we in this country can appreciate the difference between politics and sport. When Mr. O'Connor Powers came to this country as the official bearer of addresses of congratulation from the Irish Nationalists to the Congress of the U. S., he was not received except in his private capacity, and properly, as he came on a semi-political mission, and his approaches should have been made through the regular diplomatic channels. But to apply these cast-iron rules and niceties of red-tapeism to a rifle match, almost rises to the ridiculous. We can, if we put ourselves in the line of thought which Englishmen follow, begin to appreciate how their intense class feelings should blind them to the broader fields of view which a sportsman should cover. There is no political significance in these rifle matches, except so far as such may be attached to it by others than the shooters. In the selection of the team, of their arms and the place of meeting, questions of politics are entirely eschewed, and very properly. Were they to enter, we should be entitled to place in the field a team of Irish-American or Scotch citizens of adoption, or any other nationality finding a political home in America. But such have been barred out, with the special intention of making it a direct test between the natives of the several counties invited. There is a distinction, sharp and marked, and a thousand characteristics by which an Irishman may be distinguished from a Scotsman, and either from an Englishman. They may be stirred together in the same political caldron, may be yoked neck and neck to the same government car, but outside and independent of these accidental and changeful circumstances are the radical elements of race and blood. It was precisely these differences which the Directors of the N. R. A. wished to see tested when they decided that an invitation be "extended to riflemen of all countries" (not all nations), and then again requested the secretary to notify the riflemen not only of certain named places, but "all other countries." The British team managers were aware of this construction when they decided to come here. They suffer no grievance if next year Scotland and Ireland shall decide to send separate teams, and have really no ground of protest. The appearance of members of the Irish Rifle Association on the British team is no proof that the Irish riflemen waive their rights in the matter. As a matter of fact they do not, and Sir Henry's implication in one of his early speeches that they had done so was met by a prompt protest from the parties concerned.

The only correct course, the only one now to be pursued by the Board of Directors if they will avoid doing a positive wrong to A, B and C, lest they do imaginary wrong to D, is to keep in the path laid down two years ago; and despite the "bull-dozing" tactics of those who see, in a match between all the rifle-shooting countries of the world, merely a "scrub race between a dozen or more local clubs," keep faith with themselves and their friends abroad.

A British-American match would be an excellent idea, independent of the Centennial trophy matches. We would propose the same conditions, except that an eighteen-inch carton be placed upon the bull's-eye. This would enable finer marksmanship to be properly appreciated and recorded. As the two leading nationalities of the earth see this class of sport, it might be well for Sir Henry and the leading representatives in the shooting world here to confer on this suggestion, leaving the terms of the Centennial match as fixed and settled.

THE FOREIGN TEAM AT SHARPS' ARMORY.—On Saturday, the 15th, Sir Henry Halford, Lieut.-Col. Fenton, Messrs. Ferguson, Gilder and Peterkin of the British team, and Mr. Adams of the Canadian team, accompanied by Judge Gildersleeve, visited the armory of Sharps Rifle Company for the purpose of testing the arms ordered by them during their first visit to Bridgeport, previous to the great match. Upon their arrival at 12:40 they were received by Mr. Chas. H. Pond, secretary of the company, Mr. Winchester, Gen. J. R. Hawley, Major Yate, Mr. Borchardt and others. After partaking of a hearty luncheon the gentlemen repaired to the firing point of the 1,000-yards range, where some very fine scores were made. When it is considered that the rifles had never been used before, and that the gentlemen had never shot the Sharps rifle, the shooting may be put down as magnificent. Mr. Gilder shot the "Sharps Borchardt" new model rifle, making the splendid score of 88 points out of a possible 90, at 1,000 yards, having a run of 16 consecutive bull's-eyes. Lieut.-Col. Fenton shot in the "back position" for the first time, making 67 out of a possible 75. Mr. Ferguson made the handsome total of 71 out of 75. Mr. Adams, of the Canadian team, scored 72 out of 75. The British team gentlemen will return to England with breech-loading rifles, satisfied that for long-range match shooting there is no rifle equal to the "Long-Range Sharps." They unite in saying that for accuracy, safety, simplicity of construction and excellent workmanship, the Sharps rifle cannot be excelled. One of the gentlemen went so far as to say that in the future he would keep his muzzle-loaders for museum purposes alone, as relics of a time gone by. Sir Henry Halford, about starting on a hunting trip to the West, takes with him one of Sharps sporting rifles, which was made for him since his arrival in America. This rifle is a very handsome weapon, and is furnished with the spirit level wind-gauge of Vernier, so as to enable the owner to use it in match shooting if necessary. At the conclusion of the shooting the gentlemen visited the cartridge shop of the company, where they were shown the manner in which the shells are loaded. They gave large orders for ammunition to take back with them to England, evidently determined to show their friends at home what can be done with a Sharps rifle. The following are the scores in detail:

Table with 2 columns: Name and Score. Includes W. H. Gilder (4-88), Mr. Ferguson (4-71), J. Adam-Canadian Team (5-72), Lieut.-Col. Fenton (5-67).

THE BRITISH TEAM AT THE PARK THEATRE.—Sir Henry Halford and the other members of the British team visited the Park Theatre last Friday evening previous to their departure, and were highly pleased with Sothorn's personation of the "Crushed Tragedian." They had previously seen him in England, but expressed their unanimous opinion that he had never appeared with more success than in his present character. The house, as usual, was crowded.

SCATTERING OF THE BRITISH TEAM.—Sir Henry Halford and the other members of the British team and party have laid aside their match rifles and are scattering here and there over the country. Friday evening, his last in town, Sir Henry, in company with General McComb, Judge Gildersleeve, Captain Bowlby and T. C. Banks, visited the Park Theatre, taking supper afterward at the Union League Club. Saturday morning, Sir Henry, with Capt. Bowlby, took the Albany day boat for a view of the far-famed scenery of the Hudson. He goes to the Remington Works at Lion. Thence he will go to Lake George and up Lake Champlain to Plattsburg; thence to Montreal, where he will be entertained by the Dominion Rifle Association. At Toronto, his next point of stoppage, a reception will be tendered. The Sunday following he will spend at Niagara Falls, and then go to Toledo, where he will give a day to duck shooting on Maumee Bay. At Chicago he will be received by the Dearborn Rifle Club and become the guest of General Strong, by whom he will be accompanied to the Dismal River, in the northern part of Michigan, where some time will be spent in hunting elk, deer and other large game. From there Sir Henry will go to Fort Leavenworth, Kansas, where he will be the guest of the army officers stationed at the post, who will take him on the plains, where he expects to get a few shots at buffalo. He will sail from New York on Nov. 3. Col. C. L. Peel, Lieut. G. Fenton, E. Vaughan Thompson and Sergt. W. H. Gilder, of the team party, returned by the City of Chester, and few if any of the visitors will remain to accompany Sir Henry home.

BOSTON—Walnut Hill Range.—The 21st inst. was the worst day for shooting the members of the Massachusetts Rifle Association have experienced at their range at Walnut Hill during the season. The wind blew a perfect gale all day, and the air was exceedingly chilly. The members by their success at Creedmoor have been given renewed interest in shooting, otherwise few would have ventured under such unfavorable conditions. Two competitions were shot, one of which was for the Sharps long-range rifle at 200-yards distance, and the second for Sharps mid-range rifle at 200, 300 and 500 yards. The shooting began at 1 o'clock. For the long-range rifle each competitor was allowed ten rounds at standing position, any rifle. The score stood as follows, 50 being the highest possible:

Table with 2 columns: Name and Score. Includes J. B. Osborne (4-41), L. L. Hubbard (4-40), N. W. Arnold (4-39), D. Kirkwood (4-39), L. W. Farrar (4-37), E. S. Southard (4-37), G. W. Davison (4-37), G. L. Washburn (4-37), F. W. Stevens (4-36), S. E. Ring (4-36), J. B. Sumner (4-35).

The rifle is required to be won by the same individual three times, and it has been won respectively by Messrs. Rabbeth, Lowell, Kirkwood, Souther and Arnold.

For the mid-range rifle five rounds were fired at each distance by each competitor, off-hand, the highest possible aggregate score being 75. The individual scores follow:

Table with 2 columns: Name and Score. Includes D. Kirkwood (54), L. W. Farrar (51), C. M. Jewell (48), J. B. Osborne (43), N. W. Arnold (41), L. L. Hubbard (38), G. W. Davison (39), F. W. Stevens (38).

Mr. Kirkwood (who made the highest score in the shoot), Mr. Davison and Mr. Stevens are not to be included in the competition for the rifle, they having participated for the practice solely. The rifle was won by L. W. Farrar, this being his second time. It has previously been won by Arnold twice and once by Osgood.

THE FRANKLIN RIFLE CLUB.—The annual prize shoot of the Franklin Rifle Club took place at their range on Coll's Meadows, Hartford, Tuesday afternoon, Sept. 18. The charming weather attracted an unusually large attendance of members and friends, some one hundred in all, who enjoyed the day as much as a picnic. A well provided lunch table was set under a commodious awning, where a capital collation was served. Among those present were General Franklin, Dr. R. J. Gatling, General J. R. Hawley, Ex-Mayor Robinson, Quartermaster General Green and Paymaster Joslyn. A large number of prizes had been contributed by friends of the club, some of them quite valuable. The prize shooting consisted of a string of five shots off-hand at 500 feet, the shots being counted by actual measurement from the centre of the bull's-eye, which is eight inches in diameter, the target being three feet in diameter. Anything counting four inches or under is a bull's-eye, and the shortest string is the best. All members of the club, both active and honorary, were entitled to shoot for prizes, and in addition a gold badge was offered to the honorary member making the best score. This was won by Capt. J. C. Kinney, who, making the best score of the day, also took the first prize, a massive silver ice pitcher, goblets and bowl, presented by Ernst Schall. The winning score (13 inches and 8-10ths) is the best ever made at an annual meeting, and one of the best on the clerk's records. A special prize, a package, contents unknown, was offered for score nearest to thirty inches, and was won by Captain E. P. Whitney, president of the club, who found himself the happy owner of a dried codfish. The prize for poorest shot (a Bologna sausage) was awarded to E. Frank Bodwell, the conditions being that the winner must hit the target at least once. The prizes were distributed in the evening at the club room, President Whitney officiating in his usual happy manner, making the occasion one of great entertainment.

CONNECTICUT, Sept. 8.—First competition by Stamford Amateur Rifle Club for a mid-range rifle, presented by Sharps Rifle Company of Bridgeport:

Table with 2 columns: Name and Score. Includes A. Finiels, Sharps Creedmoor (4-43), R. H. Keene, Sharps Sporting (4-43), W. H. Sanford, Remington Sporting (4-42), W. H. Sanford, Remington Sporting (4-42), G. F. Hendrie, Sharps Creedmoor (4-41), E. M. Ferguson, Sharps Sporting (4-41), J. H. Teackle, Sharps Sporting (4-40), J. H. Swartout, Sharps Sporting (4-39), C. E. Nichols, Sharps Creedmoor (4-39), R. D. Bennett, Sharps Creedmoor (4-37), F. H. Williams, Remington Sporting (4-35), W. H. Wilson, Remington Sporting (4-34), T. F. Smith, Remington Sporting (4-32), Walter Ferguson, Sharps Sporting (4-32), C. R. Quintard, Sharps Sporting (4-27).

The Irish-American Rifle Club, of Greenwich, Conn., met their friends of the Irish-American Rifle Club of New York in a return match at Creedmoor on Saturday last, and were again defeated in off hand shooting.

CHICAGO—The Dearborn Club Meeting.—The programme for the fall meeting of the Dearborn Club occupies three days, opening on the 4th prox. The list of matches includes:

Wednesday—Inter-State Match—Distances, 800, 900 and 1,000 yards; ten shots at each of the shorter distances, and fifteen shots at 1,000 yards; open to teams of four, not necessarily all from the same club, but must be members of a regular organization in the State which they represent; no sighting shots.

Mid-range match at 500 yards, any position; carton target; two sighting and ten scoring shots; open to members of regular rifle clubs or associations.

All-comers' short-range match, at 300 yards, off-hand, two sighting and seven scoring shots; open to members of regular rifle clubs or associations.

Thursday—Match for the Dearborn Club Challenge Cup, which is to be held by the winning club for one year, subject to a challenge by any of the competing clubs, and to be shot for on the range of the winning club at such time as they may elect, and within thirty days after the expiration of the year; and if no challenge is received within two years, then the cup to be the property of the winning club. Open only to teams of four or six, who shall be members of a regular rifle club or association; fifteen shots at 800, 900 and 1,000 yards; no sighting shots. Prize, solid silver ice bowl and salver.

Long Distance Match—Same conditions as above (the aim being to encourage the formation of rifle clubs); twenty shots at 1,000 yards, any position; no sighting. Prize, gold badge, value \$100.

All-Comers' Short-Range Military Match—Open to members of any State military organization or rifle club with military rifles. Distance, 200 yards, off-hand, with two sighting and ten scoring shots. First prize, gold badge; second, gold medal. Except when otherwise specified, the latest Creedmoor rules concerning rifles and conditions will govern. No practicing on the days of the matches.

Oct. 11—Sharps Rifle Company's Prize—One long-range rifle, No. 1 extra. Monthly match. Conditions: Open to all comers, but not to be competed for by less than six competitors in one month. Entrance fee, \$1. Distances, 800, 900 and 1,000 yards; fifteen shots at each distance. No sighting shots, and no previous practice allowed on the day of the match. No coaching shall be allowed by either competitors or outsiders. No outsider to assist any competitor by the use of glass or by "spotting" any competitor's shots. Any competitor receiving or giving information shall forfeit all prizes he may win on that day, it being the

desire to make the competitions strict tests of individual shooting. The winner must lead all competitors at each of the three distances at one competition. One-quarter of the entrance money to go to the marksman making the highest score, unless he wins the prize, in which case it goes to the second highest. One-quarter of the entrance money to be added to principal prize, continuously, until finally won. Balance, entrance fees to Dearborn Rifle Club.

THE CALIFORNIA VICTORY.—The Pacific Life is jubilant over the success of the California team, yet speaks with moderation, and contributes some interesting hints on rifle topics. It says:

The noble sport of rifle shooting will receive an additional stimulus all over the United States after the events of the past week at Creedmoor, the great range of the American National Rifle Association. This form of manly recreation has been steadily advancing in the affections of the American people, a circumstance that may be attributed to no frequent triumphs at the target against all comers. We, in California, have special reason to pride ourselves upon winning the championship of the United States for military marksmanship, but it should be remembered that the victory has only been achieved after years of persevering effort by our representative marksmen at Creedmoor to practice at the target. No other State in the Union except New York has taken such an abiding interest in marksmanship as this State, and we are now reaping the harvest of practice. The best evidence of the slow growth of the movement, is that only two other States outside of New York were represented in the contest, and they immediate neighbors to New York. Now that California has sent a team 3,000 miles to win a trophy, the value of which would not cover the traveling expenses of one of our delegates, it is possible the apathy of Massachusetts, Pennsylvania, Ohio, Illinois, and other States in the premises will end. Now that we have won the "Soldier of Marathon" we must keep him, and California will be compelled to sustain her reputation as the champion State next year.

It is a means of still further promoting public interest in this refined order of sport that we chiefly welcome the victory of the California team, and not from any motives of provincial pride. Our team had many advantages over their competitors, while the latter had a slight edge in shooting over ground with which they were familiar. We regretted in the dispatches that the New York team, which was in a better-skilled manner at the eleventh hour, some of the men unacquainted with each other, were destitute of anything like discipline, a fact of itself sufficient to defeat them. Connecticut was most to be feared, because her representatives had twice before won the coveted trophy, and they would naturally put forth special efforts to maintain the supremacy of their State. To us, the most humiliating incident of the contest was the contemptible record made by the marksmen from New Jersey. This State was the origin of the present great rifle shooting movement, the editor of the Pacific Life (Henry G. Shaw) acting as Executive Officer of a tournament held in Clifton, New Jersey, in September, 1870, three years before the range at Creedmoor was opened. At this tournament there were 400 competitors from all parts of the State to participate in rifle matches modified after the system in vogue at Wimbledon. With this start New Jersey should have led instead of brought up the rear at Creedmoor.

We congratulate one and all in the California team, and especially General McCoy, the captain, than whom they could have had none better, on their victory. He has seen the prize upon which his successful enterprise has turned. Some of us may perhaps be said for the weapons with which the winning score has been made. It is evident that there is no better military arm than the Springfield breech-loader.

The Californians are anxious to get up a Pacific Slope inter-State team, to be open to the States of California, Nevada and Oregon.

The Tokio (Japan) Times says: "Major Murata, the celebrated off-hand marksman, whom his European competitors last year tried to cheat as to ranges and distances, and ignorantly failed, has been wounded by a bullet shot in one of the engagements in Kiu Siu."

THE WIMBLEDON TEAM OF 1878.—The selection of the "20" to represent Canada at Wimbledon, in the contest for the Rajah of Kolopores Cup next July, are about concluded, and competitions have been held at Ontario, Quebec, New Brunswick, Manitoba and Nova Scotia. Each man fired 7 shots at 200, 500 and 600 yards each day, and repeat for two days, making a grand possible total of 420 points. Prince Edward's Island and British Columbia have not yet been heard from, though it is not expected that more than one man from each of those provinces will find a place on the twenty which now stands:

Table with 2 columns: Name and Score. Includes Pallen, N. B. (226), Hartt, N. B. (220), Riddell, Quebec (209), Langstroth, N. B. (204), Kinneer, N. B. (202), O. R. Arnold, N. B. (201), K. Arnold, N. B. (200), Thomas, Quebec (200), Weyman, N. B. (195), Holby, Quebec (195).

James Pallen, of Chatham, heads the list, followed by another New Brunswicker. Out of twenty men New Brunswick has twelve, Quebec five, Nova Scotia two, and Ontario one on the team. The work of the team will be watched with no small amount of interest by Canadian riflemen, as the system of selection this year is entirely different from that in vogue for several years past, and a New Brunswick paper, discussing the team chosen, says: "If there has been anything in the experience of the past two or three years to discourage the sending of a Canadian team to Wimbledon, the Council of the Dominion Rifle Association are to blame for it, because of the mode adopted for selecting the men."

WATCHING THE BULLETS.—Three gentlemen, members of the Amateur Rifle Club of New York, on Saturday last were in the town of Brighton, target shooting. The distance was 200 yards. All three were shooting "Creedmoor" rifles. From the firing point to the target the ground gradually ascended, and to the rear the ground ascended so that a small telescope, but a good one, firmly fixed in true bounds on a tree, at a distance of perhaps thirty feet, made a fine point for observation. One of the shooters, while looking through the glass to mark the shot of one of his companions, exclaimed that he saw the ball as it sped on its mission. The announcement was received with incredulity; but one of the other shooters went to the glass, and he also saw the ball almost as it left the gun and through its whole flight nearly the whole line of its trajectory, until it struck the target. So interesting and beautiful was the sight that every shot was watched by one or the other of the gentlemen; and it is an actual fact that the point at which the ball would strike the target could be seen before the ball struck. It was even insisted upon that the rotary motion of the ball could be observed. An old gentleman, whose reputation as a rifleman is fixed, came upon the ground, and on being told of the discovery said he would believe it when he saw it. He went to the glass, saw, and was fairly delighted. Other riflemen who heard of the matter last evening said that they knew such a thing was possible and had before been observed, but had never before had the good fortune to witness the sight. It is proper to state that the sun was shining brightly at the time and was at the shooters' backs. The glass was at a point about three feet above the head of the shooter, and at least thirty feet in the rear of him. It was just the right distance, so that the whole line of the trajectory was in the field of the glass. Some day not far in the future a number of unbelievers will be given a chance to witness the sight and testify to the truth of the above account.—Rochester Sunday Herald.

—R. J. Gatling writes that recent improvements in his gun have brought it to such a stage of perfection that it can fire 1,000 shots per minute, and one man can feed and fire 600 shots per minute. In an official trial 64,000 rounds were fired from a single gun in rapid succession, and without stopping to clean the barrels.

—Nearly three years ago a team from the Emmet Guard of Virginia City visited San Francisco to engage in a rifle match with the Sumner Guard there. The Sumners now send a team of eleven men to Virginia City shoot a return match.

—Vicksburg, Miss., has in its Schutzen Verein an enthusiastic body of Creedmoor shooters. The members have resolved themselves into three teams, commanded as follows: Capt. B. Kalmbach, first team; Lieut. J. F. Doll, second team; Lieut. Abe Bar, third team. The officers of the club are: Wm. Muller, Pres.; I. Hirsch, Vice-Pres.; Sam Fischel, Sec.; Herman Lippich, Treas.

—Mr. Ira Paine, the shootist, is contemplating a trip to Havana, Cuba.

—The superintendent of the Royal foundry at Woolwich, England, has made a report on the experiments with the big guns of the Italian ironclads Duilio and Dandolo, stating that the heaviest English ordnance would fail to pierce their armor, while the 100-ton Italian pieces could successfully damage any vessel.

## Yachting and Boating.

HIGH WATER FOR THE WEEK.

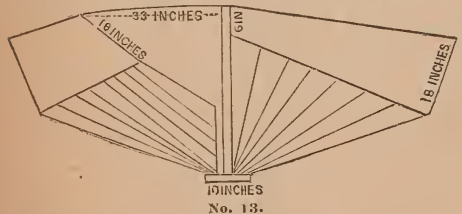
Date.	Boston.		New York.		Charleston.	
	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
Sept. 28.....	3 49	11 57	11 11			
Sept. 29.....	3 37	0 22	7 09			
Sept. 30.....	4 35	1 19	0 44			
Oct. 1.....	5 42	2 28	1 55			
Oct. 2.....	6 50	3 34	3 06			
Oct. 3.....	7 53	4 45	4 13			
Oct. 4.....	8 41	5 45	5 12			

### BOATS AND YACHT-BUILDING.

6th Paper.

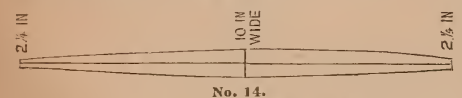
A SKIP-JACK YACHT, TWENTY-ONE FEET LONG, EIGHT FEET BEAM.

THE skip-jack is a good model for a cheap sailing yacht, and if well proportioned and properly ballasted will give many a full modeled boat a "dusty turn." The side-boards should be three-fourths of an inch thick and eighteen inches wide and curved, as shown on diagram number thirteen. The mould-board is beveled four inches to the foot, and stern-board one and one-half inches thick, of oak. The bevel of stern-board may be more or less than the one shown on diagram. Keel, oak, one and one-half or two inches thick, two and one-quarter inches wide at the ends, and ten inches wide at the middle, as shown in diagram number fourteen. Stem and stern-post,



No. 13.

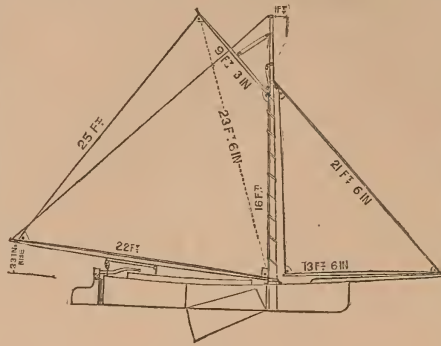
two and one-quarter inches thick at the "rabbit" or "groove." The ribs or cross-timbers, one and one-half inches thick. When finished, the different parts of boat are joined together as before directed. The opening in keel for centre-board is made one and one-half inches wide, and six and one-half feet long. The forward end of the opening is seven feet five inches back of the groove in stem. The ribs or cross-timbers are placed ten or twelve inches apart on the keel.



No. 14.

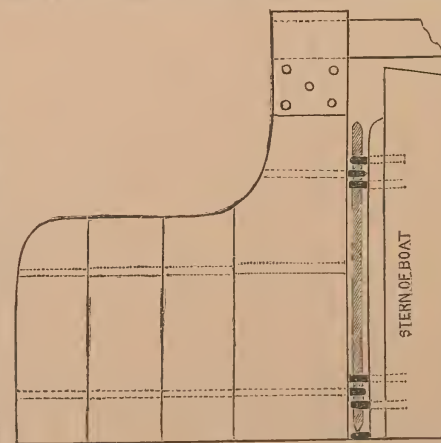
Two oak strips, two and one quarter inches thick and four inches wide, are bolted to the keel, one on each side of the opening for the centre-board. Into these pieces the ends of "bottoms" are morticed. The trunk is built up on the oak pieces and fastened together, as previously described. Boards for trunk, one and one-half thick; and pieces, one and one-half by two inches. Centre-board one inch thick, of oak. The centre-board is fitted, as previously described, and in addition two pieces of strap iron (one on each side of board) are placed fifteen inches from back end of board, extending from top to bottom, and are riveted "through and through;" or, in other words, are riveted to one another through the board. The trunk is built as high as the gunwale of the boat, and its forward end is fastened to a deck beam. Floor timbers, one by three inches. Along the trunk the ends of the floor timbers rest on the oak pieces forming the base of the trunk. The floor boards may be three-fourths of an inch thick, with the exception of one plank on each side of the trunk one and one quarter inch thick and eight inches wide. A pine plank is nailed on the knees around the sides of the boat, two and one-quarter inches below the gunwale or upper edges of side-boards. On this plank the deck timbers rest and are fastened. The deck beams are curved one half an inch to a foot. This gives a "rise" to deck of four inches at the widest part of boat. Deck beams are cut out of

one inch pine; those near mast double, or two inches thick. Deck planks, three-fourths of an inch thick, and two to two and a half inches wide. The middle deck plank, in which the mast is "stepped," should be ten inches wide and one and one quarter inch thick, strongly fastened to the deck beams by bolts. Middle deck plank, oak, the rest pine. The middle plank will fit better if it is steamed. The cockpit may be shaped to the fancy of the builder. The "combing" is formed of narrow boards, five-eighths or three-quarters of an inch thick, either pine or alternate strips of ash and black walnut, tongued and grooved. Combing projects above deck four to



No. 15.

six inches. Openings should be left to give access to the spaces under deck at bow and stern. Seats placed as desired. Sail, four hundred square feet; mast four and a half inches in diameter at deck, three and one-quarter inches at top; boom, four inches diameter at middle, and two and one-half inches at the ends; gaff boom, two and one-half inches diameter; jib sprit, or boom, two and one half inches diameter at middle, and two inches at end; standing rigging (shrouds, jib stay, bob stay, and side stays of bowsprit), galvanized wire rope, seven-sixteenths of an inch diameter, fastened to the various staples or eyes by "turnbuckles," or looped with hemp cordage. Inboard end of bowsprit four inches square, outboard end two and one-half inches diameter. For one-half the distance from the stem to the outboard end, the bowsprit is chamfered on the corners, the remaining distance to the outboard end is rounded. The rudder is constructed, as shown in diagram, of one and one-half inch oak plank. It is twenty-seven inches long, and fastened together with iron rods. The head is formed by bending a piece of strap iron over the top of rudder-post, and riveting it "through and through." This forms a mortice for the insertion of the tiller. The lower rod in rudder has an eye formed on one end to serve as one of the rudder hanging. The rudder hangings, as shown on diagram, consists of two eyes on the rudder and four eyes on the stern-post of boat, an iron rod five-eighths of an inch in diameter run through all the eyes, completes the hangings. The rudder rod is prevented from dropping down by a "stop," below the lower eye on stern-post. A piece of oak one and one-half inch thick and two inches wide is fastened on the outside of the stern-post, and runs up to near the top edge of stern-board.



No. 16.

Through this piece the eyes in stern are fastened. Anchor, about thirty or thirty-five pounds. Ballast, sufficient to bring the "bilges" (or shoulders on the sides of boat) well under water. The draught of water will be about twelve inches. The mast "rakes" twelve inches on its whole length. The next paper will be upon the art of drawing and modeling boats of curved sections.

PROVIDENCE YACHT CLUB—Narragansett Bay, Sept. 20.—The annual regatta was sailed over a course of twenty-two miles for sloops, and seventeen miles for cat-rigged yachts. The entries were:

First Class Sloops—Alice, Commodore Henry J. Steers; Haswell, C. G. Bloomer.  
 Second Class Sloops—Undine, H. C. Allen; Genevieve, A. H. White; Peck and Dixon, C. H. Peck; Evelyn, F. P. Sands; Kelpie, W. Preston;  
 Third Class Sloops—Starlight, R. W. Jencks; Sonora, W. C. Taplin; Hope, E. J. Anderson.  
 First Class Cat-Rigged—Glean, F. A. Gower; Wanderer, B. Davis; Lizzie, S. Cameron; Magic, B. Davis.  
 The boats crossed the line as follows:

Name.	SLOOPS.		CAT-RIGGED.	
	Actual time.	Corrected time.	Actual time.	Corrected time.
Haswell.....	2 36 35	3 04 41	Alice.....	3 51 05
Genevieve.....	4 05 29	3 17 51	Peck & Dixon.....	4 05 24
Undine.....	4 23 11	3 27 36	Kelpie.....	4 17 53
Evelyn.....	4 26 43	3 29 34	Sonora.....	4 30 36
Starlight.....	4 33 21	3 19 42	Hope.....	4 42 49

Name.	SLOOPS.		CAT-RIGGED.	
	Actual time.	Corrected time.	Actual time.	Corrected time.
Glean.....	2 43 08	1 46 55	Wanderer.....	2 47 33
Lizzie.....	3 08 41	2 11 16	Magie.....	3 22 12

NEW YORK—Shrewsbury Yacht Association.—The fourth annual regatta of this Association, which comprises the Neptune and Jackson Clubs, New York City, was held off the Neptune Club House, Sept. 20. The course was a distance of ten miles; the prizes were gold medals. The summary is as follows:

FIRST CLASS.			
Name.	Cor. time.	Name.	Cor. time.
Maud.....	2 39 59	Long Branch.....	2 51 17
SECOND CLASS.			
The Wanderer.....	2 35 65	Ella Lee.....	3 19 07
Vixen.....	3 10 19		
THIRD CLASS.			
Neptune.....	2 51 05	Sapphire.....	3 16 00
FOURTH CLASS.			
The Navesink.....	3 01 15	Alice M.....	3 12 04
Katie.....	3 09 17	Water Witch.....	3 18 41
FIFTH CLASS.			
Red Jacket.....	1 40 15	Josephine.....	1 59 16
Highland Lass.....	1 45 06	Rob Roy.....	2 05 07

NEW YORK—AMERICA SAILING CLUB REGATTA, Sept. 22.—This regatta sailed over a course from off Hamilton Ferry to and around the can buoy off Robbin's Reef Light and return, was open to all nineteen-foot Whitehall boats, limited to twenty yards sprit sail. Race for a handsome silver medal. The yachts went over the course in the following time:—

Name.	Captain.	H. M. S.
G W B.....	J Gorman.....	1 47 00
Mary Ellen.....	John Murphy.....	1 48 59
Maggie.....	James Murphy.....	1 49 15
Battery Pot.....	E Gentry.....	1 49 40
J H Shard.....	Byrnes.....	1 50 25
Nancy.....	J Gaylor.....	1 51 17

ALERT CLUB CHAMPIONSHIP.—The annual regatta of this club was sailed Sept. 24. The race was for the single scull championship prize medal. The contestants were Messrs. A. W. Smith, G. Droste, F. Lohr, A. Netzel, F. Neppert, Jr., and A. Lohr. Netzel won in 17m., with Neppert second.

NEWARK BAY REGATTA.—A regatta was sailed Sept. 20th, for prizes presented by Mr. D. E. Bonnal. The course was over a distance of ten miles. The corrected time was: Excelsior, 1:40:11; Wave, 1:37:53; Lizzie Van Name, 1:49:31; Little Katie, 2:00:00; Hi Pi, 2:07:20; Jane A., 2:15:23.

NEW ROWING ASSOCIATION.—At a regular meeting of the Farragut Boat Club, held last evening, the following gentlemen were elected as delegates to the rowing convention to be held in Chicago, Oct. 16, for the purpose of forming the "Mississippi Valley Rowing Association," which is to be composed of clubs resident in the Mississippi Valley. Annual regattas are proposed, and from the character of the various clubs interested in the movement, it is safe to say that the western country will ere long be treated to as fine exhibitions of skill as have ever been seen elsewhere. A handsome set of colors were presented by Miss H. Morton for whom the new barge purchased by the club was named. The coming convention promises to be well represented by the various western clubs. Delegates—A. M. Douns, A. S. Porter, T. H. Jenkins, G. W. Morison, Frank Booth, C. D. Richards and H. S. Penfield.

LOTISIANA AMATEUR ROWING ASSOCIATION.—The first annual regatta of this association was sailed at the Lake End, New Orleans, Sept. 24. The race for single sculls, one mile and return, was won by O'Donnel, of the Hope Club, in 17m. 49s. The race for double sculls, same distance, was won by Graham and Keenan, of the Perseverance Club, in 15m. 23s.

FLORIDA—Titusville, Indian River, Sept. 8.—The following yachts were entered: Blonde, Freddie, Wave, Comet, and New Year. The course was a triangular one, nine miles around, race twice around the course. The Freddie won, beating the New Year by one minute and thirty-four seconds. Prize, a silver cup. There was also a race for flat-bottomed boats.

CANADA—CHAMPION FLAG OF LAKE ONTARIO.—The yacht race for this flag was sailed at Toronto, Sept. 23. The competing boats were the Annie Cuthbert and the Oriole. The race was awarded to the Oriole. The Annie Cuthbert came in 17m. ahead, but did not round the buoy properly.

SEVEN HUNDRED MILES IN A WHERRY.—Mr. William Tryon, of Brooklyn, N. Y., arrived at Bar Harbor last Saturday in a lap-streak wherry, which he had rowed over a course of 700 miles. The voyage commenced at Yonkers, on the Hudson, Monday, July 30, and safely ended at Bar Harbor at half-past four o'clock Saturday afternoon. The above distance was accomplished in a round-bottomed boat only twenty-seven inches wide, and drawing but three inches of water. The craft weighs 100 pounds when not loaded, and something under 300 with the owner and all his effects on board. The Flash has an addition unusual to rowing boats in the shape of centre board, which, while it does not perceptibly better the equilibrium, has proved of great value by providing a straight course against the wind. This boat carries a light, a couple of poles fore and aft for its colors, and has a miniature marine clock, compass, charts, marine glass, water tight locker for clothes and other necessities. When all these things are stowed away there is but little room to spare, and the solitary rower just fits into his place and no more.—Portland (Me.) Argus, Sept. 14.

—A party were enjoying the evening breeze on board a yacht. "The wind has made my moustache taste quite salt," remarked a young man who had been for some time occupied in biting the hair that fell over his upper lip. "I know it!" innocently said a pretty girl. And she wondered why all her friends laughed, "People are so childish," she remarked.

—An Arctic expedition will probably be sent out by Holland, under command of a lieutenant who has made three Arctic voyages under the British flag. Its object is not the discovery of the Pole, but the erection of granite monuments to some of the early Dutch voyagers.







New Advertisements.

GOOD'S OIL TANNED MOCCASINS. The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine article. Send for illustrated circular, MARTIN S. HUTCHINGS, P. O. Box 368, Dover, N. H. (Successor to Frank Good.) W. HOLBERTON, 102 Nassau St., N. Y., Agent.

Folding Pocket Mosquito Bar. A most ingenious device for camping purposes. It is very light, easy to carry and can be put away taken down in half a minute. Priced by sportsmen to be the most complete thing of the kind ever offered to the public. Price only \$1.50. Lawn covered, expressly for Florida travel, \$3.50. Sent postpaid on receipt of price. Liberal discount to the trade. A. A. COWING, Watkins, N. Y. W. HOLBERTON, 102 Nassau St., N. Y., Agent.

Sportsmen's Routes. Sportsman's Route. CANADA, SOUTHERN RAILWAY. Direct Connections at Buffalo with New York Central and Erie Railway. At Detroit, with Michigan Central Railroad. At Toledo, with Toledo, Wabash and Western Railroad.

DOGS CARRIED FREE and given special attention. THROUGH CARS—FAST TIME AIR LINE—STEEL RAILS. FRANK E. SNOW, G. P. & T. Agent, Detroit. NEW HAVEN, HARTFORD, SPRINGFIELD, White Mountains, Mount Mansfield, Lakes Memphremagog and Willoughby, Montreal and Quebec. Shortest, quickest and most pleasant route. Steamers C. H. NORTHAM and CONTINENTAL leave Pier 25, East River, daily (Sundays excepted) at 3 P. M. (3rd St., E. R. 219 P. M.) and 11 P. M., connecting with trains on wharf at New Haven for above and intermediate places. Passengers taking 11 P. M. steamer (except Saturdays and Sundays) can reach White Mountain, Lakes, etc. next afternoon. Tickets sold and baggage checked at No. 244 Broadway, New York, and No. 4 Court Street, Brooklyn. Full particulars at office on Pier 25, RICHARD PECK, Sup't.

Guns, Rifles, Etc. THE NEW AMERICAN Breech-Loading Shot Gun. For close hard shooting excels all others. Price \$17. Send for circular. Duck guns, extra heavy, a specialty. JYDE, SHATTUCK & CO., Mrs. Hatfield, Mass. Sept 6m.

SUCCESSFUL SHOOTING. For information of best localities inquire to this address. Through years of experience of both myself and my assistants I have successfully found the correct method of loading shells for close, hard shooting, and have made the prices as low as consistent with good material and workmanship. Shells loaded with American ammunition. . . . 12, 14, 16-gauge, per 100, \$4 . . . . . \$5 English . . . . . \$5 . . . . . \$6 Shot-guns and Rifles, loaned, bought, sold and exchanged. First quality powder, shot, caps, wads and shells at low prices. J. F. MARSTERS, 125 Nassau street, N. Y., and 55 Court street, Brooklyn. Goods sent C. O. D. by express. Send for catalogue of sporting goods. Sept 27

REMOVAL. HODGKINS & HAIGH, Dealers, Manufacturers and Importers of FIRE ARMS AND SPORTING GOODS. In general, having removed to No. 293 BROADWAY, respectfully solicit a continuance of the patronage heretofore extended.

Gmpowder. Warren Powder Mills, MANUFACTURERS OF BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER. SPORTING BRANDS—Eureka, Continental, "Border Rifle," Snap-Shot, and Warren Sporting Cannon and Msknet, U. S. Standard. The above can be had of the dealers, or at wholesale at the office, 27 Drott street, Boston, Mass., and of the agents, JOHN P. LOVELL & SONS, corner of Washington, Cornhill and Battle street, Boston, Mass. Jy 19

THE HAZARD POWDER CO. MANUFACTURERS OF GUNPOWDER. Hazard's "Electric Powder," Nos. 1 (fine) to 6 (coarse). Unsurpassed in point of strength and cleanliness. Packed in square canisters of 1 lb. only. Hazard's "American Sporting," Nos. 1 (fine) to 3 (coarse). In 1 lb. canisters and 1/2 lb. kegs. A fine grain, quick and clean, for upland prairie shooting. Well adapted to shot-guns. Hazard's "Duck Shooting," Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 6x and 12x lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzle or breech-loaders. Hazard's "Kentucky Rifle," FFG, FFG, and "Sea Shooting" FG, in kegs of 25, 12x and 6x lbs, and cans of 5 lbs. FFG is also packed in 1 and 1/2 lb. canisters. Burns strong and moist. The FFG and FFG are favorite brands for ordinary sporting, and the "Sea shooting" FG is the standard Rifle powder of the country.

Superior Mining and Blasting Powder. GOVERNMENT CANNON & MUSKET POWDER; ALSO, SPECIAL GRADES FOR EXPORT, OF ANY REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER. The above can be had of dealers, or of the Company's Agents in every prominent city, or wholesale at our office, 38 WALL STREET, NEW YORK.

THE New Dittmar Powder. THE CHAMPION POWDER OF THE WORLD For all off-hand shooting at short and long ranges. Unsurpassed for Cleanliness. Pleasant to shoot on account of little recoil, and no report. Desirable for hunting on account of little or no smoke. Unequaled for rapid firing, as it does not foul and heat up the barrel as black powder. Greater accuracy, penetration and good pattern. Safer than black powder. Address: CARL DITTMAR, NEPONSET, MASS.

English Sporting Gunpowder. CURTIS & HARVEY'S DIAMOND GRAIN. Nos. 2, 3, 4, 5, 6, 7 and 8. Superior Rifle, Enfield Rifle, and Col. Hawker's Ducking. W. STITT, 51 Cedar street, N. Y. Agent for the United States.

ORIENTAL POWDER MILLS MANUFACTURERS OF ALL KINDS OF GUNPOWDER. Office—13 BROAD STREET, BOSTON. BRANDS—DIAMOND GRAIN, FALCON DUCKING, WILD FOWL SHOOTING, WESTERN SPORTING, (Oriental Rifle). The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES. J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. Cobb & Wheeler, Agents, 9 State St., Chicago, Ill. C. J. Chapin, Agent, 218 Locust St., St. Louis, Mo. Agencies in the principal cities in the United States.

Fishing Tackle. PHILADELPHIA Fishing Tackle House.

A. B. SHIPLEY & SON, 503 COMMERCE STREET, PHILA. Manufacturers of FINE FISHING TACKLE A Specialty of the Celebrated Green Heart Wood for Amateur Rod Makers. Rod Mountings in Sets for 75c. to \$9.75. RODS, REELS, Etc., REPAIRED. Shipley's Self-Hooking Elastic Shells, "catch every fish that bites." Send for sample. For Trout on gut, 10c. each, 75c. per doz. For Bass on double gut, 12c. each, \$1 per doz. Highest premium at Centennial, 1876, and Franklin Institute, 1874.

Fishing Tackle. Description. Of Every FINE GOODS FOR SPORTSMEN A SPECIALTY. NEW YORK, LONDON, REDDITCH, HAVANA AND RIO JANEIRO. 48 Maiden Lane, N. Y. ABBEY & IMBRIE, ANDREW CLERK & CO. SUCCESSORS TO

DINCEE SCRIBNER, Manufacturer of salmon and Trout Rods, Salmon and Trout Files Casting Lines, Landing Nets, Gaffs, etc. Best Greenheart Rods at \$9, \$11 and \$13 each. Waterloo Street, St. Johns, N. B. Jy 12 6m

The Ludlow Trout Co. Will this year take from one to two million brook trout eggs (ready for shipment from Nov. 10 to Dec. 20) at lowest prices. Send for price list. Address B. FREEBURG, SUPERINTENDENT, Ang 23 3m Ludlow, McKean County, Pa.

COMPETITION IS THE LIFE OF TRADE. J. B. CROOK & CO., Fishing Tackle, 50 FULTON STREET, NEW YORK. Makes the Immense Reduction. Greenheart Rods for Trout and Bass Fishing, \$15 to \$30. Ash and Lancelwood Rods for Trout and Bass Fishing, \$7 to \$12. Everything else in proportion. Goods sent C. O. D. to all parts of the United States and Canada.

H. L. LEONARD, BANGOR, MAINE, Manufacturer of every variety of FINE RODS FOR SALMON, BASS and TROUT FISHING. Split Bamboo Rods a Specialty. Great reduction in prices. Trout Rods, full mounted, \$30, formerly \$50; other rods in proportion. Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof fernie," and warranted against imperfections in material and workmanship. Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancelwood. MADE TO ORDER. I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods. Also manufacturer of Patent Reels for Salmon and Trout fishing. The lightest, strongest, and handsomest Reels ever made. Full line of FISHING TACKLE always on hand. Send for oriental and price list.

SPORTSMEN. To close out a very large stock of Flasks and Pouches, we offer a genuine Imported English Shot Pouch, well made, of strong leather, with finely finished brass top and charger, or a moulded composition Powder Flask, brass mounted, with charger, for 50c. a piece, the two for 90c., postpaid by mail. Dealers and others will do well to order immediately. G. W. TURNER & ROSS, 26 Central street, Boston, Mass. Sept 27 1t

SHELLS LOADED TO ORDER at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

Painting. PAINTING. EVERY ONE THEIR OWN PAINTER.

50 Per Cent. Saved. We are manufacturing a very fine Pure Ready-mixed Paint, mixed in such a manner that any ordinary stable or farm hand can make as good a job painting as a painter can with paint mixed in the old way. This is because our paint does not set quick, and thus show marks of the brush. We sell it lower than materials can be bought in the ordinary way, and pay freight in certain sized orders. Any gentleman wishing to paint up his buildings at small expense had better write, and have sent free our book. Address 200 Front street, INGERSOLL PAINT WORKS.

Sportsmen's Goods. BOSTON SHOOTING SUIT. Manufactured only by G. W. SIMMONS & SON, BOSTON.

Each article—coat, trousers, vest and hat—have the name and manufacturer's address stamped upon it, and no suit is genuine without it bears this imprint. The suit can be sent, securely packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit. We make no discount except to the trade. We make but one quality, and that is the VERY BEST. The price of the suit complete is \$13. The suit consists of coat, trousers, vest, and choice of either cap with havelock, or hat. The material is of the best quality of duck, waterproofed by a patent process. The color is that known as "dead grass shade." The seams and pocket corners are riveted, and nothing is neglected to make the whole suit complete in every way.

OUR PATENT DECOYS have entirely superseded the old-fashioned cumbersome, wooden decoys. The birds are hollow, and six of them occupy about the space of one wooden decoy. The Duck Decoys of all kinds are \$12 per dozen; geese, \$3 each; yellow leg, \$4.25 per dozen; black breast plover, \$3.75 per dozen; red breast plover, \$3.75 per dozen; golden plover, \$3.75 per dozen; turnstone, chicken plover, etc., \$3.70 per dozen; sandpipers, \$3.50 per dozen. We are now making standing geese for field shooting.

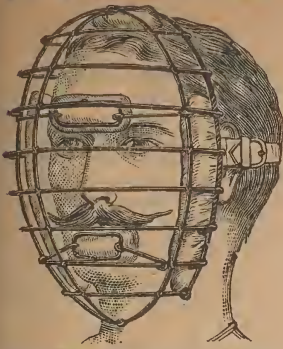
THE HUNTER'S TENT is made of tan-colored duck; light, easily transported. Size, 7 ft. by 8 ft. Price, \$10 complete, made on the umbrella principle, folding into a neat roll 3 feet long. In the judges' report at Philadelphia they were commended for excellence in every part. Very novel and practicable; adapted to all out-of-door purposes where lawn, beach, hunters and camp tents are used; quick folding; all sides strongly fortified; enables them to stand against wind and rain. Rev. F. B. Savage, of Albany, N. Y., who camps out in Florida in winter, and the Adirondacks in summer, writes this about the tents: ALBANY, July 31, 1877.

STRS—I have just returned from a three-weeks' camping expedition in the Adirondack, and have had the three tents bought of you put to the severest tests of exposure both as to wind and storm, and I do most unhesitatingly say they are the most complete thing of the kind I ever used. 1st. They are easily put up or taken down. 2d. They are perfectly waterproof. 3d. They are a good height, and all the room is available. Our party asked for no better. They were admired by all who saw them, and one party insisted on buying one of ours that was to spare. Rev. Dr. Druyen, of Brooklyn, and the Rev. Dr. Irwin, of Troy, both indorse what I say about your tent. With kind regards, yours truly, F. B. SAVAGE.

Tan-Colored Leather Pliable Waterproof Suits. In Shooting Coats, Jackets, Breeches, Vests and Hats at following prices: Coats, \$22; Breeches, \$15; Jackets, \$18; Vests, \$12. These form the most elegant shooting equipment known. They are indestructible. A recent notice in the FOREST AND STREAM, from a correspondent, says: Whenever a sportsman, or even one who does not claim the distinction, finds a really good and useful article, it is no more than fair that he should let others have the benefit of his knowledge. For this reason we would call attention to the Tan-colored Leather Shooting or Fishing Suits, made by G. W. SIMMONS & SON, of Boston, Mass., the manufacturers of the famous "Boston Shooting Suit." I saw these goods advertised in your paper, and wrote to the parties for samples. I found the material as soft and pliable as a piece of kid. I tested it by soaking in water twelve hours, and found it as nearly waterproof as one could desire, and after drying was happily surprised to find it had not stiffened in the least. I have since then received a full suit—coat, vest and breeches—ordered by letter from measure taken by myself. The goods are splendidly made, well lined with flannel; in fact I do not see how they can be improved. My friends are unanimous in their verdict that G. W. Simmons & Son's leather goods cannot be excelled in quality or beaten in price. For every kind of sportsmen's goods address G. W. SIMMONS & SON, Oak Hall, Boston, Mass.

Sportsmen's Goods.

PECK & SNYDER'S



Base-Ball Catcher's Mask,

Now used by all the prominent catchers when playing behind the bat.

We send samples, C. O. D., for \$3. Enclose stamp for the Athletes Journal, giving our latest prices of all goods in the sporting line.

PECK & SNYDER, Manufacturers, Agt 16 3m 124 Nassau street, N. Y.

COMPLETE OUTFITS

FOR Camping, Shooting & Fishing

Fine fishing and shooting tackle, camp stoves, leather, rubber and canvas goods and suits for sportsmen. Tents, portable boats, moccasins, etc.

AGENTS FOR THE FOX GUNS. The best and strongest American gun yet made. Sole agent for the celebrated McBride files, Robertson's fly rods, black bass and trout flies, and full length fly books.

W. HOLBERTON, P. O. Box 5, 109, 102 Nassau street, N. Y. Aug 23 1st.

Gale's Patent Tents,

Adapted to all purposes where Lawn, Beach, Hunters' and Camp Tents are used; are eight feet high, seven feet square at bottom, will lodge four persons; can be set up or taken down and packed in five minutes, making a bundle four feet long, of twenty-five pounds weight. The pole in two parts, is joined together by a brass tube. They are wonderfully light, and yet very strong, and are the handiest and cheapest tents extant.

GALE & CO., Boston, Mass.

Publications.

BINDERS.

Get your fine books bound. Art Journal bound uniform to London publishers' style. Picuresque America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done in two or three days if required.

E. WALKER'S SONS, 14 Dey street.

"THE OOLOGIST,"

A MONTHLY JOURNAL DEVOTED EXCLUSIVELY TO BIRDS AND BIRDS' EGGS.

This magazine, the favorite of amateur ornithologists, is now in its third volume. It is replete with all that is new or recent in Ornithology and Oology, and publishes important papers on the rarer of our birds and eggs. It is just the periodical for those making collections of birds and eggs for scientific examination, as its columns are constantly furnishing descriptions of the eggs of new and rare species.

TERMS—Forty cents a year, in advance. Specimen copies and prospectuses only on receipt of stamp. Address, S. L. WILLARD & CO., Oneida st., Utica, N. Y.

LONG-RANGE

RIFLE SHOOTING.

A Complete History of the International Long-Range Matches, 1873-1877—Complete Elcho Shield Scores—Rules and Regulations of the N. R. A. Etc., Etc.

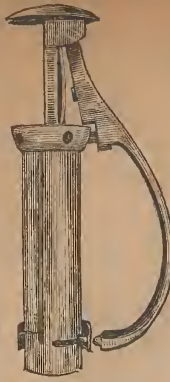
FULLY ILLUSTRATED

BY THE RIFLE EDITOR OF THE "FOREST AND STREAM AND GUN."

Price 25 cents.

NEW YORK.

Published by the Forest and Stream Pub. Co. 1877.



STODDARD'S CARTRIDGE LOADING IMPLEMENT, COMBINING SEVEN DIFFERENT TOOLS, Cap Expeller, Recapper, Loader and Tube, Creaser, Cutter Crimper and Shell Extractor.

NO. 10 NOW READY.

Performing all the operations possible in the manipulation of Paper or Metal Shells for Breech Loaders. Length, 4 1/2 inches. Nickel Plated. Weight 10 ounces.

All the operations are perfect, and suitable for any shell. AWARDED BOTH MEDAL AND DIPLOMA AT CENTENNIAL EXHIBITION.

PRICE, \$6.

Circulars sent on application. Send postal order or check to

C. J. STODDARD & CO.,

Lock-Box 192, Washington, D. C. LIBERAL DISCOUNT TO THE TRADE.

THE UNITED STATES CARTRIDGE COMPANY, LOWELL, MASS.

Manufacturers of the

CENTRAL FIRE, SOLID HEAD, BRASS SHELL, RE-LOADING CARTRIDGE,

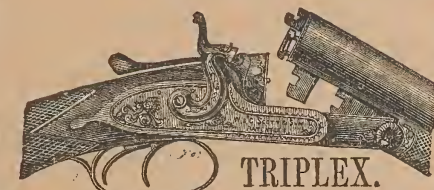
Used by the Army and Navy of the United States and several Foreign Governments. All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.

W. & C. SCOTT & SONS.



TRIPLEX.

Marked the PREMIER QUALITY

[Extract from FOREST AND STREAM, New York, December 26, 1876. Contributed by one of the Judges of Awards of Guns at the Centennial.]

"This action (The Triplex Lever Grip) combines in the highest degree strength and simplicity, and most rapidly secure the favor of all who test its merits.

COMPENSATING LUMP. Strongly recommended. It is invaluable, and should be ordered on every gun. Costs about \$10 extra. Choke-bore, medium or full. Our guns to be had of the principal dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.

W. W. Greener's CHOKE-BORE GUNS, Tried on Game in America.

Supplied by H. C. Squires, 1 Cortlandt St., NEW YORK.

See the Following Testimonials:

Sir—It is a pleasure for me to inform you of my high appreciation of the W. W. Greener breech-loader purchased of you last winter. I consider choke-boring, if skillfully done, as the greatest improvement in fowling-pieces since the introduction of the percussion cap. It gives the maker complete control of the pattern, and greatly increases penetration. To prove this, I will give you the performances of this gun. The 32-inch 10-gauge barrels, charged with 1/2 drachms of powder and 1 1/2 oz. No. 6 English called shot, give patterns ranging from 85 to 330 pellets in 32-inch circle at 40 yards. The same charge of powder and 1 1/2 oz. No. 4 American shot gives 160 to 175 pattern, with penetration which kills ducks at 50 to 75 yards like a stroke of lightning. It is a characteristic of the choke-bore to show its greatest superiority in the large sized shot. What I am about to say will perhaps surprise you as much as the performance surprised me. On trial of the 15-gauge 28-inch modified choke-bore barrels, with 3/8 drachms of powder and 1 1/2 oz. of shot, I got about the same pattern and spread of shot at 25 yards as with the full choke 10-gauge barrels at 40 yards, with tremendous penetration. This is just the performance required of a gun for thick cover, in which you generally find ruffed grouse, woodcock and quail, these birds being killed, with few exceptions, at from 15 to 25 yards.

COL. JOHN BODINE.

DEAR SIR:—The guns arrived all right. We think these last guns you have sent us will place the Greener guns ahead of any other in this country, as guns of other makers don't compare in shooting qualities with them. We unhesitatingly recommend the Greener as far superior to any gun of foreign or domestic manufacture that we have seen. We say this after seeing and using guns of all the most celebrated makers. CARLISLE, JONES & CO. SELMA, Ala.

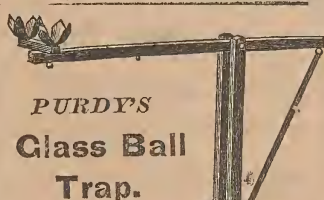
The Greener gun presented by Mr. Squires for the best pointer, and awarded to me, is a close, clean, hard hitter, killing its game at very long distances. It is the second Greener that I have owned and they cannot be beaten. W. W. DILLEY, LAKE CITY, Minn.

Sir—I have a pair of W. W. Greener's breech-loaders (bought of H. C. Squires, of New York), modified choke-bore. I have had an opportunity to test these weapons on birds heavily feathered, and where great penetration was essential to success. I have repeatedly made long shots, always killing the game clean. At a target both guns made a very even distribution of the shot, with extreme penetration.

W. C. FIELD. Sir—The Greener breech-loader purchased of you is very fine indeed, and gives great satisfaction.

WARREN, Pa. ROBERT DENNISTON.

W. W. GREENER, St. Mary's Works, Birmingham, England.



PURDY'S Glass Ball Trap.

(Patent Applied For.)

The best and cheapest trap offered, made of yellow pine and every part warranted. Throws single or double balls in any direction. Traps, each, \$5; solid oak trap, \$6.50; extra rubber springs, per doz., 70c; Purdy glass balls, per 100, \$3. The Purdy Glass Ball is the best and easiest ball to break, almost presents a fat surface to the shooter. Liberal discount to the trade.

W. HOLBERTON, Sole Agent, j821 3m 102 Nassau St., N. Y.

CAMP LOUNGE CO., TROY, N. Y.

Valise Lounge, \$5 to \$8. Trade discount. Pillow and Accordion Bed Canopy with every Lounge and Cot. Valise Cot, Price \$10. Spreads 6 ft. x 2 ft. Jointed Tent Poles: 6 ft. poles, \$3 per set; 9 ft. poles, \$4 per set. Branch Offices—1, Cortlandt St., N. Y. City; 15 Banker Hall Square, Boston; 15 Calle Tejadilla Havana; 416 Sansome St., San Francisco. Agents wanted. j712 eow

EDWIN HACKETT,

LATE OF E. & C. HACKETT,

81 GRACECHURCH STREET, LONDON,

and 84 Lower Loveday street, Birmingham, England,

Breech-Loading Shot-Guns,

With all recent improvements.

R. B.—Pick's fire made central. Fitted with English rebound locks, self-lifting strikers, pistol-grip handles. Guns bored to shoot close. Cleaning, repairing, browning etc. Orders from dealers promptly attended to.

104 WILLIAM STREET, Sept 13 3m New York.

Sportsmen's Goods.

HAMMOCKS



Tents, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Settees, etc. Send for Illustrated Circular.

G. WEBSTER PECK, Manufacturers' Agents, 110 Chambers st., N. Y.

EVERY DESCRIPTION OF Sporting Goods.

GUNS, RIFLES, PISTOLS & FISHING TACKLE, HUNTING AND FISHING SUITS, CAMPING OUTFITS.

Bogardus' Glass Ball Traps, \$10.00; Glass Balls, per hundred, \$2.40.

Send \$2.50 for our "Wasp" revolver, 22 cal. 7 shot nickel-plate, warranted. Satisfaction guaranteed. Send Stamp for Catalogue.

WASHBURN & CO.,

E. O. box 522. 66 JOHN STREET, N. Y. j614.

Amusements, Etc.

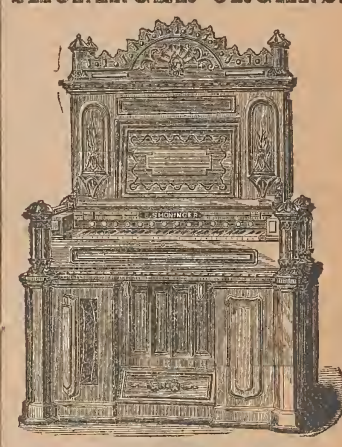
Zoological Garden.

FAIRMOUNT PARK, PHILADELPHIA. Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 6 1y

THE GREAT NEW YORK AQUARIUM, Broadway and 86th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvellous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments. Coney Island Aquarium now open for the summer.

Highest Honors CENTENNIAL WORLD'S AIR, 1876.

SHONINGER ORGANS.



PRONOUNCED UNANIMOUSLY AS THE Best Instruments.

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:

"The B. SHONINGER ORGAN CO.'S exhibit as the best instruments at a price rendering them possible to a large class of purchasers, being a combination of Reeds and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, less liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either shrink, swell or split." THE ONLY ORGANS AWARDED THIS RANK.

This Medal and award was granted after the most severe competition of the best makers, before one of the most competent juries ever assembled.

New styles and prices just issued, which are in accordance with our rule, the BEST ORGANS for the least money.

We are prepared to appoint a few new Agents. Illustrations and Catalogues mailed, postpaid, upon application to

B. SHONINGER ORGAN CO.,

97 to 123 Chestnut Street, NEW HAVEN, CONN.

Bound Volumes OF Forest and Stream.

SEVENTH VOLUME, NOW READY.

First Four Volumes, \$4 each, Others, \$3.50.

A complete set of the FOREST AND STREAM seven volumes, bound handsomely in cloth—a valuable library for the sportsman—can now be obtained on application to this office.

The perfect revolving NEW TROLLING SPON. The best in the world. If not to be found on your fishing tackle stores, these spoons will be forwarded by the manufacturer by mail. Price, \$1 each. JOHN H. MANN, Syracuse, New York. j628

G. C. & B. ZITTLER, GUNSMITHS AND RIFLE GALLERY,

207 Bowery, New York.

Guns, Rifles, Etc.

**SPORTSMEN**

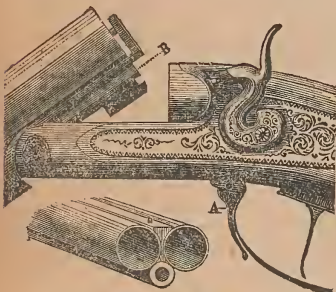
Will find a select assortment of  
Guns,  
Rifles,  
Revolvers,  
Ammunition,  
And all goods appertaining thereto.

Special Attention is Invited to Our New  
**SMITH'S PATENT REVOLVERS,**  
In four sizes of 22, 32, 38 and 41-100 cal.

This new and elegant Arm combines simplicity  
durability, a perfect interchange of all its parts.  
The most critical inspection in process of manufacture,  
and with its patent improvements, make it the  
Most Desirable Revolver in the Market.

A COMPLETE ASSORTMENT OF  
**MAYNARD RIFLES, SHOT GUNS, ETC.**  
Send for Circular.

**FOWLER & FULTON,**  
NO. 300 BROADWAY, N. Y.  
M. FOWLER. HENRY FULTON.



THREE BARRELED

**Breech-Loading Guns.**

(TWO SHOT AND ONE RIFLE)

A new feature in the Sporting Line. Forms a  
light and compact gun from eight to ten pounds,  
giving to sportsmen the very thing so often wanted  
in all kinds of shooting.

PRICES.

- Three barrel, \$75 to \$250.
- Double barrel shot guns.
- Damascus barrel, \$50 to \$200.
- Twist barrel, \$85.

SEND FOR NEW CIRCULAR.

W. H. BAKER & CO.,  
Syracuse, N. Y.

**Sportsman's Depot.**

(ESTABLISHED 1836.)

First premium at World's Fair at New York and  
Centennial Exhibition.



**JOHN KRIDER,**

N. E. Cor. Second and Walnut Sts., Phila.  
**GUNS, RIFLES, PISTOLS,**  
Fishing Tackle, Rods, Reels, Lines, Hooks, Flies,  
Leaders, Snoods, Artificial Bait, Fly Books,  
Etc., Etc.  
Salmon, Bass and Trout Flies Made to Order.  
"Kriders" Celebrated Center Enamel Spitt and  
Gined Bamboo Hooks,  
Birds' Eggs and Birds' Skins in Great Varieties—  
Taxidermy in all its branches  
Spratt's Patent Dog Biscuits.  
Repairing of all kinds. mar-17

For Rifle and Shot Gun Practice.



**DENNISON'S TARGETS.**  
25 to 1000 yds. range  
Target Posters and  
Score Cards.

Also, Targets & Pads  
For testing the pattern  
and penetration of Shot  
Guns.

Sold by Dealers in  
Sporting Goods.

On receipt of Ten Cents a 100-yd. Target will  
be sent by mail, with Circular, containing Major  
Henry Fulton's Rules for PRIVATE PRACTICE, by  
**DENNISON & CO.**  
193 BROADWAY, NEW YORK.

**DECOYS.**  
M. C. WELD,  
Manufacturer of Decoy Ducks, Blacks and Mal-  
lard, 16 inches long; 50 cents each; nice ones.  
87 MANHATTAN ST., Rochester, N. Y.

**E. THOMAS, JR.,**  
GUNS, PISTOLS, SPORTING GOODS,  
174 South Clark Street, Chicago, Ill.



**Paper and Metallic Shells**

FOR

**Breech-Loading Shot Guns,**

Manufactured by the  
**UNION METALLIC CARTRIDGE CO.,**  
BRIDGEPORT, CONN



THE STURTEVANT SHELLS are the easiest reloaded.  
Do not have to unscrew the head nor use an awl to remove  
the exploded caps. THE PATENT MOVABLE ANVILS,  
made of steel wire, will not bend or break.

THE BERDAN PATENT SHELLS, new model, with  
Hobbs' patent waterproof primers, never miss fire, and are  
highly prized by all that have used them.  
PAPER SHELLS.—By repeated experiments and great  
outlay for improved materials, and machinery made ex-  
pressly for the purpose, we can now warrant our BROWN  
PAPER SHELLS equal to any imported. They are sure  
fire, and will not burst in the gun.  
Inquire of any of the dealers in sporting materials for  
the U. M. C. Co.'s shells.  
Not sold at retail by the manufacturers.

**"St. Louis Conical Base Paper Shell."**



Having made important improvements in our Shell, we  
can safely recommend them as equal, if not superior, in  
quality to any Paper Shell manufactured in this country or  
in Europe.

Among the advantages claimed for these Shells, are: A  
saving of 25 per cent. in the use of powder; also the great  
decrease in recoil. The sizes made are No. 10—2 1/2, 2 3/4,  
and 3 inches; No. 12—2 1/2, 2 3/4, and 2 7/8 inches. Longer  
Shells will be made at extra cost. They are not available. Sample, 100, sent by express on receipt of \$1.15  
for No. 12; \$1.30 for No. 10.  
Factory and office, No. 2,329 De Kalb street, St. Louis, Mo.

**St. Louis Patent Shell Manufacturing Company.**

**TO SPORTSMEN IN GENERAL!**

**Headquarters Bohemian Glass Works,  
214 PEARL STREET, NEW YORK.**

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH  
NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting  
for the past year, and having facilities for manufacturing cheaper and better than other establishments,  
have secured the service of that well-known Sportsman,

**IRA A. PAINE,**

to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive  
right to make and sell.

In offering this new ball to the public it will require very little introduction, as in no instance where it  
has been exhibited has it failed to take the place of all others, and is to-day the only perfect substitute for  
a bird in use.

The following is from the New York Herald, Sept. 1:  
THE BRITISH VISITORS RECREATING AT ELM PARK—A TRIAL AT GLASS BALL SHOOTING.—The visiting  
riflemen, accompanied by Judge Gildersleeve, Col. John Bodine and Mr. L. M. Ballard, all of the American  
Team of 1875, arrived at the Park a little before eleven o'clock, and practice shooting was at once com-  
menced. The shooting at glass balls sprung from a steel trap, instead of live pigeons as in Europe, was a  
novelty for the Englishmen. Mr. Ira Paine, who has invented the "feather ball," furnished them for the  
occasion as a compliment to Judge Gildersleeve and his friends. This style of balls gave during the after-  
noon such satisfaction that after the shooting was over the West Side Gun Club held a special meeting to  
adopt them, ordering 1,000 of them forthwith.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300 or boxes of  
500. Send for price list. We intend offering special inducements to the trade.

**Capt. Bogardus' Patent Glass Ball Trap  
and Rough Balls.**

These Traps and Balls patented by Bogardus and used by him many  
thousand times, proves them to be just what is wanted by all

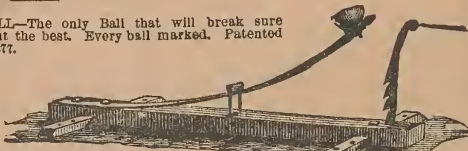
SPORTSMEN'S CLUBS AND AMATEURS.

THE PATENT ROUGH BALL.—The only Ball that will break sure  
when hit by shot. Use none but the best. Every Ball marked. Patented  
April 16, 1877; Traps, March 13, 1877.

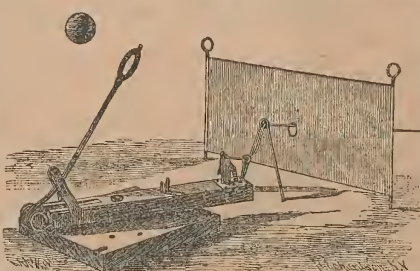
**Geo. E. Hart & Co.,**

NEWARK, N. J.

TRADE SUPPLIED.



**HUBER & MERWIN'S CHAMPION BALL TRAP.**



We call the attention of the fraternity  
to the above trap, claiming to be the ne-  
ziest ultra. It combines compactness  
with durability, and is arranged, by a  
swivel on the bed-plate, to throw a ball  
in any direction or at any elevation un-  
known to the shooter, a screen prevent-  
ing his seeing the direction in which the  
trap is set.

The spring, as the cut will show, is  
made of a steel rod or wire, bent spirally  
at the point of attachment, thus receiving  
the concussion its entire length, and pre-  
venting breakage.

PRICE \$10.

FOR SALE BY

BARTON & CO., Sole Agents,  
337 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP,  
for durability and perfection of its operation, superior to them all, and take pleasure in recommending  
the "Champion" to sporting clubs and my friends. (Signed) IRA A. PAINE, Aug 9 ly



Price \$45. Re-boring and repairing breech-loading shot-guns done promptly and in the very best man-  
ner. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Aug 30 ly

**Sportsmen's Goods.**

**W. H. HOLABIRD,**  
Manufacturer of  
**Specialties in Clothing  
FOR SPORTSMEN,  
Valparaiso, Ind.**

Shooting Suits complete, consisting of Coat, Vest,  
Pants and Cap, \$10. No. 1 shooting coats, water-  
proof and first-class in every particular, sent by  
mail, post-paid, \$6.

Holbird's New Game Bag; weighs 12 ounces.  
The most convenient and coolest garment ever  
offered to Sportsmen. Can be used in place of a  
coat; room for 50 shells and 75 snipe or quail; by  
mail for \$2.

Holbird's New Cartridge Vest, capacity for fifty  
shells; simple and admirable for boat shooting;  
\$2.50. Fine Linen, Corduroy and Fustian suits made  
to order in the neatest and most desirable style.  
Send 25 cents for my book on Dog Breaking and  
catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods. 1512 ft

**Florida Outfits.**

PORTABLE BEDS,  
CAMP STOVES,  
LOUNGES, TABLES,  
BOATS, Etc., Etc.

FLORIDA FISHING TACKLE, manufactured on  
purpose to withstand the heavy fishing.  
THE NEW PORTABLE TABLE, forming a lock-  
box, 30x24 1/2 inches. Price \$6.50.

W. HOLBERTON, Sole Agent,  
P. O. Box 5, 102. 102 Nassau Street, N. Y.  
Sept 27

**SOLA HAT.**



This Hat is made of waterproof duck, dead grass  
color, and in the same style as East India Hats; is  
the coolest and best yet offered to sportsmen.

Absolute Guarantee against Sunstroke.  
For sale by all dealers in sportsmen's goods, or  
sent by mail, securely packed, postage prepaid,  
price \$3.

Address,  
**THOMSON & SON,**  
301 Broadway, New York.

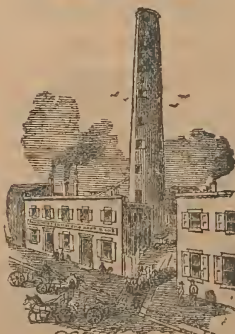
P. O. box 1,016.  
Send stamp for illustrated catalogue of sports-  
men's goods. Ag 3 ft

**IMPROVED  
Gaiter Pantaloon,**

And First-class Sporting Outfits. Send for  
Circular.

**GEO. C. HENNING,**  
WASHINGTON CITY.

Founded July 4, 1803.



Thos. W. Sparks,

**Shot & Bar Lead**

MANUFACTURER.

Office 121 Walnut Street, Philadelphia.

**Magic Lanterns and Stereopticons.**

**E. & H. T. ANTHONY & CO.,** 531 Broadway,  
N. Y., opposite Metropolitan. Stereoscopes  
and Views; Graphoscopes, Chromos and Frames;  
Albums, Photographs of Celebrities, Photographic  
Transparencies, Convex Glass, Photographic Ma-  
terials. Awarded First Premium at Vienna and  
Philadelphia. 7 doc 25

**B. GREENWOOD,**

Manufacturer of Aquaria Greenhouse and Aquarium  
Cement, and dealer in Fish Food, Gold Fish, Water  
Flasks, Fish Globes, and aquaria stock of all descrip-  
tions. Canaries, Cages, Rustic Baskets, Bird Houses,  
Sea Shells, etc., wholesale and retail.

Nos. 11 1/2 to 13 COLLEGE PLACE,  
Near Murray St. New York, N. Y.

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year.  
Ten Cents a Copy.

NEW YORK, THURSDAY, OCTOBER 4, 1877.

Volume 9.—No. 9.  
No. 111 Fulton St., N. Y.

### A VINTAGE SONG.

ONCE more the year its fullness pours  
To cheer the heart of toil;  
Once more we take with gratitude  
The blessing of the soil.  
I hear the children laugh and sing,  
They pull the grapes together;  
And gladness breathes from everything  
In this October weather.

The winter days were long and dark,  
The spring was slow to come?  
And summer storms brought fear and doubt  
To many a humble home.  
But rain and sunshine had their will  
And wrought their work together,  
And see! we hear our baskets still,  
In this October weather.

My heart has had its winter, too,  
And lain full bare and gray;  
I did not think a spring would come,  
Much less a summer day.  
How little did I dream that life  
Would bring us two together,  
And I should be a happy wife  
In this October weather!

Doubtless the frosts will come again,  
And some sweet hopes must die;  
But we shall bear the passing pain,  
And smile as well as sigh—  
Nor let us cloud with fears of ill  
This golden hour together;  
For God is in His garden still  
In this October weather.

E. D. R. BLANCIARD in *Scribner's* for October.

## South American Reminiscences.

### Third Paper.

A VISIT was made to the magnificent retreat for the insane, known as the Hospital Dom Pedro Segundo, in the beautiful suburb of Botafogo, upon the small bay of the same name. It is difficult to imagine an edifice more appropriate for the purpose to which it is devoted. Cleanliness and cheerfulness seemed to be the order in this charity, and the classification of patients unexcelled. In furniture, attendance, appointments, etc., it surpasses the most celebrated of Northern institutions. Imperial regulations are very strict, and the modes of reporting and journaling cases very thorough.

The day following this visit the United States and Brazilian Mail Steamer arrived from New York, and all hands were the recipients of letters and papers from home, which were eagerly devoured. As eager an interest was taken in providing answers to the missives from loved ones at home, for the same steamer that bore them also brought orders for us to proceed without delay to Monte Video, and there report to Rear Admiral Chas. H. Davis, for duty in the South Atlantic Squadron, and on the Plata if necessary.

The mail steamer also brought news of the earthquake that occurred in the harbor of St. Thomas on the 15th of November, and which she had escaped by being delayed one day in sailing from New York; she arriving the 19th. Three of our naval vessels, the *Susquehanna*, Admiral Palmer's Flag-ship, *De Soto*, and the *Monongahela* were in the harbor. The *Susquehanna* escaped without damage, but the *De Soto* was swept from her anchorage by the violence of the waves, both her heavy chains breaking, and was thrown violently upon the iron piles of a new wharf, but the next wave released her, carrying the ship into deep water, she sustaining no serious damage. The *Monongahela*, anchored off Frederickstadt, island of St. Croix, was carried by the wave over the warehouses and into one of the streets of the town. The returning sea deposited her upon a coral reef at the water's edge. Only five of the lives on board were lost, and, more wonderful, the ship herself sustained but little injury. She was relaunched the following May, and sailed for New York. The devastation at St. Thomas was fearful; the shore was strewn with wrecks, and many small craft were hurled high and dry upon the shore. Others were sunk, their upper spars appearing as monuments to the coffins which they had become, while those that escaped absolute wreck lay at anchor battered as though hav-

ing passed through a severe naval engagement. The warehouses were turned into deadhouses and hospitals, where hundreds of bodies lay awaiting identification. The buildings suffered terribly, blinds, balconies, roofs, awnings and decorative adjuncts were destroyed, and the streets obstructed with the debris. Even the lighthouse was destroyed, and the barracks, where were quartered the troops of His Most August Majesty, the King of Denmark, was gutted, the roof soaring away over the town. Had it not been for the shelter afforded by the semi-circle of high hills that surround the town the destruction must have been complete. The commander of a Spanish Corvett exhibited great presence of mind, cutting away his masts at the very outset, and traversed the harbor under full head of steam rendering every assistance possible.

Among other public departments visited by us before our departure was the post-office. The Brazilian mode of delivery is certainly unique; the mail is sorted into heaps alphabetically, but by the given name instead of the surname. These are then arranged on counters in apartments, to which a certain number of individuals are admitted at a time, who sort out their own mail and retire, making room for others.

No one should leave Rio without visiting the custom house where all is life and bustle. The vast warehouses have an extended water front, with all the conveniences necessary for landing goods under cover, which, when once out of the lighters—vessels are not allowed at the quays—are rapidly stored in their respective departments until released by a requisition of due form. The handling of the enormous quantities of goods is facilitated by a network of iron tramways extending to all parts of the buildings. At three in the afternoon, the hour of closing, the *Rua Direita* presents a busy scene, being blocked by the crowd of clerks and negro porters whose shrill voices and ludicrous attempts to be the first served, provoke the mirth of the spectator, while around the large gate, pianos and agricultural implements, boxes and hampers, bales and casks, wine pipes and bundles of cordage are jumbled into an incongruous mass. Fifteen minutes later all has vanished, and this portion of the street is as silent as if a funeral were in progress.

The Capital is well provided with educational facilities. Besides the public schools and numerous academies there is the Imperial Academy of Medicine with unsurpassed facilities for the student, while the college of Dom Pedro II ranks with it in facilities for the study of literature and the arts. Here too are the Military and Naval Academies and the St. Joseph Theological Seminary. At San Paulo and Pernambuco are the Law Colleges, which have a high reputation.

For the scientific medical man Rio presents better advantages than any American city, and here are men whose eminence in Europe caused them to be sought out and tempted to Brazil by the advantages offered by the Imperial government.

Besides these institutions there are a number of associations and societies for the diffusion of knowledge and the advancement of science.

The *Biblioteca Nacional* contains upwards of one thousand thousand volumes, a large share of which were brought to Brazil by Dom John VI., from Portugal at the time of his flight from the advancing columns of Marshal Junot, whose vanguard reached the heights of Lisbon as the fleet, with that self-exiled Prince was leaving the Tagus. This library has been increased largely by purchase and also numerous private benefactions, notably that of the late Jose Bonifacio de Andrada, Prime Minister during the reign of Dom Pedro I. This is rich in the classics and ancient literature.

An Imperial Academy of fine arts was founded by decree of the National Assembly in 1824, and is well supplied as to faculty, and furnishes instruction in painting, drawing, architecture, sculpture and design. The annual attendance is in the neighborhood of one hundred. The academy also provides for the support of a number of its most meritorious alumni who may choose to study ancient and modern art in Europe.

A *Conservatorio de Musica* has been established by the State, where instruction is given to both sexes in vocal or instrumental music, and also a *Conservatorio dramatico*. I have before mentioned the extraordinary musical talents exhibited by the Brazilians, and in connection with the foregoing this leads me to speak of the Opera.

In Brazil the Opera is supported by the government and rivals in properties, *artistes* and appointments those of Europe. Here Ristori obtained laurels before coming to America, and

Gottschalk, Jenny Lind, Patti and Rachel have delighted the Brazilians. Sunday night is the great opera night, and then the house is filled with the beauty and nobility of the Capital, and the display of toilets and diamonds is dazzling to the beholder. Gentlemen are not admitted unless in full evening dress.

Of societies there are the Imperial Agriculture, the statistical, the Auxiliadora and the Brazilian Historical Geographical Institute. All enroll many public spirited men and notables of the Empire. The latter exceeds in point of numbers and in talent; its meetings are largely attended, and the most punctual of its members is His Majesty, Dom Pedro II. A quarterly is published giving the proceedings of the Institute at length, and containing a valuable collection of articles.

The National Museum is open to visitors without charge, and from appearances well patronized. Here is a rich collection of weapons, dresses, etc., of the aboriginal tribes of Brazil, and a collection of native ores and geological specimens.

Sunday we attended High Mass at the Imperial Chapel; the music was grand, the organ being assisted by a full military band, and the anthems were most impressive. After mass we took gondola to the Botanical Garden, passing through the suburb of Botafogo and under the shadow of Corcovado. The streets were filled with slaves, some nearly nude, others tricked with ribbons, handkerchiefs and bright colors. One is struck with the diversity of features among the slaves, showing representatives of a greater number of African tribes than are encountered at home. In strong contrast with the jolly, ever-grinning Congo we see the stately Minas of haughty bearing, statuesque poses, superbly moulded limb and graceful forms. The Mina is very strong, a perfect Hercules in strength, and may be seen carrying upon his head burdens that four men at home would consider heavy. It is said that they are of the religion of Islam, and all speak and write Arabic readily. From their proud demeanor, flashing eyes and studied reticence, one would suppose they were hardly the material to make slaves of. The gentleman who owns a Mina always treats him with consideration. More than usually intelligent, many early obtain their freedom, and become useful citizens. Such are the facilities for emancipation in Brazil that no negro need remain a slave unless he chooses, and on regaining his freedom his rise in the world and in society is only limited by his qualifications.

Arriving at the Garden we enter the avenue of the Palma Real, as unique as it is beautiful. Each palm is but the counterpart of the next, straight and firm as marble pillars, and rising to a height of eighty feet. Beyond is seen the rolling sea, while the lofty mountains cast their shadows to assist the arboraceous shade. The walks are winding, and overhung with trees. Here may be seen the North American maple, the South Sea Island breadfruit, sandal wood from Marquesas, tea plants from China and Japan, camphor, cinnamon, pepper and cloves from Ceylon, but lacking the fragrance they shed when on their native soil. Oranges, mangoes, mimosas and olives overhang every walk, and the croton and plantain cast in every coppie the deep umbrage of their forest gloom. At one side a silver streamlet dashes down the steep side of the Corcovado, and near by is a mound crowned with an arbor vitae turned bower. Not far distant stands a nunnery where in former times, it is said, husbands departing on a journey were wont to incarcerate their wives.

Sunday is a day of pleasure in Rio, and is devoted to amusements, balls, theatres and military parades. Foreign merchants usually close their places of business, but the natives make as great display as on week days. We obeyed the old proverb, "When in Rome do as the Romans do," and spent our last evening at the opera. Returning at ten, we found the streets as deserted as those of a New England village at midnight, except here and there some poor slave scurrying home as fast as his heels would carry him, fearful lest the hour should strike, and he fall into the hands of the police; for if not housed by ten he is arrested and committed to the calaboose until his master ransoms him by a smart fine. The law is very strict in this particular. The same rule is not applied to freedmen; yet one would think it equally in force without regard to class or caste, for the Brazilian himself practices the old saw of "early to bed and early to rise."

Seated in the stern sheets of the cutter that was bearing us swiftly over the bosom of the placid Nitherhoi to our ship, many and regretful were the glances thrown back upon the

beauteous city to which we were to bid adieu on the morrow. The moon had not yet risen, and the evening remained dark. This circumstance heightened the beauty of the city, and the effect her numberless lights lining the immense borders of the city to the water's edge were reflected from the water in quivering flashes. The outlines of the hills were defaced against the darkness by rows of lamps extending over their verdured summits; an occasional ferryboat with its various colored lamps, with every turn of the wheel furrows through a diamond sea; every dip of the oars, every ripple from the evening breeze causes millions of phosphorescent scintillations to illuminate the dark waters. We sit on deck smoking and chatting, loath to lose the beauty spread before us, and drinking in the novelty and splendor of the scene. What! eight bells? Yes, midnight; and we regretfully seek our cots bearing memories of the lovely panorama that will never be forgotten.

Slowly we moved down the bay in the early morning light, passing under the guns and frowning battlements of the fortress of Villagrande and out between the fortifications of Santa Cruz and San Jo-ao, past the Sugar loaf, and we bid adieu to the lovely Niterhoi and the metropolis of San Sebastian de Rio de Janeiro. This harbor is situated just within the Torrid zone, and communicates as before described with the wide rolling Atlantic, by a deep and narrow passage between two granite mountains. The entrance is so safe as to render the services of a pilot unnecessary. The fortresses occupy so commanding positions at the mouth of the harbor, upon the islands and surrounding heights as to make the entrance of a hostile navy practically impossible, at least to wooden vessels and the lighter armored ships. Rio is the largest city of South America, and the third in size upon the western Continent, and boasts an antiquity greater than that of any city in the United States. Being at once the commercial emporium and political Capital of a country which embraces greater territorial dominion than any other country of the New World, together with natural advantages second to none, the position, scenery and increasing magnitude of its capital render it a metropolis worthy of a great empire. And now we are out on the broad Atlantic. What a contrast! We have exchanged a quiet harbor, gentle breezes and a climate of almost eternal sunshine for tumbling ocean and fierce storms, and are soon to encounter a region of snow and ice.

The following day at meridian we were two hundred and fifty miles from our anchorage at Rio, with the breeze directly aft. The weather was extremely warm, and the night quite oppressive, particularly when occupying the staterooms. The wind sails, however, made the wardrobe far more tenable than it otherwise would have been. Sailors must be always prepared for changes; to-day suffering the heat and lassitude induced, of the tropics, and to-morrow suffering from Borean blasts and discomforts of an Arctic winter.

For several days the weather was close and sultry, while the sky was filled with a dull haze; the sea smooth, and the breeze almost stationary. We gathered daily under the awning on deck in cool, white duck and panamas, reading, smoking and chatting, varied only by watching the quartermaster leaving the log, and laying wagers on the result. Now four! four and a half! six knots! good! pslaw, only three! and so on as the breezes varied in intensity. How we chafed under slow sailing, though we had nothing in the world to hurry for, and even so slow a rate as sailing as three and four knots covers a great deal of space in twenty-four hours. The fifth day from Rio we touched at that entomological paradise known as the Island of Santa Catharina to take in coal, for here the government had stored some hundreds of tons. Here are found specimens of the *Lepidoptera*, beside which those of all other parts of the world pale, many butterflies measuring seven inches from wingtip to wingtip when spread. Here, too, are found in great numbers the *Coccujia* beetles, which glow with such intensity at night that if eight or ten are placed in a vial the light will be strong enough to read by. A magnificent fire fly is also found here, which ladies are in the habit of enclosing in gauze nets, and wearing as ornaments in the ballroom. The island has many attractions; its fruits are unrivalled, and the scenery wild and picturesque. The climate, though warm, is so modified by a sea breeze that the heat is never oppressive, and the birds are remarkable for the sweetness and brilliancy of their music. The salubrity of the air is such that it is often visited by invalids from northern cities of the Empire, and even from distant countries. Here too, is where a large share of the fish scale and shell jewelry is manufactured. A writer has justly said, "Could Eden have taken its departure from the East in the shape of an island, I should think it had anchored itself here, under the name of St. Catharine."

"How sweetly does the moonbeam smile  
To-night upon you leafy isle!  
Oft in my fancy's wanderings,  
I've wished that little ate had wings,  
And we, with faintly airy bowers,  
Were wafted off to seas unknown,  
Where not a pulse should beat but ours,  
And we might live, love, die alone—  
Far from the cruel and the cold—  
Where the bright eyes of angels only  
Should come around us, to behold  
A paradise so pure and lonely."

We only remained at St. Catharines a few hours. Our Captain hoped to have met the Admiral here, and perhaps be relieved from going to Montevideo, for he had no desire to serve under the gentleman, having had sufficient experience as to his vagaries. We juniors, however, were anxious to see the Plata. In less than twenty-four hours we experienced a material change in climate, having encountered a *pampero*—a wind that gives no admonition, but always springs upon you unawares—and though we had heretofore sweltered in the lightest summer clothing we were now uncomfortably cold, even with the warmest apparel. Many were suffering from colds, and for the first time it was found necessary to place several men on the binnacle list. The apothecary was several times asked if he could not prescribe for the monkeys, numbers of which had been brought on board by the men at Para. The sudden change was fatal to them, and many of the intolerable nuisances died. In fact none were left alive when we reached the Pacific. My narcotics were kept in their cage near the heater plentifully supplied with wool, and managed to survive until just before we reached the Straits, when they too succumbed. One mischievous and villainous little beast became the victim of my own curiosity. Several times he had been caught in the officers' staterooms and severely thrashed, but punishment seemed to be only a new incentive to his curiosity. He would destroy every scrap of paper that he could lay his paws on, and on one occasion he beautifully mixed all the contents of my dressing-case and adorned himself with pomade, capping all with a liberal application of lather and perfume. Another time I crouched in just in time to see him grab a piece of opium, from which I had been making pills; on discovering my presence he hastily stuffed it in his cheeks and scampered up the companion. Being well satisfied with

the meal he had taken I did not pursue, and the dose took effect, for on leaving the wardrobe he rushed to the cross-jack stay which he nimbly clambered, then he got on the weather cross-jackyard arm and proceeded to masticate the morsel, which, having been mixed with confection of roses, he found palatable. The effects of the drug were soon apparent for he went to sleep, and finally tumbled from his lofty perch into the sea.

Five days from Santa Catharina we entered the broad mouth of the Plata, and anchored the following day in front of Monte Video, the Capital and principal city of Uruguay or Banda Oriental. Here we found the Guerrerie, flagship, the Shamokin and Kansas, the latter having preceded us by two days. The Wasp, which also belonged to the squadron, was up the Uruguay with the Admiral. All the talk in the fleet was of the war then in progress between Paraguay on the one hand, and Brazil, Uruguay and the Argentine Confederation on the other. Rear Admiral Godon had been in command until the previous July, when he was superseded by Rear Admiral Bell, owing to the extreme self-importance of the former, who was so puffed up with his own importance and the consequent littleness of every one else, that his name had become a byword and a reproach upon the United States Government. Even Minister Webb, our representative at the Imperial Court of Brazil, was forced to speak severely of the conduct of Admiral Godon, and this was the more marked from the fact that Hon. Mr. Webb always had a good word for every one. All the American ministers had been gratuitously insulted by this commander of the South American squadron. With the officers of the squadron he bore an unenviable reputation from his ungentlemanly conduct. The new Admiral, as might be expected, was but little improvement, as Porter would not send any one who was not a firm believer in the Porter theory, viz., that all officers in the United States service, civil or naval, were inferior to the *line* officers of the Navy. I may here digress sufficiently to show why the United States Navy has degenerated, and why it is impossible to fill the vacancies in the staff that occur. A little before this D. D. Porter, as Vice-Admiral was called to act as an assistant to the Secretary of the Navy. He proceeded to issue a new Bluebook, or Naval Regulations, in which every ship was saddled with two captains, one ornamental, the other useful. Next he declared that Surgeons, Chaplains, Paymasters and Chief Engineers had no rank except by courtesy, and hence were subordinate to the lower line officer; thus making the half-fledged youth who was just from the Naval Academy, and holding a warrant as midshipman, the superior of all the staff, even if they held the rank of Captain, which corresponds to Colonel in the army. The duties of Admiral were thus defined: "To command a foreign squadron when he chooses;" this was all, but the Vice-Admiral was to be the coadjutor of the Secretary of Navy. This was with the design of shelving Farragut, and allowing no interference from him in matters naval; in fact, making Porter the superior of his superior in rank. After the death of Admiral Farragut, of course the duties formally assigned to the Vice-Admiral were now transferred to the Admiral. Further on—I am speaking of a time subsequent to our arrival in Monte Video—all badges of rank, etc., were taken away from the staff, while the midshipman was fitted out with a gorgeous shoulder knot. The constant insults thus heaped upon the staff officers were too much, and many left the service of which they were an ornament, others remained for a time trusting that Congress would right the matter, which it did in part, but so dilatory and partial was its action that many more had left.

## INTRODUCTION AND SUCCESSION OF VERTEBRATE LIFE IN AMERICA.\*

By O. C. MARSH.

PRESIDENT OF THE BIOLOGICAL SECTION OF THE AMERICAN ASSOCIATION.

### FIFTH PAPER.

THE Artiodactyles, or even-toed Ungulates, are the most abundant of the larger mammals now living; and the group dates back at least to the lowest Eocene. Of the two well marked divisions of this order, the Bunodonts and the Selenodonts, as happily defined by Kowalevsky, the former is the older type, which must have separated from the Perissodactyle line after the latter had become differentiated from the primitive Ungulate. In the Coryphodon Beds of New Mexico, occurs the oldest Artiodactyle yet found, but it is at present known only from fragmentary specimens. These remains are clearly Sulline in character, and belong to the genus *Eoehys*. In the beds above, and possibly even in the same horizon, the genus *Helohyus* is not uncommon, and several species are known. The molar teeth of this genus are very similar to those of the Eocene *Egyracotherium*, of Europe, which is supposed to be a Perissodactyle, while *Helohyus* certainly is not, but apparently a true lineal ancestor of the existing pigs. In every vigorous primitive type which was destined to survive many geological changes, there seems to have been a tendency to throw off lateral branches, which became highly specialized and soon died out, because they are unable to adapt themselves to new conditions. The narrow path of the persistent Sulline type, throughout the whole Tertiary, is strewn with the remains of such ambitious offshoots, while the typical pig, with an obstinacy never lost, has held on in spite of Catastrophes and Evolution, and still lives in America to-day. In the lower Eocene, we have in the genus *Parahyus* apparently one of these short-lived, specialized branches. It attained a much larger size than the true lineal forms, and the number of its teeth was reduced. In the Dinocerans Beds, or middle Eocene, we have still, on or near the true line, *Helohyus*, which is the last of the series known from the American Eocene. All these early Sullines, with the possible exception of *Parahyus*, appear to have had at least four toes, all of usable size.

In the lower Miocene, we find the genus *Perchyrus*, seemingly a true Sulline, and with it remains of a larger form, *Elotherium*, are abundant. The latter genus occurs in Europe

in nearly the same horizon, and the specimens known from each Continent agree closely in general characters. The name *Pelonax* has been applied erroneously to some of the American forms; but the specimens on which it was based clearly belong to *Elotherium*. This genus affords another example of the aberrant Sulline offshoots, already mentioned. Some of the species were nearly as large as a Rhinoceros, and in all there were but two serviceable toes; the outer digits, seen in living animals of this group, being represented only by small rudiments concealed beneath the skin. In the upper Miocene of Oregon, Sullines are abundant, and almost all belong to the genus *Thinhoyus*, a near ally of the modern Peccary (*Dicotyles*), but having a greater number of teeth, and a few other distinguishing features. In the Pliocene, Sullines are still numerous, and all the American forms yet discovered are closely related to *Dicotyles*. The genus *Platygonus* is represented by several species, one of which was very abundant in the Post-Tertiary of North America, and is apparently the last example of a side branch, before the American Sulline culminate in existing Peccaries. The feet in this species are more specialized than in the living forms, and approach some of the peculiar features of the ruminants; as for example a strong tendency to coalesce in the metapodial bones. The genus *Platygonus* became extinct in the Post-Tertiary, and the later and existing species are all true Peccaries. No authenticated remains of the genera *Sus*, *Porcus*, *Phacochoerus*, or the allied *Hippopotamus*, the Old World Sullines, have been found in America, although several announcements to that effect have been made.

In the series of generic forms between the lower Eocene *Eoehys* and the existing *Dicotyles*, which I have very briefly discussed, we have apparently the ancestral line ending in the typical American Sullines. Although the demonstration is not yet as complete as in the lineage of the Horse, this is not owing to want of material, but rather to the fact that the actual changes which transformed the early Tertiary pig into the modern Peccary were comparatively slight, so far as they are indicated in the skeletons preserved, while the lateral branches were so numerous as to confuse the line. It is clear, however, that from the close of the Cretaceous to the Post-Tertiary, the Bunodont Artiodactyles were especially abundant on this Continent, and only recently have approached extinction.

The Selenodont division of the Artiodactyles is a more interesting group and, so far as we now know, makes its first appearance in the upper Eocene of the West, although forms, apparently transitional, between it and the Bunodonts occur in the Dinocerans Beds, or middle Eocene. These belong to the genus *Homoacodon*, which is very nearly allied to *Helohyus* and but a single step away from this genus toward the Selenodonts. By a fortunate discovery, a nearly complete skeleton of this rare intermediate form has been brought to light, and we are thus enabled to define its characters. Several species of *Homoacodon* are known, all of small size. This primitive Selenodont had forty-four teeth, which formed a nearly contiguous series.

The molar teeth are very similar to those of *Helohyus*, but the cones on the crowns have become partially triangular in outline, so that when worn, the Selenodont pattern is clearly recognizable. The first and second upper molars, moreover, have three distinct posterior cusps, and two in front; a peculiar feature, which is seen also in the European genera *Dichobune* and *Catnottherium*. There were four toes on each foot, and the metapodial bones were distinct. The type species of this genus was about as large as a cat. With *Helohyus*, this genus forms a well marked family, the *Helohyidae*.

In the *Diplocodon* horizon of the upper Eocene, the Selenodont dentition is no longer doubtful, as it is seen in most of the *Artiodactyla* yet found in these beds. These animals are all small, and belong to at least three distinct genera. One of these, *Eomeryx*, closely resembles *Homoacodon* in most of its skeleton, and has four toes, but its teeth show well marked crescents, and a partial transition to the teeth of *Hypopotamus*, from the Eocene of Europe. With this genus, is another (*Parameryx*), also closely allied to *Homoacodon*, but apparently a straggler from the true line, as it has but three toes behind. The most pronounced Selenodont in the upper Eocene is the *Oromeryx*, which genus appears to be allied to the existing Deer family or *Cervidae*, and if so is the oldest known representative of the group. These facts are important, as it has been supposed, until very recently, that our Eocene contained no even-toed mammals.

In the lowest Miocene of the West, no true crescent-toothed *Artiodactyla* have as yet been identified, with the exception of a single species of *Hypopotamus*; but in the overlying beds of the middle Miocene, remains of the *Oreodontia* occur in such vast numbers as to indicate that these animals must have lived in large herds around the borders of the lake-basins in which their remains have been entombed. These basins are now the denuded deserts so well termed *Mauvaises Terres* by the early French trappers. The most specialized, and apparently the oldest, genus of this group is *Agricharicus*, which so nearly resembles the older *Hypopotamus*, and the still more ancient *Eomeryx*, that we can hardly doubt that they all belonged to the same ancestral line. The typical Oreodonts are the genera *Oreodon* and *Epreodon*, which have been aptly termed by Leidy ruminating hogs. They had forty-four teeth, and four well-developed toes on each foot. The true Oreodonts, which were most numerous east of the Rocky Mountains, were about as large as the existing Peccary, while *Epreodon*, which was nearly twice this size, was very abundant in the Miocene of the Pacific slope.

In the succeeding Pliocene formation, on each side of the Rocky Mountains, the genus *Merychyrus* is one of the prevailing forms, and continues the line on from the Miocene, where the true Oreodonts became extinct. Beyond this we have the genus *Merychyrus*, which is so nearly allied to the last that they would be united by many naturalists. With the close of the Pliocene this series of peculiar ruminants abruptly terminates, no member surviving until the Post-Tertiary, so far as known.

A most interesting line, that leading to the Camels and Llamas, separates from the primitive Selenodont branch in the Eocene, probably through the genus *Parameryx*. In the Miocene we find in *Puotherium* and some early allied forms unmistakable indications that the Cameloid type of ruminant had already become partially specialized, although there is a complete series of incisor teeth, and the metapodial bones are distinct. In the Pliocene, the Camel tribe was, next to the Horses, the most abundant of the larger mammals. The line is continued through the genus *Procamelus*, and perhaps others, and in this formation the incisors first begin to diminish, and the metapodials to unite. In the Post-Tertiary we have a true *Asubenia*, represented by several species, and others in South America, where the Alpacas and Llamas still survive. From the Eocene almost to the present time, North America has been the home of vast numbers of the *Camelidae*,

\* Delivered before the American Association for the Advancement of Science, at Nashville, Tenn., Aug 31, 1871.

and there can be little doubt that they originated here and migrated to the Old World.

Returning once more to the upper Eocene, we find another line of descent starting from *Oromeryx*, which, as we have seen, had apparently then just become differentiated from the older *Bunodont* type. Throughout the middle and upper Miocene this line is carried forward by the genus *Leptomeryx* and its near allies, which resemble so strongly the Pliocene *Cervidae* that they may fairly be regarded as their probable progenitors. Possibly some of these forms may be related to the *Trappida*, but at present the evidence is against it.

The Deer family has representatives in the upper Miocene of Europe, which contains fossils strongly resembling the fauna of our lower Pliocene, a fact always to be borne in mind in comparing the horizon of any group in the two continents. Several species of *Cervidae*, belonging to the genus *Ovis*, are known from the lower Pliocene of the West, and all have very small antlers, divided into a single pair of tines. The statement recently published that most of these antlers had been broken during the life of the animals is unsupported by any evidence, and is erroneous. These primitive Deer do not have the orbit closed behind, and they have all the four metapodial bones entire, although the second and fifth are very slender. In the upper Pliocene, a true *Cervus* of large size has been discovered. In the Post-Tertiary, *Cervus*, *Aces* and *Tarandus* have been met with, the latter far south of its present range. In the caves of South America remains of *Cervus* have been found, and also two species of Antelopes, one referred to a new genus, *Leptotherium*.

The Hollow-horned Ruminants, in this country, appear to date back no further than to the lower Pliocene, and here only a single species of *Bison* has as yet been discovered. In the Post-Tertiary this genus was represented by numerous individuals and several species, some of large size. The Musk Ox (*Oobos*) was not uncommon during some parts of this epoch, and its remains are widely distributed.

No authentic fossil remains of true Sheep, Goats or Giraffes have as yet been found on this continent.

The Proboscidians, which are now separated from the typical Ungulates as a distinct order, make their first appearance in North America in the lower Pliocene, where several species of *Mastodon* have been found. This genus occurs, also, in the upper Pliocene and in the Post-Tertiary, although some of the remains attributed to the latter are undoubtedly older. The Pliocene species all have a band of enamel on the tusks, and some other peculiarities observed in the oldest *Mastodons* of Europe, which are from essentially the same horizon. Two species of this genus have been found in South America, in connection with the remains of extinct Llamas and Horses. The genus *Elephas* is a later form, and has not yet been identified in this country below the upper Pliocene, where one gigantic species was abundant. In the Post-Pliocene remains of this genus are numerous. The hairy Mammoth of the Old World (*Elephas primigenius*) was once abundant in Alaska, and great numbers of its bones are now preserved in the frozen cliffs of that region. This species does not appear to have extended east of the Rocky Mountains or south of the Columbia River, but was replaced there by the American Elephant, which preferred a milder climate. Remains of the latter have been met with in Canada, throughout the United States and in Mexico. The last of the American *Mastodons* and *Elephants* became extinct in the Post-Tertiary.

Another of the interesting changes in mammals during Tertiary time was in the teeth, which were gradually modified with other parts of the structure. The primitive form of tooth was clearly a cone, and all others are derived from this. All classes of vertebrates below mammals, namely, Fishes, Amphibians, Reptiles and Birds, have conical teeth, if any, or some simple modification of this form. The Edentates and Cretaceans with teeth retain this type, except the Zeuglodonts, which approach the dentition of aquatic Carnivores. In the higher mammals, the incisors and canines retain the conical shape, and the premolars have only in part been transformed. The latter gradually change to the more complicated molar pattern, and hence are not reduced molars, but transition forms from the cone to more complex types. Most of the early Tertiary mammals had forty-four teeth, and in the oldest forms the premolars were all unlike the molars, while the crowns were short, covered with enamel, and without cement. Each stage of progress in the differentiation of the animal was, as a rule, marked by a change in the teeth; one of the most common being the transfer, in form at least, of a premolar to the molar series, and a gradual lengthening of the crown. Hence it is often easy to decide from a fragment of a jaw to what horizon of the Tertiary it belongs. The fossil horses of this period, for example, gained a grinding tooth for each toe they lost, one in each epoch. In the single-toed existing horses, all the premolars are like the molars, and the process is at an end. Other dental transformations are of equal interest, but this illustration must suffice.

The changes in the limbs and feet of mammals during the same period were quite as marked. The foot of the primitive mammal was doubtless plantigrade, and certainly five-toed. Many of the early Tertiary forms show this feature, which is still seen in some existing forms. This generalized foot became modified by a gradual loss of the outer toes, and increase in size of the central ones, the reduction proceeding according to systematic methods, differing in each group. Corresponding changes took place in the limb bones. One result was a great increase in speed, as the power was applied so as to act only in the plane of motion. The best effect of this specialization is seen to-day in the Horse and Antelope, each representing a distinct group of Ungulates with five-toed ancestors.

If the history of American Mammals, as I have briefly sketched it, seems as a whole incomplete and unsatisfactory, we must remember that the genealogical tree of this class has its trunk and larger limbs concealed beneath the debris of Mesozoic time, while its roots doubtless strike so deeply into the Paleozoic that for the present they are lost. A decade or two hence we shall probably know something of the mammalian fauna of the Cretaceous, and the earlier lineage of our existing mammals can then be traced with more certainty.

The results I have presented to you are mainly derived from personal observation; and since a large part of the higher vertebrate remains found in this country have passed through my hands, I am willing to assume full responsibility for my presentation of the subject.

For our present knowledge of the extinct Mammals, Birds and Reptiles of North America, science is especially indebted to Leidy, whose careful, conscientious work has laid a secure foundation for our vertebrate paleontology. The energy of Cope has brought to notice many strange forms, and greatly enlarged our literature. Agassiz, Owen, Wyman, Baird, Hitchcock, Deane, Emmons, Allen, Allen, Gibbs, Jefferson, DeKay and Harlan deserve honorable mention in the history of this branch of science. The South American extinct ver-

tebrates have been described by Lund, Owen, Burmeister, Gervais, Huxley, Flower, Desmarest, Aymard, Pictet and Nodot. Darwin and Wallace have likewise contributed valuable information on this subject, as they have on nearly all forms of life.

In this long history of ancient life I have said nothing of what Life itself really is. And for the best of reasons, because I know nothing. Here at present our ignorance is dense, and yet we need not despair. Light, Heat, Electricity and Magnetism, Chemical Affinity and Motion, are now considered different forms of the same force; and the opinion is rapidly gaining ground that Life or vital force is only another phase of the same power. Possibly the great mystery of Life may thus be solved, but whether it be or not, a true faith in Science admits no limit to its search for Truth.

(To be Continued.)

A CRUISE AROUND NANTUCKET.

WE lay over a couple of days at Nantucket, took out our bowsprit, and put in a temporary one strong enough to hold a mau-cage at the forward end, took in a couple of weeks' fall and a sword fishing outfit and pilot, and one bright fall morning bade the old town good-bye, and stood away over the shoals for No-Man's Land.

We had a good top-sail breeze from the southward until evening, when it died away, leaving a nasty sea on, in which we pounded and "kicked" all night with hardly enough wind to keep our sheets out of the water. Towards morning the breeze freshened, and before noon our pilot pronounced us on the grounds and went on lookout. While the watch below were taking a bite we heard our Nantucketer sing out to his helmsman, "Let her off a couple of pints—so—stiddy;" and, *sotto voce*, "Thar's so'thin' off thar I can't 'zactly make out." John's coffee and sandwiches were forgotten, much to our ebony cook's disgust, and we were on deck before our course was fairly changed; but it was some time before we could distinguish the speck, rising and falling with the sea, which had attracted the old whaleman's attention. Soon he pronounced it a "fish," and after putting us on the other tack to run down partly to leeward of it, went below to bring up the irons. When we had worked perhaps a mile before it, we lay to for our final instructions, the skipper took the wheel to "keep her head on if yer can," and the one who held the air tight barrel was told "when y're sure I've struck him, over with it."

He was as cool as a cucumber as he took the harpoon and cutting spade forward, coiling the line (one end of which was fast to the harpoon, the other to the barrel) carefully on deck, with the caution, "Ware when it flakes out," and taking only enough with him to his roost on the bowsprit end to give him ample elbow room. His station reached, he fixed the spade in the support ready to receive it, laid the iron in front of him across the cage, waved his hand, and we filled away, close hauled. Never was a mile more slowly sailed by the little group in the pit of the White Cloud. Never had our hearts beaten faster than as we neared the fifteen feet fish, rolling, asleep, in the trough of the sea. Now the pilot is almost over him; slowly he raises the iron, braces himself, and hurls it with all the strength of both sinewy arms. The iron sinks deeply into the sleeping fish; there is a mighty surge, the line flakes overboard as quickly as thought, the float spashes as it disappears beneath the water, then all is still. We luff and wait. Presently up bobs the float. The fish finding the strain of the air-tight barrel too severe is coming to the surface. Now the water bubbles and boils just under our lee, and the sword fish breaches half his length out of his element, shakes himself savagely, and swims at lightning speed for the barrel. He strikes it again and again with his sword, but it rests so lightly on top of the water that he cannot injure it. Then he stops, looks at us an instant, and darts toward the boat. We have not time to bring her head around, and if he strikes it will be amidships. The pilot comes quickly aft, bringing his long-handled, three-cornered spade, and as the fish comes within striking distance, aims one swift, unerring blow full at his forehead. The terrible sword drops harmless, the upper muscles at its base are severed, and he passes under us, jarring the boat and splashing us with water as he sounds.

Again the float goes under and is out of sight a longer time than before. Again the fish throws himself out of water, showing his sword hanging down at an angle of forty-five degrees. He swims once or twice around the barrel, then starts to windward at too furious a speed to last with the float plowing behind him. When we beat up he is feebly fighting it. He sounds for a short time, but comes up exhausted. Once or twice he rolls over on his side, but recovers himself and swims on in short tacks. We press him too closely, and he charges us again, but we make no effort to avoid him, knowing that now he is powerless to injure us, nor does he try to strike, apparently realizing that his weapon is useless, but goes under, coming up the other side.

And so he sounds and swims, fights and runs, until at last he succumbs to exhaustion and lies still. We work up alongside, and as we luff, the pilot puts a lance into his very life. There is a shudder along his whole body, his fins work convulsively a moment, and then he lies motionless and dead. We rig a tackle to our mainmast, and after considerable labor get him aboard, where we can examine at our leisure his peculiar shape, and admire his graceful "colliper build." Our Nantucketer estimates his weight at between five and six hundred pounds. His sword is over three feet in length, its broken point and nicked edges proving that its owner was an old as well as a fighting fish.

Our fish is on board, and after reserving a few choice cuts, turned over to our pilot, who asks that we run in to Martha's Vineyard that he may dispose of him before he spoils. And so we set gaff and jib top-sails, haul off before the wind, and lay our course northward. At sunset the wind died away again, and we lay becalmed for several hours. After a well-earned supper of fried swordfish, which, by the way, is a course, but not unpalatable dish, we stretched ourselves on deck and watched the purple tints fading away in the west. The gray crept over the east, the clouds above us lost their under fringe of crimson, and the stars—those sentinels of the night—came slowly on watch, and then those other sentinels, the light-houses and light-ships, flashed their warning rays over the quiet sea.

Our pilot, resting his broad back against the mast, tells us

through clouds of tobacco smoke, of his adventures by sea and land. How a sword was found, a third larger than ours, while repairing a New Bedford whaler, piercing the vessel's side, and wedged so tightly into a cask of oil that none had leaked away. How his brother's boat was struck by a fish on the same grounds we were on, staving her quarter, and sinking her from under the three men, who pulled ashore in a dory; how he had once been pierced, but had saved his boat by drawing canvas over the leak. And then, as he cuts another filling from a plug of "navy," rubbing it to pieces between his horny hands, and settles himself more comfortably against the mast, he tells of the weeks that strew his island every year, and almost every gale, of the ship *Newton*, with a crew of over twenty men, that grounded on "Tom Nevero Head," on Christmas night of '66, going to pieces and drowning all but one poor fellow, who got ashore and crawled a mile through bitter cold and blinding snow, only to die within a few rods of shelter; how the surf was filed and the beach strewn for miles and miles with *debris* from the wreck, with here and there a ghastly dead thing rolling in the undertow; how all the recovered dead are quietly sleeping side by side in the green burying ground at N. He tells how a schooner came ashore with all sails set, not a soul on board, not a drop of water in her hold; a cat purring contentedly before a bright coal fire, and the log written up to twelve o'clock the night before. "Took to their boats and were swamped," he said. Then, knocking the ashes from his pipe, went below and turned in.

The others soon followed his example, and the watch on deck was alone. The sails hung motionless from stays and gaff, or else flapped lazily as a wandering puff partly filled them. The moon came up, and sent a great silver wake across the sea, brightening the crests of the gentle swells rolling in from the southward, leaving their troughs in shadow, throwing so ghostly a light on the sails of a distant vessel that the watch involuntarily started as he saw them through the gloom. A faint streak of light to the northward marked the passage of a steamer, and farther west the bold light of Gay Head flashed out. The night wore on, and before the watch was changed a cat's paw came out of the west followed presently by a gentle breeze.

When morning dawned the sandy cliffs of the vineyard lay dead ahead, and in a short time we were moored alongside the wharf at the camp grounds, where the pilot soon disposed of his fish, realizing quite a little sum from its sale. We wandered through the rows of cottages and big and little tents, heard part of an open-air sermon, then went on board and were soon under way. A vote was taken on the question of more sword fishing, and was almost unanimously negative, so it was decided to run into Nantucket, refit our bowsprit, retain the pilot and take a turn at the shark and bluefish that abound among the neighboring shoals.

Half an hour out we caught sight of a low lying yellow line, which gradually arose from the waves until the island was in view, a white lighthouse glistening in the sun on its northern point. Nantucket lies in a semicircular form, or rather like two sides of a parallelogram, the ends connected by a parabolic curve, and the apex rounded. The longer side of this parallelogram points westward. At its end lie two small islands, Tockemuck and Maddequet. The shorter side runs northerly, on the end of which, as I have stated, stands Great Point Light. The town of Nantucket lies near the centre of the curve, and northeast from it, separated only by a narrow point (Coatue) from the outer harbor, lies the inner one. This, at its farther end, almost cuts through to the ocean beyond. Indeed, so narrow is the beach between that in the days of the island's prosperity a ship canal was projected and came very near being excavated here. Entrance to the harbor is made between Brant and Coatue Points, on the former of which stands a harbor light with other smaller "bearing lights" near by.

Across the island from the town, eight miles away, and near the imaginary apex, lies the little fishing village of Sinsonscôt, perched upon a sandy cliff, while to the northward, a mile or more, stands Bankoty Head lighthouse, one of the finest on the coast, whose light has been seen nearly thirty miles at sea. Southeast from this, thirty miles away, and marking the outermost edge of the dangerous South Shoal, lies a light-ship. Mountonous as is the life on a light-ship it is not a hard one, and there are plenty of broken down seamen on this island of sailors who gladly ship. The crews are on board from three to six months, and an equal length of time on shore. Their only duties are to keep their ship and lights in trim, and to staid regular watches night and day. They assume themselves in the meantime by making baskets and "gaw-gaws," which they take ashore and sell, and by fishing. Occasionally they are hailed by a passing vessel, and sometimes receive godsend in the shape of newspapers from the same source. At intervals a gale or wreck furnish variety, but the life is one of such terrible monotony that but few young men can be induced to go out a second time, in consequence of which the captain and his crew are generally old gray-headed water-dogs.

Some years ago the captain of one of these ships came ashore for supplies, leaving his mate in charge, and his wife and children on board. During his absence a gale "came on to blow" (in island vernacular), preventing his return. It soon increased to almost a hurricane; the vessel's iron cables wore through her hawser holes and forced the crew to quit. They set a mainsail on the crazy old craft and tried to work her into port, but the rotten canvas blew out of the bolt rope and left her at the mercy of the gale. The crew managed to keep her before the wind, and she scudded by Great Point in full view of the agonized captain and drifted out to sea. Ten days after she was sighted off Cape Hatteras. Her crew were taken off, and the ship sank before the rescuing vessel was out of sight.

As we came in over the bar, which stretched to the right and left for miles, our pilot told us of the gallant rescue of the crew of an ice-bound schooner by a few Nantucketers. The vessel lay just inside the bar surrounded by loose ice, the crew out of fuel, and the schooner leaking badly, her decks and rigging a mass of ice. The rescuers, taking their lives in their hands, started in dories, taking planks to aid them in crossing the tender ice. They were several hours in getting out to her, but finally succeeded in getting every one safely ashore. All were given medals by the Humane Society in reward for their bravery.

Nantucket—with its rambling, grassy streets and quaint old buildings, each surmounted by a platform, on which the town-people used to gather in the old prosperous times to see the ships come in from their whaling voyages with oily cargoes and bronzed crews; with its crumbling warehouses and rotting wharves—blinks lazily at the visitor, as if, Van Winkle like, it were just awakening from a sleep of many years.

One cannot follow the windings of the almost deserted streets and realize that only forty years ago they were blocked with loads of oil and whalebone and ships' stores; that the



## Woodland, Farm and Garden.

## THE NEW YORK HORTICULTURAL SOCIETY.

The autumn exhibition of the above flourishing society was held at Gilmore's Garden last week, and must have delighted the hearts of the managers by its completeness and great success. Though this society has been resuscitated only two years, this is the fifth exhibition that has been given by it, each one being incomparably superior to its predecessor. Indeed we heard one gentleman remark that this exhibition far surpassed one that he attended in Paris only five weeks ago. The plants shown, whether large or small, were models of grace and elegance, the fruits were the largest and best we have seen for years, and, though not including so many varieties as were shown at the Pomological Convention at Baltimore, was far superior in the size and quality of the specimens exhibited; while, thanks to the amateurs and private gardeners around New York, the display of vegetables in quantity as well as size was simply wonderful. This, taken in conjunction with the beautiful garden, the cascade and the fountains, the delightful music, the sweet perfume from the many cut flowers, and the beautiful designs, made the garden appear, especially when lighted up in the evening, a veritable fairyland.

It is impracticable to give a full list, either of those who took the many and liberal premiums offered (amounting to over \$1,500) or of the names of the many fine plants exhibited by them. Mention may be made, however, of the principal in the various classes, and this season again Mr. J. Taplin, the efficient manager of Geo. Such's greenhouses at South Amboy led the way with some wonderful specimens of horticultural skill. The most striking and novel plant in his exhibit was a noble plant of *Nepenthes Dominiana*, a hybrid variety of the East Indian pitcher plant, *Purpureum tenax*, *Veitchii*, the New Zealand Flax, *Ananassa Portiana*, the variegated Pine Apple in fruit, a number of finely grown *Dracaenas* and Ferns; notably among the latter six immense plants of *Gleichenias* in its many species, rarely grown New Zealand Ferns, and large plants of *Pteris scaberula* and *Hypolepis distans*, five feet in diameter; *Marantias*, *Mackoyana Warscewiczii*, *Veitchii*, and many others; 12 species of *Crotons*, all specimen plants; 6 species of *Alocasias*, 12 species of Palms, 10 species of *Solagnellias*, etc. Mr. Taplin also exhibited an exceedingly fine seedling *Nepenthes* raised by him, which bids fair to take its place as one of the best in its class. Louis Menaud & Son, of Albany, showed a very choice and well-grown group of variegated leaved plants, some beautiful *Oreohids*, and an exceedingly interesting collection of *Agaves*, *Cacti*, *Mammillarias* and other succulents. Mr. William Bennett, Flatbush, L. I., showed as usual a very neatly staged and interesting group, evidently selected with reference to their commercial usefulness. Each plant was a model of its kind, and the collection, comprising over one hundred and eighty species and varieties, many of them new and rare, deservedly took the first premium for the "Collection of Store and Greenhouse plants." He also exhibited ten splendid Palms, and a very fine plant of *Agave pilifera*. Mr. John Bush, Tremont Botanic Gardens, received a special award for a very choice and well arranged group of plants, including a number of well-grown *Dracaenas*, *Crotons*, *Dieffenbachias*, *Alocasias*, *Marantias*, Ferns, etc., as well as many new plants; notably a fine specimen of *Abutilon Darwinii tessellatum*, which was certificated by the judges. Mr. Isaac Buchanan, Astoria, L. I., was also awarded a special premium for a large and well arranged group of Palms, Cycads and other tropical plants, including a noble plant of *Musa Ensete*, the *Alysicarpus* Banana, and a plant of *Philodendron* or *Monstera deltoidea*, fruit of which he exhibited in the fruit department. Mr. J. M. Paterson, Newark, N. J., also received a special award for a very large and finely grown *Pandanus nitidus*, a large plant of *Olea fragrans*, a number of Palms, and a fine plant 15 feet high of *Stenocarpus Cunninghamii* in flower. Mr. James Riddle, Inwood, N. Y., took the premium for a very neatly designed and arranged flower garden (15 ft. by 5 ft.) of living plants, and a special award for a lovely group of Ferns. Premiums were also awarded to Keller and Dean, Bay Ridge, L. I., for a neatly arranged group of plants, suitable for market purposes; to John Henderson, Flushing, L. I., for a collection of *Coleus* and group of *Smilax*; to Charles Zeller, Flatbush, L. I., for a collection of tropical plants; to Peter Henderson, Jersey City, N. J., for a collection of *Coleus* well grown; to Lanrenz & Weigand, Astoria, L. I., for a collection of Ferns; to W. C. Wilson, Astoria, L. I., for Ferns and a group of tropical plants, etc. The special premium in this class, offered by C. Zeller, Flatbush, for the best collection of Monthly Carnations grown in pots, was awarded to Wm. Ball, Spuyten Duyvel, who also received premiums for Hanging Baskets of plants, and a miscellaneous collection of plants; the special premiums offered by Louis A. Lienau, 105 Front street, New York, for the best and most correct labeling of plants and flowers, were taken by Louis Menaud & Son and Geo. Such, in the order named. The premiums offered for the best collection of ornamental Evergreens brought out a fine lot of specimen evergreens, and was closely contested; they were awarded to S. B. Parsons & Sons, Flushing, and R. B. Parsons & Co., in the order named.

In the section devoted to Cut Flowers the display was

good for the season, especially as the late drought has nearly stopped all growth out of doors. The principal premiums were awarded as follows: To Dr. Hexamer, Newcastle, N. Y., for the best collection of named varieties of *Gladioli*; to James Vick, Rochester, for *Gladioli*, *Dahlias*, and the best seedling *Gladiolus*; to Peter Henderson for the best display of Cut Flowers and *Verbenas*; to W. A. Burgess, Glencove, L. I., for *Roses*; to the C. L. Allen Co., Queens, L. I., for *Coxscombs*, Cut Flowers and *Dahlias*; to R. B. Parsons & Co., Flushing, L. I., for *Roses*; to H. D. Carmohn, Staten Island, for magnificent *Niphetos* *Roses*; and to N. L. Britton, New Dorp, S. I., for a collection of native plants correctly named.

Notwithstanding the scarcity of flowers, the display of designs in Cut Flowers was large and extremely creditable to the florists, who were the principal exhibitors. The premiums were awarded in the order named below: For Table Designs, to Isaac Buchanan; for Hand Bouquets, to Ekereh and Wilson, 1203 Broadway; for Basket of Flowers, to Mrs. W. J. Davidson, Brooklyn, N. Y., and Hanft Bros., 795 Broadway; for Funeral Design, to W. C. Wilson, 14th St., N. Y., and to C. L. Allen Co.; for Bouquet of Native Grasses, to N. Hallock, Creedmoor; for Design of Pressed Ferns and Autumn Leaves, to Mrs. W. J. Davidson and Mrs. Wm. Charlton, West New Brighton, S. I. A certificate of merit was also awarded to Hanft Bros. for a unique and beautiful Funeral Design (an Artist's Easel) sent in the second day of the exhibition.

The display of fruits was unsurpassed, John Finn, Morrisania, taking first honors for the collection of six varieties of hothouse grapes; Thomas Dumeau, Astoria, for Black Barbarossa and White Muscat. J. H. Ricketts, Newburg, showed a fine collection of Native Grapes, and received a certificate of merit for the best new Seedling Grape. A special premium was also awarded him for a fine collection of pears, which, by some delay, was received too late for competition. Ellwanger & Barry, Rochester, N. Y., and C. J. Copley, Staten Island, also showed good grapes, and took premiums in many classes, while the collection of Pears exhibited by Ellwanger & Barry was simply magnificent. Their collection filled a large table, and it can be safely affirmed that every fruit exhibited was a specimen of its kind. W. S. Carpenter, Rye, N. Y., also exhibited some splendid pears, notably some fine *Duchess d'Angouleme* and *Beurre d'Anjou*, the largest of the latter variety weighing eighteen ounces. Some very fine *Duchess* were also shown by Wm. Smith, Hunter's Point, and Major Jacob Boomer, Flushing, whose eight fruit were grown on the one tree, and weighed eight pounds. Messrs. E. & J. C. Williams, Mont Clair, N. J., showed a fine collection of twelve sorts, and fine examples of *Beurre Bose*, and 'Vicar of Wakefield', came from Thomas Dumeau; of *Bartlett* and *Sheldon*, from Wm. Reed, N. Y.; of *Dana's Hovey*, and *Urbaniste*, from A. G. Baldwin, Newark, N. J.; of *Belle Lucrative* from Geo. Tate, Inwood, and of *Louise Bonne* from Ang. Dejonge, Staten Island. A fine collection of Plums was also shown by Ellwanger and Barry, and a dish of very fine Peaches named *Reed's Choice*, by W. Walsh, N. Y. The special premium of \$50, offered by John Henderson, the president of the society, for the best collection of foreign and domestic fruits, was awarded to W. C. Smith, 189 Broadway, for a very large and complete collection, their pears, apples, grapes and oranges, being exceedingly fine. W. S. Carpenter, Rye, N. Y., took almost all the premiums in apples, his collection of forty varieties being very choice and large in size.

In Vegetables the collections exhibited were very fine, every sort represented being carefully selected, both as to size and quality. The award went to Robert Chesney, Inwood, and Arthur Ball, Spuyten Duyvel in the order named for the best collection. For the best collection of potatoes, the prizes were taken by F. M. Hexamer, Newcastle, and B. K. Bliss & Sons, 34 Barclay st., N. Y., with very fine collections, large and clean, some of the varieties wonderfully fine. B. K. Bliss & Co. also took two premiums for the best seedling potatoes, with two very promising sorts, marked A No. 103, and A. No. 6. The awards for the collection of tomatoes were secured by Peter Henderson and Louis Compton, and that for the best single dish by A. Baudais, Washington Market. There was a spirited competition for the various other varieties of vegetables, and the many fine specimens were examined by large numbers with increased interest. The Society was fortunate in securing the services of judges thoroughly conversant with the requirements in their several departments. Their labors were arduous, and we have reason to believe their decisions gave universal satisfaction. Messrs. W. R. Smith, Washington; E. S. Rand, Boston, and John May, Madison, were the committee on Plants. Messrs. Geo. Thimber, Isaac Buchanan and William Saunders, Washington, on Fruits, Messrs. C. C. Olney, L. A. Lienau and Dr. Barston on floral designs, and Messrs. Jos. Edwards, Thos. Tait and Thos. Dumeau on Cut Flowers. In conclusion, we cannot do better than advise our readers to help the society along as much as is in their power. The membership is only \$5 per annum, or \$50 for life membership. The objects of the society are to collect and diffuse correct information on all subjects relating to Horticulture, and to promote a taste for the same. Any information will be gladly furnished by the secretary, W. J. Davidson, 258 Filton st., Brooklyn, N. Y.

QUEEN'S CO. AGRICULTURAL SOCIETY.—The thirty-sixth annual fair of this society takes place this week at Mincola, and there is every promise that it will be one of the most successful which has been held by the

society. Important improvements have been made on the grounds since last year, not the least of which is the erection of a large building on the lawn to the eastward of the main exhibition building, intended for the show of Agricultural implements, etc. The list of premiums is large and varied, and includes a large number offered by private individuals for special excellence. We trust our friends will have good weather, a good exhibition and an overflowing attendance.

## MEETING OF THE AMERICAN POMOLOGICAL SOCIETY.

THE sixteenth biennial exhibition of the fruits of America, by the Pomological Society, which represents the United States and Canada, was held in conjunction with the regular annual exhibition of fruits, flower and plants by the Maryland Horticultural Society, at Baltimore, in September, and was certainly the most elaborate and interesting display of the kind that has ever been held on this continent, and perhaps vies with the great exhibitions of a similar character that have been held heretofore in Europe. Some of the delegates from a distance, who had visited all the great horticultural and pomological exhibitions that have been held in this country within the past twenty years, said that this one surpassed them all. The display of fruit was very fine, and from all sections of the country; while the plants and flowers were simply gorgeous. The Pomological Society held a two days' session, and in the absence of the President, Marshal P. Wilder, C. M. Hovey, of Boston, one of the vice-presidents, was called to the chair. Credentials were presented from a large number of horticultural societies, both from the United States and Canada, and a most interesting and instructive report on the rise and progress of fruit growing in this country, the immense crops now produced, mentioning that the estimate by the Government for the Centennial last year furnished the following statistics (soon to be published) of the fruit culture of our country, viz.: the number of acres under cultivation in orchards, vines, and small fruits is estimated at 4,500,000. The number of trees is estimated as follows: Apples, 112,000,000; pears, 28,500,000; peaches, 112,270,000; grapes, 141,350,000. The estimated value of fruit products is: Apples, \$50,400,000; pears, \$14,130,000; peaches, \$56,135,000; grapes, \$2,118,000; strawberries, \$5,000,000, and other fruits \$10,432,800, giving a grand total of \$138,216,700, or nearly equal to one half the value of our average wheat crop. California, to say nothing of figs, oranges, almonds and olives, has nearly one-third of the whole grape area, sixty thousand acres of vineyard, and forty-three million of vines, yielding annually, besides raisins and grapes for the market, ten millions of gallons of wine; to which may be added the wines of Missouri, Ohio and other States; the whole wine product being 15,000,000 gallons as the annual crop. The statistics of the apple, peach and strawberry crop is equally surprising, more especially what is sent to foreign market, which Mr. Wilder says is now as well established as that for our wheat, and as the refrigerating progress becomes more and more perfect, it will add largely the exportation of peaches, pears and other delicate fruits. The report concluding, says:

Standing here as conservators of American Pomology, enjoying as we do such peculiar privileges for research and discovery, let us use every effort to advance our cause by diligent experiment and observation, so that as we come up from session to session we may add something to the common stock of information, and thus develop for the good of mankind, the rich treasures which our science has in store for the world. Thus let us work on, hand in hand, to scatter these blessings broadcast through the land. Others may seek for the honors of public life or the victories of war, which too often carry with them the recollection of wounded hearts and painful disappointments. But let us continue to work on, feeling assured that our labors will cause no regret. Let us commence the new century in the history of our Republic with increased enterprise and zeal for the promotion of our cause, and should any of us be called from our labors on earth let us feel assured that others will continue the work we have begun, and continue it to still greater perfection. Let us work on, full of hope, regardless of obstacles, "still achieving, still pursuing," until we reach the better land, where the garden shall have no blight, fruits no decay, and where no serpent lurks beneath the bower, where harvests are not ripened by the succession of seasons, where the joys of fruition shall not be measured by the lapse of time.

HYACINTHS IN MISSISSIPPI.—The receipt of an autumn catalogue reminds me that I must order a few hyacinths and fulfill a promise made to the readers of FOREST AND STREAM, to tell them what I know about roses and hyacinths. In the autumn of 1870 and 1871, respectively, I bought each time one dozen un-named hyacinths at \$1.50 per dozen, losing three bulbs each time through ignorance and unsuitable soil. The original eighteen bulbs have increased to hundreds. They have improved from year to year. The past spring I had at least one spike of flowers that came up to, if it did not surpass, the pictures in the catalogues, and a dozen that more or less approached the standard. I speak of single varieties exclusively. I must add here that I have no more of the white and the shaded hyacinths than when I started six years ago; those I have are nearly all deep blue and deep red. I had no yellow, hence I must order a few white, tinted and yellow to get a variety of colors. I cultivate as stated before; my soil is a strong, heavy clay. I shifted my hyacinth bed every year, not because I had a purpose, but forced by the surroundings; have now come to the conclusion to change every season if practicable, because the result seems good. I select my spot with a view to perfect drainage, full exposure to the sun, and sheltered if possible against north and east winds.

The top soil is thrown to one side; the clay below that wheeled away to a low spot in my garden, spading out at least eighteen inches, then filling in to its former level with equal portions of sand and cow manure (the manure I used was never more than six months old—did not have any other), mixing the top soil, sand and manure well by spading. I plant any time I can get the bed ready, from first of November into January, always selecting a time when the ground is, comparatively speaking, dry. I never plant immediately after a rain; always before a rain. Neither do I wait, taking the bulbs for a guide, to plant, as a catalogue before me says, "Whenever the bulbs begin to throw out roots," but I look at the tops whenever they push the least. I plant as soon after as possible in the border in a perfectly straight line, it being easier prepared for the bulbs, and they are easier taken up without sticking a prong of the spading fork through your finest bulb, as I have done frequently when they were out of the line; bulbs eight to ten inches apart, and top of bulbs four inches below the surface. If cultivated in beds, should prefer straight rows about twelve inches apart, and beds never wider than one could reach for the purpose of weeding or cutting the flowers without stepping on the beds. Before and after flowering I cultivate the bulbs by keeping the soil loose and free from weeds, taking care, while doing so, not to break off a single leaf. Much less do I, after flowering, cut the leaves off to two or three inches of the ground because they do not look well; I would as soon dig them up and throw them away. When most of the tops have died down, I dig them up in dry weather, handling the bulbs with green tops very carefully, laying them on boards in the shade to dry for several days, removing with my hands, previous to storing them away, any top, root or soil adhering to the bulbs. Kind readers will please remember that I am writing for folks that cannot afford to keep a private gardener, who, of course, knows all about it; I am writing for those who cultivate flowers for the love of it, and not because it is *à la mode* de ding-dong to have them on one's grounds. Please remember I am living in latitude of about 32 deg., 15 min., where the Cape Jessamine grows out of doors; where the rose is an evergreen almost; where the Sweet Olive (*Olea fragrans*) lives without protection, blooming now (Sept. 12) until heavy frost, and again in the spring, sending out from its insignificant flowers a perfume so exquisite that while you are passing you find yourself stopping to take deep inspirations of the perfumed air. I am reminded of street-car rides, years ago, in New Orleans on Esplanade street, taken for the sole purpose of inhaling the air heavily laden with the odor of orange flowers; flowers and the golden fruit on the tree at the same time.

Jackson, Miss., Sept. 12, 1877.

GEO. C. EYING.

## Natural History.

### FOUR MONTHS IN THE FOREST.

IN the year 1860 I fully made up my mind to go out West, and live a naturalist's life for four or five months, and collect some new specimens for my cabinet. On the first of April, in the above year, I started with my beautiful dog Pike, and my well packed valise and gun and implements for skinning birds and animals. When I started, I knew not where I would locate, as it was the first time in my life that I ever left home to go on such an expedition. After traveling for nearly two weeks, and riding in the cars for several hundred miles, I at last found a place in the deep forest that I thought would be suitable. At the end of my journey, feeling somewhat fatigued by my long and weary ride, I began to wish myself home in the good old city of Brotherly Love, but as I had fully made up my mind to devote four or five months to collecting something new for my cabinet, I was willing for a time to deprive myself of the many delicacies and happy days that I had spent at home. My house in the forest was not wrought by human hands, but was constructed by the great Builder of the universe. It was nothing more or less than a hollow tree. This tree I occupied for four pleasant months; it is the species known by botanists as the *Platanus occidentalis* in more common term button-wood of America. This tree, as you have doubtless found by your reading, sometimes grows to an immense size, and frequently, when of great age, it becomes hollow. The hunter of the West often finds his lodging in its capacious trunk, and often emigrants take up their abode in them for weeks at a time. The one that I occupied was ten feet in diameter, and twenty-two feet in circumference. I said that my house was not built by human hands. This is strictly true of the external walls. It stood almost in the heart of a deep and ancient forest, occupying the highest point of land for miles around. The foundations were deeply laid in the heart of earth, being protected and secured by immense ledges of rocks, which extended a great distance. There was a massive grape-vine that had trained itself over two short horizontal boughs, as if on purpose to form a portico over the doorway to my humble place of resort. I constructed a sofa by raising some earth and limbs to a suitable height at the side of my fabric, and covering it with beautiful lichens and moss of different colors arranged in figures to suit my taste. There was a path of light sweeping through the green boughs of the coloumade as if the angels of peace and love had opened it for their daily and nightly visits, by the soft sweep of their majestic wings. My room was lighted by a single window; the pane of that was composed of a beautiful plate of mica—you may know it by its sparkling lustre, like small thin fragments of glass. In that little cozy apartment I had everything that ensured my comfort for my four months' stay. Nearly every day I rambled through the forest with my faithful companion, collecting specimens of different plumage, quite different from any I had ever before met with, and a few animals such as, foxes, wildcats, porcupines, and a variety of snakes and squirrels. Among my choice collection was a fine bald eagle (*Haliaeetus leucocephalus*). This bird alone, I think, repays me for my Western trip. He measures

from the point of his beak to the end of tail 37 inches, and from tip to tip of wings 82 inches. He is the finest specimen I ever saw before or since I shot this one. How often, night after night, as I lay in that hollow tree, and as I listened to the yelping of the foxes and the cries of the wildcat and the hooting of different owls, and many other hideous noises that echoed through the forest, I had wished myself at home; but as soon as rosy morn opened her smiling eye, and the wild birds began to warble their morning songs of love, they filled me with joy, and it quite refreshed me after my long night's broken sleep. I returned home on the second of August, with my dog and choice collection of birds and animals, and can truly say my trip in the far West was a pleasant one. And now as I sit and think of the many joyous hours and weeks that I passed in the wild forest of the West, it makes me almost wish that I were there again, and living in that cozy room in the hollow tree.

GEO. BOWDWIN, Station E., Phila.

A CURIOUS INCIDENT.—In ROD AND GUN of May 13, 1876, I said, in a letter dated from this place, that I thought quail did at times withhold their scent, but that it was not a voluntary action of the bird, but a natural consequence of a former action—that of pressing its feathers very closely to the body when frightened and lying concealed. I am now convinced that it is so. Last Friday I went out quail shooting (*C. communis*, partridge) with two friends. We had two very good dogs with us, Harras and Max, English pointers, the one my own and the other belonging to one of my friends. At one time Harras came to a sudden point. I walked up to him and flushed two birds, one of which I dropped. The other one took an opposite direction, and I was not quick enough to turn round and make use of the second barrel. However, I was careful, and marked it down on a stubble field. I called my friends and we all five (including the dogs) followed. We searched for that bird a long time, but could not find it. Then a laborer, who was at work a short distance off, came to us and said the bird must be just where we were; he had also seen it alight. We looked and looked, and could not see it. Finally the laborer called out: "Why, gentlemen, here it is." It sat under our very feet in a furrow. One of my friends proposed to try to catch it in his hat, but I protested and insisted that the dogs should be put to work on it first. Now comes the interesting part of my story. We called the dogs in. I took Harras to heel, and Max was told to find bird. Both dogs, as I said before, are superior animals, and there is not the slightest doubt about quality of nose. I have seen both make remarkable points. Well, Max stepped over the bird several times and did not get any scent. We then took Max to heel and let Harras go. The same thing over again. At one time when the dog stepped over the bird, he actually brushed the bird's tail with his hind foot, and still the bird did not move; and four men stood and talked and laughed within three yards of it. The position of the bird was as follows: It sat in a furrow without any cover; head end down, tail up; the head was thrown back into the feathers of the neck, so that the eyes were all I could see of the head. The feathers of the whole body were closely drawn in, so that the surface seemed quite smooth, and every time a dog came very near it I noticed a convulsive drawing-in motion over the surface, which I can best compare with the slow closing of some bivalve. When the dog had passed the whole bird seemed to grow a little larger again. It was certainly the most interesting observation I have ever made with dog and gun. When I was fully convinced and satisfied I told my friends to get ready, and then let go both dogs again. I called them to and fro until they accidentally flushed the bird, without either, however, having shown any signs of getting scent.

C. F. W. B.

Wetsbaden, Germany, Sept. 10, 1877.

CARNIVOROUS WOODPECKERS.—A correspondent of the *American Naturalist* speaks as follows of a novel habit of one of our commonest woodpeckers: "During that summer a friend raised a large number of black Cayuga ducks. It was noticed that while the birds were still very young many of them disappeared, one after the other, and the bodies of several were found with the brains picked out. On watching carefully to ascertain the cause, a red-headed woodpecker was caught in the act. He killed the tender duckling with a single blow on the head, and then pecked out and ate the brains. Though my friend was an enthusiast in protecting the birds and squirrels that came about his premises, this provocation was too much." The woodpeckers were speedily shot.

SHOWERS OF TOADS.—Notwithstanding the fact that the so-called showers of toads have been accounted for by naturalists showing that the long needed rain has called myriads of young toads from their hiding-places, and the grounds where none were seen a few hours before suddenly become alive with the little creatures who come forth to enjoy the moisture, there are still many who firmly believe in their pluvial origin. There is a fact in this connection that does not appear to be generally known, even to those who are well posted in such matters, which is, that the young toad has two modes of development, the best known one is that of passing through the tadpole state when the eggs are laid in water, in a manner similar to that of the frog, but the other is the wonderful property that is possessed by the egg of a toad enabling it to skip the tadpole form and hatch a perfect toad if laid in moist earth instead of water. It is not improbable that a warm rain may be required to develop the embryo, or at least release it from the egg, if so, a "shower of toads" is the result.

FRED. MATHER.

A CURIOSITY.—Dr. Furber has shown us an anomaly; it consists of a second perfectly formed hen's egg inclosed in the first.

SHARKS.—I have seen articles in the FOREST AND STREAM denying that sharks will attack a man. When on a voyage of two years in the American ship Webfoot, I saw sharks in the harbor of Batavia jump clear out of the water at sharks painting the sides of the ship on stages. At Colombo in Ceylon it is a weekly occurrence for the green sharks to go right into the harbor in five feet of water, and take away the Indians discharging lighters. In 1866, at the port of Aden (Arabia) white men could not bathe, except by dropping a sail overboard to do so in, because of the number and voracity of sharks.

R. D. V.

HABITS OF DEER.—An article in FOREST AND STREAM of Aug. 23, touching the habits of deer, is both interesting and instructive; but is not altogether correct, therefore I crave a space in your columns to show wherein I think it is in error. I have hunted deer (*Cervus virginianus*) for many years, have had several fawns in my possession, have watched their movements. "Sycamore" is out when he says "deer rarely weigh over two hundred pounds." I killed a buck once that weighed two hundred and twenty-seven pounds, and I have often killed them that went over two hundred, but I think one hundred and fifty pounds would be a fair average. Does, naturally being the smaller animals, will not average over one hundred pounds. I do not believe that the points of the horns indicate age, from the fact that often they do not have the same number of points on each beam, and are often two years old before they have "spikes," at least I have killed them in the fall, when they were yet in their red coats, and their heads were as smooth as a doe's. Now if they had not been over a year old they would have had white spots on them. "Sycamore" seems to think that the deer deposit their horns in some secret place, but it is not the case, it is a very common occurrence to find deer horns in the open woods, and sometimes, though seldom, both horns are dropped at the same time. I have never saw a deer that had shed his horns before February, and I do not think they ever do. The horns of the buck make their appearance about the time does bring forth their young, &c., in the latter part of May and the first of June. The food of the deer might be said to consist of almost everything, for they will eat anything that any other ruminant will. I might make one exception—they are not fond of grass nor will they eat it so long as they can get any thing else. I do not think that the "spike" buck ever engages in a contest with an old buck, or any other, at least I never saw one that showed any signs that would justify the conclusion. I have sometimes found the dead bodies of both of the contending deer lying but a few yards apart, and I have killed bucks that that were badly used up, but in every case the marks upon the body showed that it was the work of an old buck, or one with branching horns.

That the deer have their regular crossings when chasing each other is true, but generally they have several runways, and may be here to-day and there to-morrow. I have tried watching their crossings, and I find it rather a precarious way of getting game, and entirely devoid of sport. I have hunted deer in every way possible, and I find more real sport and pleasure in still hunting than in any other. Yes! give me the still hunt, where it takes nerve and skill to bring down the keen scented and wary game. All that wish may follow the laying horns or sit idly in the shade of some tree, waiting for them to bring out the deer; but none for me. I am not well posted in the "lick" business, but I know that breaking down limbs or scattering powder about the lick will not spoil it. I have tried such physic for that purpose in order to curtail Cully's chance of killing deer in their breeding season, but it was a failure. "Sycamore's" theory about the deer slapping its tail down, would lead the novice to think he had not struck the deer, unless he sees it give its tail a pretty hard jerk downward and dance off at railroad time. That tail business will not do. I have seen deer slap their tails down and get off in double quick time when there was not a hair touched. They will invariably do so if the shot pass close to their heads, sometimes they will go off apparently unhurt, when they have received a death shot. I have often shot them through the heart with a large rifle-ball when they would center off with their tails up as though they were not hurt.

South Bend, Ark.

ANTLER.

[We corroborate "Antler" regarding the dropping of horns. The reason more are not found is that they are made way with by the small rodents.—Ed.]

DROWNED BY AN OCTOPUS.—A story comes from Victoria, Vancouver Island, of an Indian woman who while bathing was seized by an octopus, or devil fish, and drowned. The body was discovered by Indians next day lying at the bottom of the bay in the grasp of the octopus. They cut the tentacles and recovered the body.

—Elephants are employed in the timber yards of Burmah to handle the heavy logs of teak wood, the Burmese not having machinery for the purpose. The sagacious animals use their vast strength with remarkable skill.

ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDENS FOR WEEK ENDING TUESDAY, Sept. 25, 1877.—One great horned owl (*Bubo virginianus*), presented; two brown lizards (*E. fasciatus*), presented; one chicken snake (*C. quadricinctus*), presented; one coon snake (*C. gularis*), presented; one green snake (*Cyclophis vernatus*), presented; two banded rattlesnakes (*C. arizonae*), presented; one common crow (*Corvus americanus*), presented.

ANTHUR E. BROWN, Gen'l Supt.

ARRIVALS AT NEW YORK AQUARIUM FOR WEEK ENDING SEPT. 26.—From Bermuda—One octopus, one land shark, eighteen angel fishes, two Spanish hog fishes, four common hog fishes, three parrot fishes, two unusually large porcupine fishes, twelve red snapper fishes, six gray snappers, one green Maray or sea serpent, three squirefishes, and about 100 other smaller ones. The octopus, sand shark, and two immense catfishes over 200 pounds weight have since died. There have also been received one secretary bird, three Stanley cranes, and a flamingo.

ANIMALS RECEIVED AT CENTRAL PARK MENAGERIE FOR WEEK ENDING Sept. 25, 1877.—One festive parrot (*Chrysotis festiva*); one St. Domingo parrot (*Amazonia danielsonis*), presented by Mr. Thos. L. Debnay, New York city; one Grivet monkey (*Chlorocebus erythraea*); three Macaque monkeys (*Macacus cynomolgus*), received in exchange; one Humboldt's lagothrix (*Lagotherix humboldti*), presented by Mr. Isaac Brandon, Panama; one red fox (*Vulpes fulvus*), presented by Master Owen Connell, New York city; one red-tailed hawk (*Buteo borealis*), presented by Master Clarence Riker, Orange, N. J.; one Spring buck (*Gazella encloere*). This animal derives its name from the extraordinary perpendicular leaps which it makes when alarmed, reaching to the height of ten or twelve feet, and clearing fifteen feet of ground at each spring. It stands about two feet eight inches at the

shoulder, and is about four feet long. General color, cinnamon brown, with face, crop, inside of legs, tail and belly white, separated from the brown by a well-defined band of venous red along flanks; a chestnut streak from the horns to the nose; horns lyrate, with tips turned inward; end of tail with a tuft of black hair posteriorly directed. From the loins to the root of tail are two folds of skin, running parallel to each other, lined with fine white hair. These folds open when the animal leaps, thus exposing the white crop and producing a very beautiful effect. It is a native of South Africa, and goes in immense herds, migrating during seasons of excessive droughts, so that they have been compared to swarms of locusts. Mr. Pringle, an English traveler in that country, says that he once passed through one of these migratory herds, and he estimated the number at one time in view at not less than 20,000.

W. A. CONKLIN.

SPLIT BAMBOO RODS.

To Our Customers and the Public: In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

Sea and River Fishing.

FISH IN SEASON IN SEPTEMBER.

Black Bass, *Micropterus salmoides*; Weakfish, *Cynoscion regalis*.  
*M. nigricans*.  
Mullet, *Esox nobilior*.  
Pike or Pickerel, *Esox lucius*.  
Yellow Perch, *Perca flavescens*.  
Sea Bass, *Scomops ocellatus*.  
Striped Bass, *Roqus linnaeus*.  
White Perch, *Morone americana*.

FISH IN MARKET.—The piscatorial savants have been delighted the past week with a rare curiosity displayed in Fulton Market, by Mr. Blackford. The fish is known to naturalists as the American Angel fish, and was caught by a party of anglers who were blue fishing off Canarsie. The specimen has a broad, flattened body, elevated toward the pectorals. The tail is attenuated and sharp edged. The head is rather wider than long, obtuse and emarginated in front between the nostrils; depressed above and between the eyes. The neck is rather tumid and distinct, and the cheeks are flat. The eyes are small, furnished with blunt tubercles, with similar ones above the nostrils. The tongue is triangular, flat, not distinct, and terminated by a small, fleshy, round ball. Its length is about four feet, and its forward fins very like wings; the connection with the body being dissimilar to that of ordinary fish. This fish is very rarely caught, the present specimen being only the second seen in this city within twenty-five years. It is sometimes known among fishermen as the monk or monkey fish; the male rejoices in pre-eminent ugliness among the ugly forms of fish life. It belongs to the shark family, and being of the flesh-eating class a prejudice exists against it being considered edible.

Our quotations are as follows: Striped bass, 20 cents per pound; smelts, 15 cents; bluefish, 8 cents; salmon, frozen, 30 cents; green do., 35 cents; mackerel, 15 cents; white perch, 15 cents; weakfish, 12 cents; Spanish mackerel, 25 cents; green turtle, 15 cents; terrapin, \$15; frost fish, 8 cents; halibut, 15 cents; haddock, 6 cents; king-fish, 25 cents; codfish, 8 cents; black-fish, 10 to 15 cents; native herrings, 6 cents; flounders, 8 to 10 cents; porgies, 10 cents; sea bass, 18 cents; eels, 18 cents; lobsters, 10 cents; scallops, \$1.25 per gal.; English turbot, 40 cents; soft clams, 30 to 60 cents per 100; Salmon trout, 18 cents; black bass, 15 cents; sheephead, 25 cents; whitefish, 15 cents; pickerel, 15 cents; yellow perch, 10 cents; hard shell crabs, \$3 per 100; soft crabs, \$1.25 per dozen; frogs, 45 cents per pound.

MASSACHUSETTS—Gloucester, Sept. 28.—Elbridge Gerry, off Eastern Points, last Friday, caught a halibut weighing 320 pounds.

MOVEMENTS OF THE FISHING FLEET.—The number of fishing arrival at this port the past week has been 62, including 11 from the Banks with 145,000 lbs codfish and 335,000 lbs. halibut; 16 from Georges, with 200,000 lbs. codfish and 5,000 lbs. halibut; 25 from shore mackereling trips, with 1,175 bls. mackerel; and 10 from fishing trips off shore, with a fair catch of lake, codfish, pollock and haddock. The fleet engaged in the latter fishery is increasing, and will soon number some twenty-five vessels, making short trips and disposing of their fares fresh or round. A large proportion of the shore mackereling fleet are in the vicinity of Cape Cod, and have been prevented from fishing a part of the week by windy weather. They have found rather better fishing than during the summer months, but the receipts are yet very small for the season.—Cape Ann Advertiser, Sept. 28.

VERMONT—Castleton, Sept. 28.—Perch fishing is as good as ever in Lake Bombsen, thanks to the efficient measures adopted by the town authorities in removing the dead and decaying fish during the epidemic earlier in the season.

NEW YORK—Schenectady, Sept. 29.—Black bass are caught in large numbers in the Mobawk River this fall. Last Thursday, Wm. Haverley and Chris. Clute caught a string of sixty that averaged 2½ pounds each.

PENNSYLVANIA—Leesburg, Sept. 26.—Bass fishing looking up. One man brings in eighteen, ranging from one lb. to four lbs. apiece, caught at Orrison's Farm, six miles above here.

NEW JERSEY—Kinzey's Ashley House, Barnegat Inlet, Sept. 26.—Bluefish have been plenty past week, catches being made of from 80 to 100 per boat; average weight ten lbs. Capt. N. Crammer caught a 31-lb. drimfish on his squid yesterday.

Barnegat Inlet, Oct. 2.—Bluefish plenty, outside; sea bass thick; sheephead all gone; some few weakfish. Caught 38 sea bass to-day in one hour and forty minutes, averaging one pound.

Budd's Lake, Sept. 29.—The fishing the past season has not been so fine as formerly. Several good catches of bass and pickerel have been taken.

Flatbrookeville, Sept. 29.—Black bass fishing in the Delaware has not diminished. One day last week two men caught 104 pounds—including specimens weighing 3½ pounds—using small catfish half an inch long as bait. It is estimated that the average number caught per day at Flatbrookeville since July 1st, is 600.

MARYLAND.—Taylor fishing is good in the Chesapeake near Tighuan's Point.

VIrginia—Leesburg, Sept. 22.—A man brought four bass to-day, which weighed 17½ lbs.—one weighed 5½. A salmon (*Quinnat*) is thought to have been caught on Potomac near Harrison's Island. A man well acquainted with *S. fontinalis* and our usual fish took it and had never seen anything like it. He (confound him!) ate it.

—Norfolk expects to ship many oysters to Europe this winter at fair rates of remuneration.

—A rural editor says that the good are never successful in catching fish. He has proved it by personal experiment.

KENTUCKY—Louisville, Sept. 29.—Tooth herring are caught at the falls.

GEORGIA.—The Ochoopie River teems with fine fish.

OHIO—Youngstown, Sept. 20.—Messrs. J. N. McEwen, Tom Ford, Robert Bentley and Henry Stambaugh have just returned from a fishing expedition to the upper Negigon. They found excellent trouting two miles below the lake, and report an abundance of grouse and rabbits.

INDIANA—Spencer, Owen Co., Sept. 22, 1877.—On Thursday, the 14th inst., Martin Parks and his son John, who live on Calvin Fletcher's farm, put their trout-line, just above Spencer, at the narrows of White river, and at midnight "ran the line." It was evident that something unusual held the line close to the bottom. The movement of the same up and down stream led Mr. P. to decide that he did not have to deal with a rock or snag. After half an hour the cautious fishermen had an immense yellow catfish, weighing forty pounds, safe in the canoe. Again the line seemed to cling to the bottom, and again a half hour was spent in securing the game, which proved to be, not the mythical Mississippi monster; but the varmint that has for years devastated the cornfields and hog pens along the valley of White river. Twice trains of ears have been thrown from the track by it (or something else), and children refuse to go to school near the river. "Well, what was it?" you ask. A yellow cat-fish nearly five feet long, with head a foot and a half, eyes just eight inches apart, and mouth two feet around. The girth in the largest place of the fish was four feet, the weight eighty pounds. Messrs. Parks, knowing that Mr. Fletcher wanted some catfish minnows in a pond near his residence, notified him, and with a two horse team the monsters were removed to where they can be quietly fed on roasting ears until the joint high international commission send on Sitting Bull, or some other kind of beef, to sustain life.

P. S.—Since writing the above I learn that the night after the above recorded event, Mr. Parks caught another catfish weighing over sixty pounds.

Indianapolis, Sept. 22.—Mr. Reed, of the People, had wonderful luck at the Ripple on Saturday last. Among his other captures was a three-pounds eel. Enos drew him up till he saw the point of his nose, and then let go, under the impression that he had caught a constrictor. On Monday he went out again, and came home disgraced. On Monday last Capt. Arnold and Messrs. Spahr and Griffin, of the Indianapolis bar, were fishing at the Ripple. Arnold caught twenty-three fishes, all croppies, and Griffin, who fished by his side, took thirty-one, all bass. Spahr bagged twenty bass. As the parties used the same bait and tackle, it is singular that all the croppies should have patronized Arnold, while the bass took to the legal profession. Quite near them fished the crest-fallen Bard, and he'er a bite did he get the entire day.

CANADA.—Nipigon Bay, Sept. 14.—From the visitors' register at Red Rock I take the enclosed list of anglers to the Nipigon River for the season just closed. The fishing has been exceedingly good, and the speckled trout not the least diminished by the number of "rods" at work. The trout, however, have averaged somewhat less than usual—say about two pounds. Many have been caught from 1 lb. to 5½ lbs., but the general average has been small. The question is very often asked, "What is the weight of the largest speckled trout ever been taken out of the Nipigon River?" The Hon. John Simpson, of Bowmanville, Ont., about four years ago caught, in the rapids immediately above the Post, a speckled trout weighing 9 lbs. 9 oz. This I believe to be the largest ever caught in this river. Mr. W. La Ronde at Nipigon Lake, however, in the fall sometimes catches some very large speckled trout; one he weighed turned the scale at 17 lbs. He has often tried to keep these big fellows, but the length of time between the fall and the first boats in spring has been too long to keep them. He has promised to try again this fall and preserve one, and send it down to a gentleman in Cleveland. If he succeeds I will drop you a line, giving dimensions and weight.

The season has been an extremely hot one, the warmest for the past four years. Early in July the black flies were very bad, but had nearly all disappeared the first week in August. As mentioned in a letter last year, if the steamers were only properly advertised a great many more visitors would be induced to visit this famous trout river. As it is, the Sarnia line (Beatty & Coys) is the only one to be depended on. The steamer Manitoba is obliged to call in once a fortnight with the mail, and is therefore a sure means of getting to and from the Nipigon.

I hope to again see many old friends up this way next season. The Government makes a charge of \$5 per rod for the season, or \$1 per day up to five days for permits to American anglers. This is supposed to protect the trout a little, but as only sportsmen come here there is very little fear of the fishing being spoiled by carelessness.

L. THROTT.  
SALMON-FISHING ON THE RHINE.—Travelers who have made the usual journey "up the Rhine" in the proper season will not readily forget the dishes of trout and the fresh and smoked salmon that accompanied their breakfasts; and, although the latter relish is eaten raw, shaved into thin slices

and made into sandwiches with brown bread and butter, there is a flavor in it which commends itself to the palate as unique in its savory, appetizing qualities. Salmon is, in fact, good every way, just as herring is; and, though we cannot, as patriotic judges, award the palm to the fish of the Rhine, after a long experience of the Tay, the Wye, and the Severn, the German salmon possess the good qualities necessary to make them appreciated by the gourmet no less than by the artist. The small head, the round, plump body, and little scales almost lost in the thickness of the skin, are all indications of high breeding; and doubtless the noble fish has a capital time of it in the deep river, under the shadow of the empo-clad hills, or farther away in the gravelly bays and rapid falls that invite him and his kind from the sea from June to October.

The fishermen of the Rhine are a skilled and thriving class of men, for not only salmon but carp of wondrous size and flavor are to be found there. There are anglers, of course, who quietly pursue their sport in wild, sequestered spots; but those of the craft generally use the seine for taking the salmon; while in the season of their arrival, when they are most numerous and in best condition, a net is stretched from piles driven into the bed of the river. These nets are, in fact, long reticulated bags, distended by rings and open at the mouth. They are placed in the midst of a rapid current; or, if the stream is not swift enough, the flow is accelerated by means of banks. When the salmon are very plentiful they are frequently taken by a hand net, almost like that used for shrimping, and by another kind of net, stretched on arms or blades that open like a pair of scissors, and inclose the fish. The seine is carried by two boats, one end on each; and when the boats approach each other, the salmon are inclosed and hauled on board. Some, again, are taken by a drag-net from the shore, on which the fisherman walks; but that must be in places where the stream is comparatively shallow. Late in the autumn the fishing season comes to an end; the salmon is out of condition and not worth eating till he has been to the sea again to take a new lease of health and life. But there is other sport to be had, and the fishermen are seldom idle, even though they spend dull days and long evenings in making or mending their nets, caulking their boats, and preparing for the spring campaign.

SEAL FISHING.—The prosecution of the seal fishery off the coast of Newfoundland involves more danger and hardship than is generally known. About three weeks after leaving port the seals are "struck," and are frequently found in such numbers as to blacken the ice for miles around. The seal-hunters leave their vessel either in punts or by directly jumping on the ice, according to the ship's position. Their dress usually consists of a heavy "Guersey frock," flat-peaked caps, sou'westers, heavy pilot-cloth trousers, and oilcloth overalls stuffed into long sea boots. Their arms are a seal-pole knife and a long pole, with a gaff at the end called a "bat." The seal is easily dispatched by a single blow of this rude weapon on the skull. With the seal-pole knife the glistening oil-laden pelt is removed from the carcass, which is left on the ice. The cry of the seal when approached by its human enemy is most hideous, and bluff and hardy hunters have often been known to hesitate before wounding the fatal blow, especially if the pleading seal is guarding its young. In that fickle Arctic atmosphere, and when the body of the seals is a long distance from the vessel, the hunters are often benighted when storms arise and open a channel in the ice that separates them from their craft. Sometimes the vessel has to bear away for safety, and many of the crew perish from cold and hunger unless luckily picked up by some other vessel. At other times, when the ice grows weak, they remain for hours together immersed to the knees, or perhaps to the middle of the body, on frail cakes of ice. If they should survive this dreadful torture and be rescued, the evil of frost-burn awaits them, and at the close of the homeward voyage, their limbs are at the mercy of the surgeon's knife.

The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the nanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

THE LONDON, ONTARIO, BENCH SHOW.—Mr. Charles Lincoln, who superintended the Centennial, Baltimore and New York Bench Shows, has again achieved success in the Dominion. Through his kindness we are enabled to lay before our readers the following list of awards of the London, Ontario, Bench Show:

- CLASS 1.—English Setters—1, T. W. Jackson's Bruce, Chatham; 2, F. A. D'Espard's Dash. Highly commended, F. G. Simpson's Storm, Exeter. Bitches—1, W. B. Wells' Star, Chatham; 2, E. G. Simpson's Morsey. Highly commended, J. Hennessy's Kitty, Chatham; and W. G. Coupland's Fan. Pups—1, Cbs. Murray's Bronte, London, also taking S. Griggs' gold medal for best English setter pup in show.
- CLASS 2.—Irish Setters—1 and 2, J. O. Goodenough's Rap and Shot, Windsor. Highly commended, F. L. Wilkes' Silvio, Galt; T. Culbert's Dash, Exeter. Bitches—1, J. Weighell's Bird, Rochester, N. Y.; 2, W. G. Coupland's Beauty. Highly commended, John E. Platt's —, London. Pups—1, E. L. Wilkes' Dash, Galt. Highly commended, Jas. Longhead's —, Strathroy.
- CLASS 3.—Gordon Setters—1, T. A. Smallman's —, London; 2, W. T. Crisp's Bob, Ingersoll. Highly commended, Dr. Niven's Don, London. Bitches—1, Jas. Glen's Belle, London; 2, J. D. Thomson's May, Toronto. Pups—1, Dr. Niven's —, London.
- CLASS 4.—Pointers over 50 pounds—1, J. Weighell's Dash, Rochester; 2, E. Richard's Bob, London. Highly commended, J. Rimbough's Iris, London. Bitches over 50 pounds—1, A. H. Graydon's Belle, London; 2, S. T. Bastico's —, Princeton.
- CLASS 5.—Dogs under 50 pounds—1, J. Weighell's Shot; 2, J. Olen's Sport. Bitches under 50 pounds—1, J. Weighell's Mollie; 2, Geo. Hare's Toronto.
- CLASS 6.—Pointer Pups—1, George Hare's Tronto. Highly commended, Robert Griffin's, T. Howson's, Windsor; J. O. Boyd's Burlington; A. Elliott's, Rond Eau.
- CLASS 7.—Chesapeake Bay Dogs—1, G. W. Kierslead's Nelly, Lu Port, Ind.; 2, E. H. Gillman's Pride, Detroit.
- CLASS 8.—Water Spaniels—1, Big Point Kennel Club's Micko,

Chatham; 2, do, Grouse. Highly commended, A Cleghorn's Ranger and Trimmer; O Cannon's Bob; Dr Niven's Jeff.

Class 9.—Cook Spaniels—1, C A Brough's Peter, Toronto; 2, do, Thia. Highly commended, C D McDougall's Lady Bessie, E Theloy's Garry, W E Walcott's Dash, John Hammond's Bessie and Sailor.

Class 10.—Field Spaniels—1, J F Hellmuth's Louie, London; 2, P O McCann's Kaiser, London. Highly commended, GR Murray's Ben.

Class 11.—Fox Hounds—1, J Weighoff's Rock; 2, do., Buck. Highly commended, D Shea's Forroster, A J B Macdonald's Clyde, Wm Sloggett's Ratter and Rolla, G Kennedy's Hasty, G Cummings' Riot, E L Wilkes' Ranger.

Class 12.—Fox Terriers—1, Chas J Fox's Young Sport; 2, do., Prince. Highly commended, R Gibson's Viper, Venom and Tip, Wm Dobson's Nettie.

Class 13.—Grey Hounds—1, J E Dawson's McGrath, London; 2, C A Brough's Lady, Toronto. Highly commended, J E Dawson's Philt, D L Cavan's Sallie.

Class 14.—Scottish Deerhounds—2, W B Barry's Gauntlet, Hamilton.

Class 15.—Mastiffs—1, J Leary's Countess, St. Mary's, St. Bernard's, 1, Wm Dempster's Barry, Ingersoll; 2, A E Davis' Novell, Hamilton. Highly commended, M P Hays' No Name.

Class 16.—Newfoundlands—1, Maj Milligan's Nell, London; 2, A G Sanders' Neptune, London. Highly commended, J A Doyle's Jim Peenders, John Glen's Major.

Class 17.—Dalmatians or Coach—1, John Ormerod's Spot, Branford; 2, J H Heath's Spring, London. Highly commended, J Thomson's Juno, J Fairbairn's Spot, T E O'Callaghan's Kaiser. Class 18 and 19.—Rough-coated Shepherds—1, C G Hartman's Driver, Daytonville; also taking special prize of silver cup; 2, Jas Cox's Shepheard, Strathroy. Highly commended, Janus Cox's Chester. Smooth Coats—1 and 2, Jas Cox's Nettie and Dart, Strathroy.

Class 20.—Bull Dogs—1, Jas Dains, London.

Class 21.—Bull Terriers over 20 pounds—1, G F Garnet, Ingersoll; 2, Wm Vasele, Cleveland, O. Highly commended, E C Ellis, St. Thomas.

Class 22.—Bull Terriers under 20 pounds—1, H V Meredith, London.

Class 23 and 24.—Black and Tan over 11 pounds—2, A Thorne, London. Black and Tan under 11 pounds—1, D T Perri's Jack, London, a pretty little dog; 2, J J Brown. Highly commended, A Arbuckle, London; H Jell, Wardsville.

Class 25.—Skye Terriers—1, Miss Mitchell's Sam, London, a handsome old dog; 2, Tey Mr Darnell's, London.

Class 26.—Yorkshire Terriers—1, Mr. Wilkes' Rowdy, Galt; 2, Job Ehling, Cleveland.

Class 27.—Scottish Terriers—1, Jas Smith's Tiny, London; 2, A Black's Toby. Highly commended, Wm Elliott's Jerry and Tom; W Dempster, Mr. Black.

Class 28.—Toy Terriers—1, Jas Glen's Pinkney.

Class 29.—Pomeranians—1, A Anderson's White Prince, London; 2, H Roat's Doodle, Preston. Highly commended, H R Chee, James Anderson, R Richard, M O Andrews.

Class 30.—Miscellaneous—1, B O Marshall's very handsome retriever bitch; 2, H Hartin's French poodle, of Branford.

LARK.—We call attention to the advertisement in another column of this stud dog, in the hands of Mr. Wannaker. Though not coming in direct competition, Lark has virtually beaten the best blue bloods in America, as he took the first prize in the largest class ever shown—that of native setters at New York Beach Show—over Bruce and Nip and Tuck. These latter having beaten both Paris and Leicester. He is the property of Mr. P. H. Morris, of this city.

A DOG SHOW FOR SAN FRANCISCO.—San Francisco is to have a dog show. Premiums aggregating \$5,000 are to be offered.

NAME CLAIMED.—Thos. P. Cantwell, of Brainerd, Minn., claims the name of "Blix" for his black pointer bitch pup, bred by J. L. Woodbridge, of North Manchester, Conn. Sire, Strong's Champion Pete; dam, Woodbridge's Nell, whelped June 23, 1877.

W. H. Pierce, of Peekskill, N. Y., claims the name of Pride of Cortland for his black and white setter-puppy, out of his Fanchon, by Crary's Nero, of Oshkosh, Wis.; he also claims the name of Queenie for bitch puppy, same litter, the property of M. H. Hovernal, Independence, Iowa.

CROOKED LEGS IN DOGS—HOW TO CURE.—Take an old boot leg and cut a strip off as long as his leg from the first joint above his toes and wide enough to go around his leg. Make some holes in each side so as to run a piece of cord through and lace quite tight, but not too tight, for if you do it will chafe him. Cut some slits in the end of this boot, so it will be quite soft and not chafe his leg while moving around. Examine his leg now and then to see that the boot does not chafe.

LOUISVILLE DOG SHOW.—Al. Bourlier gives as a special premium a galvanized iron cup of immense proportions to the ugliest dog exhibited. The special premium list for the bench show is growing very rapidly, and numbers thirty-five or forty already.

DOGS THAT SUCK EGGS.—"Check Cord," of Shrewsbury, N. Y., sends the following remedy for this bad habit: I wish to state it is my belief that a judicious use of the whip will do it, but if that fails, place a charge of gunpowder on the ground, put an egg upon it and lay a train of powder from the charge to a convenient distance, and stand by it with a lighted sear. When the dog is in the act of taking the egg touch the sear to the train of powder. Information is requested from those trying the above remedy if a second application is needed.

APPARENT WANT OF NOSE.—Although it sometimes happens that young dogs lack those olfactory powers for which they are so valuable to the sportsman, they should not be condemned without a fair trial. It often happens that this defect is remedied as the animal advances toward adult age. With dogs that have but just recovered from distemper, this defect is frequently noticeable, but is seldom if ever permanent. During a long drought, when the herbage is in a very dry state, it happens that the keenest nosed animals are frequently unable to find game. In such case let a second trial be given when the state of the weather and moisture of the fields will be more advantageous to the animal. We are confident such will prove satisfactory to the writer. A beautiful setter pup presented to the writer a few years since, seemed to be absolutely without the faculty of scenting game. Being shut in the office one night, in his high jinks, he overturned a jar of locules, and probably nosed them, as in the morning he was found bleeding profusely from the nostrils, and had evidently been suffering from hemorrhage the greater part of the night, as he was badly ensanguined.

An examination into the state of affairs showed the leech jar broken, whereupon it was conjectured that some of the reptiles had found lodgment in the nose or throat. The result confirmed the diagnosis, two being found attached to the posterior fauces, and three were washed out of the nostrils, four remaining to be accounted for after those on the floor were picked up. They were probably swallowed. The animal recovered, and with the recovery his infirmity disappeared. Such active treatment is not however recommended.—Hallock's Sportsmen's Gazette.

LOUISVILLE'S HYPOCHONDRIAC CANINE.—There is one of the strangest and most singular dogs in this city that we have ever known. He is a medium-sized yellow dog, with some long wiry hairs about his muzzle, with unusual reddish looking eyes, as if he had been weeping. He is a waif of unknown parentage and ownership, and no one knows from whence he came and where he sleeps and habitates. He looks about two and a half years old, and as he has no owner nor home, he goes by the euphonious title of Gutters. He wears a singularly sad and melancholy look, never associates with other dogs, and seems to be overcharged with sorrow. The strangest and most peculiar trait in his character is his fondness for funerals, and for the last two years not a funeral cortege has passed through the gates of our beautiful cemetery but what has seen Gutters in close attendance. Mr. Bell, the superintendent of the cemetery, says that Gutters visits him twice every Sunday, morning and evening, and that it is only on Sundays that he deigns to notice him or any of his family, totally ignoring them upon every other day of the week. When spoken to he does not approach you with a wagging tail and cheerful countenance, but seems to accept your attentions formally and with a sad air.

Some malicious person has put out one of Gutters' eyes, which gives him a still more sad and melancholy countenance. He seems to visit few places besides the cemetery, but about 7 o'clock every morning he can be seen in front of Mr. Featherston's butcher shop on South Upper street, waiting for his breakfast. After his morning meal he is not seen again during the day, except there be a funeral, when he is certain to be present and take his place among the mourners, starting with a vacant and sad look as the coffin is lowered to its last resting-place. How he learns when there is to be a funeral we are unable to state.—Kentucky Live Stock Record.

Yachting and Boating.

HIGH WATER FOR THE WEEK.

Table with columns: Date, Boston, New York, Charleston. Rows for Oct. 5, 6, 7, 8, 9, 10, 11.

MASSACHUSETTS—DORCHESTER YACHT CLUB, Sept. 29.—The fourth regatta of this club was sailed off Commercial Point, Dorchester, over a course, for schooners and first class boats, of twelve and one-half miles; for second class and keel boats, a distance of nine and one-half miles; for third class, five and one-half miles. Following is the summary:

Table with columns: Name, Owner, Length, Actual Time, Corrected Time. Includes sections for Schooners, First-Class, Second-Class, and Keels.

TENDERS (named after the yachts they tend). Hermes, first prize, silver and glass wine stand; Mabel, first prize, silver fruit dish; Violet, second prize, nickel encaused marine clock; Robie, first prize, silver celery stand; Wanderer, second prize, a silver sugar-spoon; Suisey, first prize, one pair sugar spoons; Psyche, second prize, a gold charm compass; Sunbeam, first prize, a fold sea; Lydia Adams, second prize, olive fork; Mariguita, first prize, a silver goblet.

MASSACHUSETTS.—Boston Yacht Club.—The final regatta of the Boston Yacht Club for the present season was sailed on Wednesday, Sept. 26, to settle the prizes in the second and third classes. The Shadow and the Violet had each gained one race in the second class, and the Wanderer, Robie and Posey one each in the third class. The Shadow won the prize in the second class, and the Posey the prize in the third class.

UNION BOAT CLUB—Sept. 29.—The four-ored shell race of the annual fall regatta was rowed on the Charles River Saturday evening. There were two crews. Williams crew—C. H. Williams, Jr., I. H. Houghton, R. H. Jones, W. S. Eaton, Harry Williams (coxswain). Lee crew—George Lee, Richardson, W. Appleton, Caleb Wilder, E. C. Ellis (coxswain). The Williams crew won in fourteen minutes.

CONNECTICUT.—Hartford Rowing Club.—In the final regatta, held Sept. 26, the one-mile single-oar race for the senior championship and a gold medal was won by Capt. H. Andrus, in 14m. 43s.; the junior championship and a silver medal won by H. H. White in 15m. 24s.

NEW YORK.—Atlantic Yacht Club Regatta, Sept. 27.—The annual regatta of this club for the champion pennant, and additional competition prizes for schooners and first-class sloops was contested by ten yachts. The course was for second-class sloops from the starting point off Bay Ridge to and around buoy No. 87 on the Southwest Spit and return. Schooners and first-class sloops the course led around by No. 87 out to and around the Sandy Hook Light-ship, back through the Swash channel to the place of departure. Following is the summary:

Table with columns: Name, Owner, Elapsed time, Corrected time. Includes sections for Schooners, First-Class Sloops, and Second-Class Sloops.

GRAMERCY VS. FRIENDSHIP—On the Harlem, Sept. 27, single scull race was rowed by representatives of these clubs, in which George Garsil of the Gramercy Club 1, Emil Conlon of the Friendships. Time, 20m. 49s.

HUDSON RIVER AND PAVONIA YACHT CLUBS.—Union Regatta, Sept. 27.—This regatta was sailed on the Hudson, a course from a stakeboat off the club house, foot of Seventh street, to and around a stakeboat off Port Lee and return. It was sailed twice over, making in all a distance of two miles. Following is the summary:

Table with columns: Name, Actual, Corrected. Includes sections for First Class, Second Class, and Third Class.

HARLEM REGATTA ASSOCIATION, Oct. 2.—The first annual regatta of this association was rowed on the Harlem River, proved very successful. The contests were open to all amateurs and the several events were well contested by numerous competitors. The course for the trial heats was from McClellan dam one mile straightaway down stream; in the final he one mile straightaway up stream from Gates' Dock. The summary of the trial heats is as follows, the names being given in the order in which they crossed the line:

Junior sculls—First heat: E. Conlin, Friendships, 6m. 52 1/2 s.; S. Wilson, Nassau; J. V. Elliott, Seawanhauk; W. Conroy, Cobles; J. J. Gunther, Nassau. Second heat: W. Hurley, Friendships, 6m. 37 1/2 s.; W. R. Keen, Nonpariels; J. Frazier, Palisades; J. D. Nassau; S. S. Lee, Palisades. Third heat: H. Livingstone, Yale; G. G. 15 1/2 s.; W. Childs, Nautilus; J. A. Ackerman, Empire; J. M. Aronson, Fourth heat: G. Gabriel, Gramercy, 6m. 41 1/2 s.; P. Ockerhausen, Hudson; J. P. Kingdon, Seawanhauk; E. A. San Wesleyan College. Final heat: Livingstone, 6m. 43 s.; Gaisel, Conlon, 6m. 23 s.

Pair—First heat: Athletics, 6m. 29 s.; Nautilus, 6m. 47 1/2 s.; Atlantic, 6m. 57 s. Second heat: Atlanta, 6m. 41 1/2 s. Final heat: Atlanta, 6m. 11 1/2 s.; Athletics, 6m. 15 s.

Senior sculls—First heat: J. McCarty, Friendships, 7m. 22 1/2 s.; Pearson, Yankees; J. A. Ackerman, Empire. Second heat: G. W. Trenton, 7m. 26 1/2 s.; J. P. Kingdon, Seawanhauk; A. Moffat, Palisades. Third heat: E. Mills, Athletics, 9m. 59 1/2 s.; J. H. Abel, Nassau. Heat: Lee, 6m. 37 1/2 s.; Mills, 6m. 37 1/2 s.; McCarty, 6m. 39 s.

FOURS—Columbia College, 6m. 30 1/2 s.; Atlanta, Wovenbooks, 6m. 30 s.

SIX-OARED GIGS—Columbus, Dauntless and Friendships. The distance between the first two was adjudged to be just one-quarter second.

MINIATURE YACHTING.—The monthly regatta of the Atlantic Model Yacht Association took place on the lake at 110th Street, Sept. 29. There were six entries; four schooners and two sloops. The schooners entered were the Victoria, Katie B. and Yankee Traveller; sloops Cloud, Commodore Bennett, and Yankee three heats sailed, but in the third heat the first boat in was six seconds behind specified time for making the distance, which is 15 min the race was not decided.

THE OWASCO LAKE REGATTA.—The three-mile race for fessional single sculls, which was rowed Sept. 27, resulted another easy victory for the champion Connecticut, who now come in ahead in twenty-eight races. The following is the time of the competitors:

Charles Courtney, of Union Springs, 36m. 21s. James Riley, of Saratoga Springs, 37m. 21s. French Johnson, of Boston, 38m. 21s. James Ten Eyck, of Peekskill, 39m. 21s. Laburger, of Pittsburg, 40m. 21s. Time not to be made.

ARGONAUTS VS. NEPTUNES.—The four-ored shell race between the Argonauta Club, of Bergen Point, and the Nept Club, of Staten Island, took place Sept. 29 on the Kill Kull. In 1870 and 1871 the Neptunes vanquished the Argonauts, and in 1872 and 1873 the Argonauts beat the Neptunes. This contest was waged for the championship of Kill Von Kull and a set of colors, and resulted in a hands victory for the Argonauts, they winning by four lengths. The race course was from between Elm Park dock and light-house to a point this side of Elizabethport and return being one and a half miles each way, or three miles for whole race. Time, 21m.

DARE DEVIL VS. WALTER F. DAVIDS.—The second race between the yachts Dare Devil and Walter F. Davids came off at New Rochelle, N. Y., Sept. 29, stakes \$25 side. The contest proved a close and exciting one, and won by the Davids by one minute. Time, 4 hours 10 m. The course was ten miles to the windward and return—1 1/2 Echo Bay to a stake boat anchored off Oak Neck, about 10 miles east of Matinecock Point, and return.

FUSHING REGATTA, Sept. 25.—This regatta proved a success. The breeze was from the southwest and favored for sail sailing. The course was from the Hoffman House.





A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INDOOR AND OUTDOOR INTERESTS OF MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.

[Post Office Box 2833.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, OCTOBER 4, 1877.

To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts. Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

CALENDAR OF EVENTS FOR THE COMING WEEK.

Friday, Oct. 5.—Trotting: Syracuse, N. Y.; Manhattan, Kan.; Cleveland, O.; Loudonville, O.; Danbury, Conn. Base ball: Cincinnati vs. St. Louis, at Louisville; Louisville vs. Chicago, at Chicago; Cricket vs. Rochester, at Rochester; Chelsea vs. Alaska, at Jersey City; Lowell vs. Boston, at Brockton, Mass.; Excelsior vs. Brooklyn, at Williamsburg.

Saturday, Oct. 6.—Trotting: Danbury, Conn. Base ball: Cincinnati vs. St. Louis, at St. Louis; Lowell vs. Manchester, at Lowell, Mass.; Syracuse Stars vs. Auburn, at Rochester. Cricket match of veterans, Prospect Park, Brooklyn. Boston Union Athletic Club games on Boston base ball grounds.

Monday, Oct. 8.—Base ball: Louisville vs. Mutual, at Janesville, Wis.

Tuesday, Oct. 9.—Trotting: Poughkeepsie, N. Y.; Frederick, Md.; Leavenworth, Kan.; Columbus, O.; Beacon Park, Boston. Base ball: Louisville vs. Mutual, at Janesville, Wis.

Wednesday, Oct. 10.—Trotting as above. Base ball: Louisville vs. Milwaukee, at Milwaukee, Wis. Fall meeting of the Dartmouth Athletic Association, Hanover, N. H.

Thursday, Oct. 11.—Trotting as above. Meeting of Dartmouth Athletic Association as above.

THE BRITISH TEAM.—We have the pleasure of presenting our readers this week with correct portraits of the British Team, the descriptions of which will be found in another column. The photographs of the American Team are now in the hands of the engravers, and the portraits will appear in a subsequent issue.

ACKNOWLEDGMENTS.—We acknowledge, with thanks, the receipt of numerous invitations to attend agricultural exhibitions, very few of which it is in our power to accept; we wish them all success.

HALLOCK'S SPORTSMAN'S GAZETTEER.—Mr. Robert Ormsby Sweeney, Fish Commissioner of Minnesota, says: "I am the happy recipient of 'The Sportsman's Gazetteer.' To begin at the beginning, I think the portrait of the author is remarkably correct, and when I look upon the counterfeit presentment it seems to me uncommon fair. The contents of the volume as far as my cursory examination warrants a judgment, are very interesting, useful and valuable. It gives much information which heretofore was only to be had upon considerable research among many authors, necessitating outlay of time, labor and money, three ingredients of this life not always at one's disposal simultaneously."

INITIATING AN IMPORTANT MOVEMENT.

WE are well aware of the efforts that have been made by individual railway corporations and local agents of Express companies, during the past two years or so, to prevent the transportation of game over their lines during the close seasons, but we believe that the Adams Express Company is the only corporation that has publicly promulgated rules to govern its employees in accordance with the State enactments or the dictates of that policy which perceives the necessity of proper restrictions at certain seasons to prevent the extermination of our game. Below will be found a printed copy of an order just issued from the office of the Manager and Superintendent of this company at Bridgeport, Connecticut, which other Express and Railway companies would do well to imitate at once, so that the object of the laws and the aims of our game associations and their supporters may be carried out through that co-operation and harmony of action which is required to insure success.

We are glad that so powerful an organization as Adams Express Company has been moved to take the initiative in this matter at so opportune a time as the present. Laws and protective societies are comparatively useless while transportation companies clandestinely carry illicit game under false labels, and thereby encourage the killing of game out of season by providing a market for it. We have seen our Western pinnated grouse or prairie chickens sent to England by the steamer load, and our ruffed grouse brought from New England localities to Boston, New York and Philadelphia markets by the thousand packages; woodcock sold at our Saratoga hotels, and our highest public officials who are the sworn conservators of the laws, partaking of illicit dainties with a gusto and relish which would hardly seem to pertain to a palate conscious of wrongdoing. This will be put a stop to in future if the action of Adams is sustained throughout the country. We think the true key to the solution of a difficult problem has been reached herewith. While no better measure was devised—or rather adopted—we were inclined to encourage the maintenance of those State laws which forbade the carrying of game out of the State wherein it was killed at any time of the year whatever, although they were arbitrary and discriminating; they prevented all the States of the Union enjoying alike the delicate morsels of quail on toast, partridge roasted, or prairie fowl en fricassee. Why should the people of Iowa and Kansas be alone permitted to enjoy those luxuries which other States are willing to pay a high tariff to secure for themselves also? This is a question that has been asked with proper seriousness by the most thoughtful minds.

Toothsome as these viands are, and careful students as we have been of the science and pleasures of gastronomy, we have, nevertheless, been willing as law-abiding citizens, to journey to Iowa and eat our chickens on the spot where they were shot, at great expense of purse and tear of travel, in order that the desired results of restrictive measures might accrue. We have submitted to behests which wisdom compelled the folly of wanton waste and senseless destruction to submit to. Now, however, with the action of all the carrying companies combined, such odious laws would become no longer necessary. A call for their abrogation is in order just so soon as such measures shall be thoroughly and capably carried out.

All honor is due the Adams for initiating this movement, and if they shall preadventure be the means of giving us an epicurian diet in future, instead of the sour, emaciated and unhealthy food which we can only obtain by stealth when its use is forbidden, then all the world of Eaters will rise up and call them blessed.

"As in Adam's fall  
We sinned all,"

so in the uprising of their well-doing let us all find grace, mercy, peace of conscience and grateful abundance:

ADAM'S EXPRESS CO., NEW ENG. DIV.  
BRIDGEPORT, CONN., SEPT. 20, 1877.  
OFFICE OF MANAGER AND SUPERINTENDENT.

The attention of employees is called to the subjoined extracts from the game laws of Connecticut, and they are hereby notified that a strict compliance with said laws on the part of this Company will be exacted.

C. SPOONER,  
Manager and Superintendent.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Sec. 1. That it shall be unlawful for any person or persons to hunt or pursue, kill, destroy, or attempt to kill, woodcock, quail, or any ruffed grouse (commonly called partridge) between the first day of January and the first day of October in each and every year. And every person so offending shall, for each and every offense (the killing or destroying or having in possession of each bird shall be deemed a separate offense) be deemed guilty of a misdemeanor, and on conviction shall be fined not more than twenty-five dollars for each and every bird killed, and costs of suit, and shall stand committed to the county jail until such fine is paid; provided that such imprisonment shall not exceed twenty-five days for each and every offense above named.

Sec. 4. No person or persons, or transportation companies shall buy, sell, or expose for sale, or have in his or her possession, for the purpose of selling or exposing for sale, or for transportation, or for any purpose, any of the birds mentioned in section one of this act, during the period in which it shall be unlawful to kill such birds; and any person or persons so offending shall, on conviction, be fined and dealt with as specified in section one of this act.

Sec. 1. No person shall catch any brook trout, except with a hook and line, nor sell, expose for sale, purchase, catch, or have any trout in his possession, except from the fifteenth day of April to the first day of July; provided, that any person may take trout in waters owned by

him, for the purpose of stocking other waters, or take and sell any trout reared in such waters.

Sec. 2 provides a penalty of not less than three nor more than fifty dollars, or imprisonment in jail not exceeding thirty days, or both.

"FAUNA BOREALIS."—In one of Mr. Hallock's recent Hunting Notes from Minnesota, while in company with John Swainson, Esq., of St. Paul, who is recognized everywhere as a naturalist of no mean abilities, he mentioned Mr. Swainson incidentally as being the joint author with Richardson of "Richardson and Swainson's Fauna Borealis." The statement was made under a false impression, and we herewith hasten to apologize for having inadvertently hurt the honorable sensibilities of Mr. Swainson or done injustice to the gentlemen whose name his own was connected with. We take the liberty to publish the following private letter as the best vindication which we can offer in our own or Mr. Swainson's behalf:

ST. PAUL, Minn., Sept. 27,

EDITOR FOREST AND STREAM AND ROD AND GUN:

In your last issue there is a mistake which I am very anxious to have corrected at your earliest opportunity. Mr. Hallock, in his description of our grouse hunt at Madelia, and of your very humble servant, has put me down as "the joint author with Mr. Richardson of Fauna Borealis." After writing the article in question, and probably mailing it, Mr. Hallock, in the presence of Mr. Warner, asked me whether I had not written the work in question, to which I emphatically answered, No. He probably afterward forgot all about it. This places me in a rather unpleasant position, as anybody seeing the statement, which apparently was written while Mr. H. was in my company, would naturally come to the conclusion that his information in regard to the authorship of "Fauna Borealis" came from me, and thus be very apt to put me down as an impostor. If there is any weakness I carefully tried to avoid in the whole course of my life it is to shine with borrowed plumage. Please put this matter in the right, and oblige very much

Yours respectfully,  
JOHN SWAINSON.

—We are indebted to Brother Rowe, of the Chicago Field, for very courteous attention shown us during our brief visit in Chicago, a week ago, while on our return from a visit to the farther West.

—Mr. Fred Mather will sail for Germany, October 13, per steamer Mosel. He takes out a few *Sabno quinquet* eggs for Frank Buckland, of the United Kingdom Fishery Commission, for the *Societe d'Acclimatation*, Paris, for the Prussian Minister of Agriculture, for Honingim, and for the *Deutsche Fischerie Verein*, and also a number for the Netherlands. Mr. Mather's principal object is, however, the study of the chief Aquaria of Europe, their construction and management, with a view to future application in the United States.

BEAR WITH US.—Here is one of those incidents which a sporting editor becomes heir to by virtue of his profession. Read this message which was sent us but recently:

BUTTERNUT CREEK, Wis., Sept. 29, 1877.  
Editors Forest and Stream—Sent yesterday by express a bear, and today a cub, both killed on the town plot; plenty more here.

HART & BARNADGE.

In view of the foregoing it becomes us to ask "What's brewin' now?" Why this premeditated invasion of our sanctum by the shaggy denizens of Butternut Creek? Times have been bad with us, but now they promise to grow *ursa* and *ursa*! We can hardly be blamed, however, as we have never played for high steaks. "For-bear" is always our motto, though we do not intend that our exchequer shall be entirely bare at any time. If our friends Messrs. Hart & Barnadge have really instigated this raid upon us, or if the officers of the Wisconsin Central Railway are their abettors in the matter, we will try and practice this virtue of forbearance. We can only say that if bears are common on their town plot we are equally well off here; and if they will only come to New York we will show them the lions of this place. We await the arrival of the express with equanimity.

GAME PROTECTION.

CONNECTICUT—Hartford, Sept. 21.—We have been unfortunate in this State, until the present year, in having statutes that were so worded that they could not be enforced; but, by earnest efforts, we have at last succeeded in securing what I believe to be the best law now in force in any New England State—first, because it makes the season open on the same day for quail, partridge and woodcock, and secondly, because it forbids the shooting of woodcock in summer, thus preventing their too rapid extermination, and saves the young quails and partridges which are killed out of season by parties who pretend to be hunting for woodcock. We have for several years received information that certain parties in Tolland and Windham Counties paid no attention to the game laws, but boasted that they would do as they pleased in spite of all law or game clubs. By the judicious use of a detective, we have succeeded in convicting three of those very parties during the past week, and they have been obliged to pay such heavy fines that I do not think they will soon repeat the offence. We have sufficient evidence to convict about eight now, and their cases will be pushed as fast as possible. I believe that the game laws when properly constructed can be enforced.

Yours truly,  
MEDICUS.

Hartford, Sept. 25.—For years the sportsmen of Connecticut have waited patiently for the enactment of proper game laws by our State Legislature for the protection of game and fish, and not until this year have their efforts been rewarded. But we now have laws as near complete as we ever hope to make them, and if only observed for a few years will make this State a "happy hunting ground" for sportsmen. These impose heavy fines for the netting of trout, or their capture in any way except with hook and line, and only then from April 15 to July 1.

The Rifle.

OUR TEAM PICTURES.

The cuts which we present in our extra sheet of to-day of the British team have been engraved expressly for our pages from most excellent photographs taken by Fredericks & Co., of 770 Broadway, N. Y. They show to the life the lineaments of this celebrated band of small-bore experts, and will enable the readers of the FOREST AND STREAM AND ROD AND GUN to see at a glance of what stuff riflemen are made.

Sir Henry Hallford is an Englishman through and through—a sportsman and a gentleman, ready to own up to a fair square defeat, when such shall befall him, but with the same breath to declare his willingness to try conclusions again. His love for the rifle and rifle shooting has led him to take a very active part in the management of the affairs of the National Rifle Association of Great Britain, and in the council board and on the field at Wimbledon his presence is rarely wanting. His abundant leisure and ample means have enabled him to gratify his inclinations as a marksman to their full bent, and since 1860 he has taken and maintained a position among the foremost rifle shots of England. He has fired seven times in the Elcho shield eight, twice making the leading scores. He is now 49 years of age, stands about 5 feet 9½ inches high, and shoots in the "Fulton" position.

Joshua K. Miller is one of the Irish wing of the team, and a genuine Irishman he is. He is a young man, his years being less than thirty, and in build he is lithe rather than bulky. As a rifle shot he has enjoyed great experience, and as a member of the Irish eight on several occasions has done gallant work; 203 was made by him at Wimbledon recently, the best that range can boast. While at Creedmoor, a year ago, his spurt of fifteen consecutive bull's-eyes at 1,000 yards makes him as well the champion here. His posture in firing is a peculiar modification of the "back position, the barrel rests upon the upturned toes, while the heel is tucked into the right armpit.

Lieut. George Fenton is another of the Irish contingents and his great, stalwart form and broad, resolute face have been seen on other occasions at Creedmoor. He is thirty years of age, full 6 feet tall, and weighs 187 lbs. In all his small-bore experience Lieut. Fenton enjoys the peculiarity of never having scored a miss in a match. He has fired at Dollymount and at Wimbledon, and has been on the Irish eight several times. He is a firm advocate of the prone, or "belly" position in firing, and thinks it as good as any other.

William Rigby is a cousin of John Rigby, and is associated with that gentleman in the firm of John Rigby & Co., makers of the celebrated Rigby Fire arms. He has visited this country as a member of former Irish teams, and in his quiet, almost solemn way of shooting impresses the spectator as a formidable adversary. He is about forty years of age, and uses a position exactly similar to Miller's in firing. He has been a pretty steady representative on the Irish eight, and has in private competitions enjoyed a good run of success.

William Ferguson is the sole Scotchman on the team and was fully worthy of his place. He holds the post of color sergeant in the First Inverness regiment of volunteers and does equally good service at Snider rifle shooting and at long-range work. He is short of stature, about forty years of age and for nearly a score of years has been prize winning on Scotch and English ranges. On the Elcho shield Scottish eight Sergt. Ferguson has fired again and again. His position in firing is a back one with rifle resting between the crossed legs.

Arthur Paget Humphry is the youngest man on the team, almost as slim as a whip-slick in the build. He is twenty-seven years of age and has not yet dissolved his connection with Cambridge University, his intention being to enter upon the profession of law. He, too, is an old Snider shot and has won the highest distinction attainable to an English volunteer—the Queen's prize for his corps of the Cambridge University rifle. Lately he has devoted himself to long-range work and on two occasions has fired on the English eight. He uses the prone position in firing.

Henry Saville Ward Evans is another of the young men of the team and has a quiet, self-dependent way of working which unakes him a team, whose system is to have each shift for himself. He is small in build and shoots in a back position peculiar to himself, crossing his legs and pulling off the trigger with his left hand. He is a barrister and is connected with the Inns of Court Rifles, "the Devil's Own" as they are humorously dubbed. He came over last year as a friend of the Irish Riflemen, and at home has fired for years at Wimbledon and always with brilliant success.

Lieut.-Col James Fenton derives his rank from his post in the 24th Lancashire Volunteers. His extensive acquaintance with military shooting leads him to keep to the belly position at long range work, making him not so reliable as he otherwise would be. He has for many years been successful in winning a place upon the English Eight for the Elcho Shield Match, and to recite the list of his deeds and successes in private contests would be tedious. He is a stout-built gentleman, with full beard, and filled the post of trusted counselor to Sir Henry.

A CHAPTER OF ERRORS.

I. The officers of the American Rifle Association announced a contest for the De Peyster Badge at their range at Glendrake on Thursday last, but in place of the spirited contest in 300-yards shooting which was anticipated, the day was spent in a wrangle, and ended in a temporary settlement of the dispute before a justice of the peace. The badge, which is a valuable one and much prized by the National Guard marksmen, has been since the last contest, some months ago, held by Lieut. J. A. Gee, of the Eighth New York Regiment, under the custom of allowing the winners to hold the trophy, from match to match, until it is finally won for the third time. When the hour for shooting the match had arrived, the trophy was demanded from Lieut. Gee. He refused to deliver it until the match had been fired. Major Coburn, of the Twenty-seventh Regiment, the executive officer of the range, refused to permit the competition to go on until the badge was formally in possession of the association. Each of the contestants held to his position and spent the day in heated discussions of the situation, a number of the Eighth Regiment men and others filling up the time in subscription or sweepstake shooting. When Lieut. Gee came to leave the range late in

columns that the Legislature pass the necessary enactments, and we now call upon sportsmen and sportsmen's clubs for united and determined action in this scheme:

To the Editor of the Utica Morning Herald:

In your weekly issue of the 4th, I notice an editorial article upon the preservation of game in the Adirondacks the perusal of which suggested the few words I send you in this communication.

The "startling facts" you mention concerning the wholesale slaughter of deer in the wilderness are well known to all frequenters of that region. The general public also have knowledge of them through the medium of the newspapers which are constantly giving them publicity.

Your suggestion that the State should create, by law, a forester with necessary assistants, having requisite power to enforce the game laws is wise. There is no other efficient means for remedying the evil complained of. This was one of the measures contemplated by those who sought a few years ago the creation of a State Park in the wilderness. They strove by a very simple legislative act to preserve the woods, the waters, the fish and the game of that wild region. I am sorry to say that the effort, contrary to your statement, failed. New York has no "State Park," although it has at hand all the material for a magnificent one. Some day the Legislature may seize the opportunity to create such a park. It would cost nothing, but would be worth a great deal to the people of the State. P. H. A.

Syracuse, Sept. 15.

Waggle's Nest, Adirondacks, September, 1877.—Ill health, the effect of hard service in times past, kept the writer hereof away from FOREST AND STREAM a great part of the season, and broke up his promised Adirondack tour altogether, and he fears will break up another to the far-famed Grant County woods and waters in West Virginia, spoken of in an enticing sketch in "our paper"—the F. and S. and R. and G., some weeks since.

But I did manage to get in two days of the last week of the season on the Beaver Hill and to pull in, on dark flies, mostly black ant, about 250 nice speckled trout.

I was too mad most of the time, however, to fish well, for there was a gang of pot-hangers over there, fishing night and day, going up all the little brooks that run into the stream and taking out the trout from under the rocks with their hands, literally by bushels, for the water was so low the poor things could not escape that kind of fishing.

I can forgive a hungry man if he plays cranc to get enough to eat; but such wholesale slaughter—such a low-lived grab-game should elicit the scorn of all true sportsmen. The same gang were shooting ruffed grouse before the season, well knowing that there was no game constable over in that wilderness, nothing that they possessed in the shape of a conscience to stop them. The Beaver Hill a few years ago was one of the best streams in the State. But its day has gone—I fear forever gone! Gangs go in, in the winter, and fish the ponds in which the stream heads, through the ice, taking out trout by the thousand, regardless of law or policy, and now it hardly pays a true sportsman to go there for enjoyment.

In 1872 I camped two months on its banks, had three large wall tents full of guests most of the time, and rarely did I ever go over a quarter of a mile from camp to catch all required for my table.

Now, to make the same catch, miles have to be waded over, and the stream whipped till one's arm aches, even with an eight ounce rod, such as I always use.

But enough grumbling: if it does a little good and shames some of the inhuman fellows who ape the name of sportsman, I shall be gratified.

"NEED BUSTLINE."

NEW JERSEY.—At the last meeting of the West Jersey Game Protective Association, J. Howard Willets was elected Pres.; George E. Taylor, Treas.; R. T. Miller, Sec. The meeting took active measures toward changing the time for shooting reed birds from the 15th of August to the old time, the 1st of September. During the past year there have been placed by the society 2,200 black bass and 1,400 quail. An appropriation of \$1,000 was made for the further introduction of quail, and a bounty of twenty-five cents is to be paid on foxes and hawks. The police expenses of the year have been \$584.65.

A NEW GAME CLUB.—A number of gentlemen residing in Hackensack, N. J., met at the residence of J. J. Berry, a few days ago and organized a society for the protection of game, to be called the "Bergen County Society for the Protection of Game and Fish." The following were the officers elected: Wakeman Holberton, Pres.; W. A. Linn, Sec.; J. J. Berry, Treas. It is the intention of the society to prosecute all offenders and also to indulge somewhat in glass ball and rifle practice.

ILLEGAL FISHERMEN PUNISHED IN OHIO.—Cincinnati, Sept. 21.—A case has just been disposed of before one of our courts which is gratifying to lovers of game and fish protection. The defendants, Debot Rinkles, V. and Jacob Winings, were farmers living near Barnesburg, Hamilton County, and were indicted for illegally fishing by seining, in the waters of the Big Miami, on July 24, 1877. The parties plead guilty, pleading in their reply that they were merely fishing for their own amusement, and not for profit. The court caused the law to be read to them, and in passing sentence, remarked that the object of the law was a very salutary one. It was to protect fish from being destroyed with seine or net, or in any manner that by hook and line, the object being to give fish an equal chance with the angler. Reference was made to the propriety of the formation of Associations for the protection of game and fish, and the court stated that, as the parties had not in this case caught the fish for profit, and had pleaded guilty, the sentence would be the minimum one. They were then fined \$10 each and costs. Several other parties who have been operating on the same stream and also depopulating the waters of the Little Miami, have been spotted, and, if nothing happens, will be prosecuted. May the good work go on, we say, and these evil doers be brought up with a round turn. R. E. DECAIGNE.

The shooting of game birds is also restricted to October, November and December, and the breaking of the law entails a fine of \$25 a bird. To show our appreciation of the last acts of the Legislature, the club of this city has gone energetically to work, and last week captured, tried and convicted a number of parties.

At a meeting of the club in the spring, it was decided that posters containing the essential features of the law should be sown broadcast throughout the eastern portion of the State where no game clubs are known to exist, so that no one might fail to observe the law through ignorance, and it may be said here that one of the parties who had just been heavily fined for breaking the law at Ashford had one of these very posters at his house. These notices were sent to every town in Hartford, Windham and Tolland counties, and to most of those in Middlesex county. A reward of ten dollars was offered for such evidence as would produce conviction of any one violating the law. Soon letters began to arrive, stating that certain parties were infringing the law, but in each case the witnesses stated that they were so fearful of having their barns burned or their cattle or horses maimed or killed, if known to have given this information, that they were unwilling to aid in convicting the offender, or even to have their names mentioned in connection with it. They begged the club to send a reliable detective for the purpose. This was accordingly done, and as a result of his operations, three of the most notorious of these fellows have been convicted and heavily fined during the past week, and the club has information of eight or ten more who will be prosecuted during the coming week and who are certain to be convicted. It is evident that the game laws can be enforced if earnest efforts are made to do so. Of course all this requires a liberal outlay of money, and any persons throughout the State who may feel inclined to aid the work can do so by becoming members of the club and paying the annual fee of five dollars. It is believed that a strong central organization, by a liberal use of detectives, can accomplish more than scattered clubs of few members in various parts of the State. If these marauders can once be convinced that there exists a determination to enforce the law by those who are able to do it, they will cease to become law breakers, simply because they will find the amount of fines which they may be compelled to pay will far exceed any probable profit which they may make from the sale of their birds. None of these men are true sportsmen, but most of them are hired by parties to procure game for the Boston and New York markets.

The Hartford Game Club is an organization composed of gentlemen, well known in the highest circles of society in this city and vicinity, members of the law and medical profession, together with our honored Governor, being of the number. These gentlemen are fond of a day's sport with rod and gun and are in favor of such laws as shall afford to all the privilege of taking fish and game in their proper seasons, and at the same time protect them from being killed or captured during their breeding period. Their efforts were first directed toward securing suitable legislation, and in consequence it is believed that the statutes in reference to fish and game in Connecticut are better adapted to the purpose than those of any other New England State. But this is not sufficient. Some one must be on the look-out to see that these laws are enforced; and "what is everybody's business is nobody's business," so the club think they have made a dash in the right direction, and desire the co-operation of all true sportsmen. The enthusiastic meeting of the club held last Friday night, presided over by our general President, Mr. Lyman B. Jewell, showed the interest taken in the work, and the money pledged to carry out the laws their sincere devotion to the cause. T. S. S.

ACTIVITY OF SUPERVISORS.—The current number of the *Fur, Fish and Feather* takes us to task for informing a correspondent that the supervisors have the right to lengthen the close season for game. He says:

"We have carefully examined the statutes of this State (N. Y.), from the present to many years back, and the only shadow of authority we can find the supervisors have for altering the close seasons for game and fish is derived from Section 16, chap. 453, passed June 5th, 1875, which empowers them

To provide for the protection and preservation, subject to the laws of this State, of game animals and birds, and fish and shell-fish in all waters within the territorial jurisdiction of the county, and to prescribe and enforce the collection of penalties for the violation of any laws or regulations they may make pursuant to the provisions of this subdivision.

The supervisors in various counties of New York State have been in the habit of making local laws regulating the taking of game and fish. In April last the Court of Appeals decided in favor of the local authorities, affirming the right of the supervisors to legislate in these premises. The case in which the decision was given is that of Hallock against Dominy and Osborn (the latter two Easthampton Bay constables), for false imprisonment. At the hearing of the case at the Suffolk County Circuit, before Judge Pratt, the plaintiff was nonsuited. This decision was reversed by the General Term, and a new trial ordered. The court of last resort reversed the General Term decision and sustained Judge Pratt; and this case decided a number of others pending on the same state of facts.

THE NEW YORK STATE PARK.—The project of converting the Adirondack region into a State Park was, in 1873, considered by the Legislature. After some preliminary proceedings the matter was however dropped, and has not since been carried through. This plan, in its connection with the wholesale destruction of game in the North Woods, has been recently discussed in an able editorial in the *Utica Morning Herald*, which called out the subjoined letter from Mr. P. H. Agan, whose views are entitled to the serious consideration of all interested in this scheme. We have before urged in these

the afternoon he was arrested by a constable, who had been kept in waiting during the day, and taken before a neighboring justice on the complaint of Jas. M. Jarvis, secretary of the association, which alleged that Mr. Gee "wrongfully withheld from that body its property, to wit: a badge."

The court-room scene was a renewal of the day's struggle, a dozen or more National Guardsmen holding a wordy war with the Squire. The trophy was finally forcibly taken by the association, and Lieut. Gee entered a charge of disorderly conduct against Major Coburn, who he said had threatened to knock him down. It was a disgraceful scene, and the American Rifle Association might as well pay its debts if it can, and wind up its affairs, so far as any further support from metropolitan guardsmen may be expected.

II. In conjunction with the evenly practice at the Creedmoor range on Friday last, a strange performance was witnessed on the Creedmoor lawn. Where but a few days before the crack long-range teams of the world had been battling, a general pigeon batman and beer-drinking tournament was in progress.

The beer-seller of the range had taken advantage of the lax oversight of the Directors to invite down a few dozen of his German friends. Two hundred pigeons, mostly squabs, were also provided, and for several hours the banging was lively, and exceedingly promiscuous as well. Often a half dozen shots failed to bring down the birds, and not infrequently the pigeons were knocked over as they walked out of the traps, without spreading a wing. Altogether it was a humiliating exhibition, and the more so as it was totally out of place at Creedmoor, which was paid for in large part with State funds, on the distinct understanding that it was to be kept and occupied for the encouragement of skill in rifle shooting, and not for beer-drinking picnics; as one Director put it when informed of the occurrence: "We may soon expect to have a little cock fighting or dog matching, and other exhibitions of what some would call sport if this thing is to be allowed to go on."

III. The Dramatic News, having in some way been misinformed that the members of the American team had received compensation for their attendance at Gilmore's Garden at the presentation of the trophy, takes them to task for such petty means of money-getting, and Gen. Dakin on being informed of it dashes out with the following:

To the Editor of the Forest and Stream:

SIR—A gentleman has this evening handed me an article clipped from a weekly New York paper, in which it is stated "the American team was paid \$1,000 by the management to secure its presence" at Gilmore's garden on Tuesday night of last week. The person who makes such a statement I pronounce a base liar. That "they refused to attend unless half the gross receipts of the performance, after expenses were paid them," is another lie, and I take the opportunity to brand the author of the article referred to as a coward.

THOMAS S. DAKIN, Capt. of the American Team.

BROOKLYN, Sept. 27, 1877.

The fact is that the managers of Gilmore's Garden have paid into the treasury of the National Rifle Association a share of the net profits of the evening on which the prizes were presented in the Garden. This was done both in 1875 and 1876, and is considered by the officers of the association a better way of providing the necessary ways and means for their work than voluntary and uncertain subscriptions. Judge Gildersleeve, who was chairman of a committee of the association intrusted to arrange for a suitable place wherein to make the presentations, had offers this year of Stenway and Chickering halls rent free, but after figuring up the cost it was concluded to accept Mr. Gilmore's offer, as more money could be secured in that way for the association.

THE LESSON OF CREEDMOOR.—The tenacity with which Englishmen have adhered to the muzzle-loading rifle must weaken in the face of the pregnant lessons which their matches with the Americans have brought out. The superiority of the breech-loading arm has been very effectually demonstrated. Mr. Bydenburgh, with a breech-loading Remington, in two days' shooting made four hundred and twenty-nine points out of a possible four hundred and fifty, thus making the highest record ever attained by any rifleman in the world. The majority of ninety-two points over the highest score ever reached by the English team is also a speaking fact. It is evident that a rifle which opens at the breech, giving a clear sight through the barrel, is not only more easily cleaned, but is far more reliable in the ability which the marksman has in removing any dirt, etc. It is probable that a close examination of the British rifles would have disclosed fouling at the breech. It is a fallacy to suppose that accurate shooting can be obtained with a dirty barrel—the grooves being very shallow and the bullets very hard—the least accumulation of dirt would throw the bullets out of a direct line of fire. Englishmen, Irishmen, Scotchmen, Australians and Canadians, after successive defeats, are beginning to realize that it is the weapon, and not the men, which overcame them. Probably ere another international match shall take place these marksmen will all supply themselves with Remingtons. Since the international team match, an individual match, composed of the leading riflemen of the world, to the number of seventy-eight, assembled at Creedmoor, each standing on his own merits, without the aid of team organization and coaching. This really determined the relative merits of the marksmen, those who were at the front in teams were far from leaders when withdrawn from team discipline. The first fire in the list of winners used Remington breech-loaders, as also did the seventh and eighth. In all the matches that took place at the fall meeting the winners used the Remington. To illustrate the superiority of the breech-loading arm we append the scores of the winners who were armed with Remingtons.

Table with 4 columns: Name, 800 yds., 900 yds., 1000 yds., Total. Includes N Washburne, C F Bydenburgh, J Lamb, Jr., O. Auld, Dudley Selph, G H Gray, Gen T S Dakin.

—National Banker.

—Co. A, Twenty-third Regiment, have entered for the Nevada Badge; also, Co. I, Seventh N. Y.

—The Volunteer Service Gazette, of Great Britain, compliments us by quoting at length an account of the British team reception and says:

The reception of the Imperial British Team at New York was of the cordial kind which might have been anticipated, and the account of their arrival, which we print in another column, will be read with pleasure. Perhaps it deals with individuals in a manner—though familiar to our friends over the Atlantic—not much acquired here yet; but we cannot fail to recognize the portraits which are given, in no unkind spirit, of some of our representatives.

THE CREEDMOOR PROGRAMME FOR OCTOBER.

During the month of October the range will be thrown open on Mondays, Tuesdays, Thursdays and Fridays for practice, and on the regular military days members of the N. G. S. N. Y., in uniform, may practice without charge. Wednesdays and Saturdays will be occupied with the all-comers' matches as follows:

Wednesday, 8.—Practice.

Saturday, 6.—At 10:30 A. M., seventh competition for Sharps' Rifle Company's prize of \$200 in gold. National Rifle Association. Open to all comers. Rifles, any. Entrance fee, \$1. Distances, 500, 700 and 1,000 yards, 15 shots at each distance. No sighting shots or previous practice allowed on the day of the match. No "coaching" allowed by competitors or outsiders, and no person to be allowed to assist any competitor by the use of a glass, or by spotting any competitor's shots. Any competitor giving or receiving any information shall forfeit all prizes he may win on that day. The winner must lead all competitors at each of the three distances at one competition. One quarter of the entrance money to be awarded to the competitor making the highest aggregate score, unless he wins the prize, in which case the next highest score will take it. One quarter of the entrance money to be added to the principal prize continuously until finally won. The match will not be commenced unless less than ten competitors. At 3 P. M., Seventh Regiment Rifle Club, competition for Diamond Badge.

Wednesday, 10.—At 3 P. M., fourth competition for a Ballard Mid-Range Rifle, N. R. A. Open to all comers. Distance 200 yds. Fifteen shots, without cleaning and without sighting shots. Position, standing. Any rifle. Entrance fee 50 cents. Highest aggregate score to take one quarter of the entrance money; the next highest score, one-sixth; and the third highest, one-twelfth. To be won three times (not necessarily consecutive) before becoming the personal property of the winner.

Saturday, 13.—At 10:30 A. M., fifth competition for a Parker Shot-gun. Open to all members N. R. A. Rifle and position, any within the rules; distance, 1,000 yards; rounds, thirty, and two sighting shots. Entrance fee, \$1. Prize to become the property of the competitors winning it three times, not necessarily consecutive. At 3 P. M., second competition for the Marksman's Badge, conditions same as announced under date Oct. 31. Seventh Regiment Rifle Club competition for Remington Special Military Rifle.

Wednesday, 17.—At 3 P. M., second competition for the Wylie Badge, a gold badge, presented by Brig-Gen. Daniel D. Wylie. Open to members N. R. A., or N. G. S. N. Y. Weapon, any military rifle. Distances, 300 and 500 yards. Position, standing at each distance. Rounds, seven at each distance, without sighting shots. Cleaning allowed only between distances. Entrance fee, 50 cents. Badge to be won three times (not necessarily consecutive) before becoming personal property of the winner. One-fourth of the entrance money in each competition to be awarded the competitor making the second highest aggregate score. At 3 P. M., Seventh Regiment Rifle Club. Competition for the Rifles and Sharps' Special Military Rifle. At 3 P. M., New York Stock Exchange Rifle Club. Competition for the Weershofter Prize and bronze N. R. A. Medal.

Saturday, 20.—At 2:30 P. M., fifth competition for the Turf, Field and Farm Challenge Badge. Open to all comers N. R. A., except dual winners of the two previous badges. Distance, 200 yards. Position, standing. Weapon, any breech-loading rifle within the rules. Rounds, ten, with privilege of two sighting shots. Entrance fee, 50 cents. To be won three times (not necessarily consecutive) before becoming the personal property of the winner. Seventh Regiment Rifle Club competition for the Shells and Sharps' Special Military Rifle. At 3:30 P. M., first competition for a new Spirit of the Times Medal, presented by the editor of the Spirit of the Times newspaper. Open to all comers. Distance, 300 yards. Position, standing. Rifle, any. Rounds, ten, with privilege of two sighting shots. Entrance fee, 50 cents. To be won three times (not necessarily consecutive) before becoming the personal property of the winner. At 3 P. M., Seventh Regiment Rifle Club competition for Sharps Special Military Rifle.

Wednesday, 24.—At 3 P. M., Seventh Regiment Medals.

Saturday, 27.—At 10:30 A. M., competition for the Remington Prize, \$300 in gold. Open to all comers. Rifles, any Remington breech-loader within the rules of the N. R. A. Must be loaded at the breech, with cartridges as furnished from the factory of E. Remington & Sons, which will be issued by the Superintendent of the Range to each competitor, at firing points, in sealed packages at \$1 for fifty rounds. All shells to be returned. Distances, 100 and 1,000 yards. Rounds, twenty at each distance. Position, any without artificial rest. Highest aggregate in each competition to win. Ties to be decided according to the rules. No coaching, spotter, nor exchanging or giving information allowed. No previous practice on day of match. No sighting shots. Entrance fee, \$2. The prize must be won three times (not necessarily consecutive) before becoming the property of the winner. One-half of the entrance money in each competition to be divided, two-thirds being given to the highest score, and one-third to the second man. Not less than ten entries to constitute a match. At 3 P. M., Seventh Regiment Rifle Club competition for the Shells and Remington Special Military Rifle.

Wednesday, 31.—At 3 P. M., third competition for the Marksman's Badge (a fac-simile in gold of the Marksman's Badge, issued by the State), presented by the General Inspector of Rifle Practice, S. N. Y. Open to all members N. R. A., and all members N. G. S. N. Y., in uniform. Distances, 200 and 500 yards. Five shots and two sighting shots at each distance. Weapon, Remington rifle, New York State Model. Position, standing at 200; any, with head toward the target, at 500 yards. Entrance fee, 50 cents. The badge to be awarded to the competitor winning it three times (not necessarily consecutive). Twenty-five per cent. of the entrance money to be awarded the competitor making the highest aggregate score, fifteen per cent. to the one making the second highest, and ten per cent. to the one making the third highest aggregate score. Members of the National Guard may, with the consent of their Inspector of Rifle Practice, count their scores made in this match as a qualification for the Marksman's Badge issued by the State. Members of Cavalry Organizations will be permitted to compete in this match, under the same conditions as are required of them to qualify for N. Y. State Marksman's Badge.

CREEDMOOR, Sept. 29.—The Remington \$500 cash prize went begging again on Saturday last, and ten men could not be found willing to waste their time shooting factory ammunition, and making poor scores, though fully twenty long-range men were busy at the long ranges shooting for their own amusement and drill. In the afternoon the Turf, Field and Farm match was called, and forty-six contestants responded, making an interesting match. Mr. Lewis Cass, a Seventh Regiment man, carried off top place with 43 in the possible 50, at 200 yards, the full scores running:

Table with 4 columns: Name, 50 yds., 100 yds., 200 yds., Total. Includes Lewis Cass, C E Bydenburgh, D Chalmers, Jr., A F Flint, W M Farrow, A Stube.

Table with 4 columns: Name, 400 yds., 500 yds., 600 yds., Total. Includes T W Linton, F Harper, R W Day, S Sargeant, George W Wingate, G L Morse, J Le Boulevard, John Cavanaugh, J L Paulding, D Banks, J Grohman, J Price, E W Price, H W Gourley, G Williams, D G Finney, C H Eagle, P Mc Morrow, F H Holton, A Anderson, J Carman, W W Cochran, Jr.

Later in the day a new competition was inaugurated for gold marksman's badge, to be shot for with five shots out at 200 and 500 yards, with the State model rifle. Fifty contestants entered. A. B. Van Heusen, of the Twelfth Regiment, with a score of 21 at 200 yards, and five bull's-eyes 500, holding first place. The totals of those getting over per cent. ran:

Table with 4 columns: Name, 400 yds., 500 yds., 600 yds., Total. Includes A B Van Heusen, J L Price, S F Kneeland, G E Pasco, C H Eagle, F W Price, J W Gardner, E J Anderson, W H Cochran, Jr., N D Ward, G L Morse, P C Melrose, J S Putnam, F H Holton, G B Cobb, W C Clark.

CREEDMOOR, JR. 100 YARD RANGE.—Saturday, Sept. 29th, a match was shot between the Western Union Telegraph operators of New York and Brooklyn; off-hand, 15 shots each:

Table with 4 columns: Name, New York, Brooklyn, Total. Includes Cushing, Mitchell, Shellen, Ritter, Dennis, Total.

A prize of \$10 for the highest score was awarded to W Ingles.

THE SIXTH DIVISION N. G. S. N. Y. MEETING.—A programme for the annual meeting of the Sixth Division Rifle Association show eight matches. All of them confined local candidates. The cutting down of all-comers contest a single match may be policy, and should certainly induce rifle shooters thereabouts to come out in good force. The programme includes:

Competition I.—Directors' match. Open only to directors of Sixth Division Rifle Association. Distance, 100 and 200 yards. For Directors' gold badge, value \$25.

Competition II.—Short range match. Open to all comers. Distance 200 yards. Prize, \$15, \$10, \$5, \$3.

Competition III.—Sixth Division N. G. match. Open to teams from each regiment, battalion or separate company of infantry. Each troop of cavalry and each battery of artillery in the Sixth Division. Each organization may send more than one team if it chooses, and entitled to as many prizes as it wins. Weapon, Remington rifle carbine, State model. Distances for teams using muskets, 200 and 500 yards; for teams using carbines, 200 and 500 yards with short ammunition; or 200 and 500 yards with long ammunition. Five shots at distance, with two sighting shots. Positions, standing at 200; kneeling at 300 or 500 yards; any at 500 yards. Entrance fee, \$1 each man. First prize to the team making the highest aggregate score—the Sixth Division Trophy, value \$100.

Competition IV.—Cavalry and Artillery, Sixth Division National Match. Open to teams of five from any troop of cavalry battery of artillery in the Sixth Division. Each company may send one or more teams, at its option, and be entitled to all the prizes. Distances, 200 and 500 yards to teams using carbines, and 200 and 500 yards to teams using muskets. Entrance fee, \$1 for each man. Prizes.

Competition V.—The Dumbag match. Open to all members of the National Guard in the Sixth Division.

Competition VI.—Officers' match, open to all commissioned officers in the Division. Distance, 200 yards. First prize, to the highest individual score, an officer's gold badge worth \$50, to be won at three regular meetings of the Sixth Division Rifle Association, to become the property of the winner, and cash \$10. Value, \$70.

Competition VII.—Fifty-first Regiment Officers' Badge. Open to commissioned officers in the Fifty-first Regiment, officers to appear full uniform, and to have been commissioned previous to Oct. 1, 1877.

Competition VIII.—Long-range match. Open to all residents of Sixth Division District, comprising the Counties of Broome, Cayuga, Cortland, Otsego, Oneida, Onondaga, Oswego, Seneca, Tompkins, Tioga, Chenango and Madison. Weapon, any rifle. Distances, 200 and 1,000 yards. Rounds, ten at each distance, with two sighting shots at each distance. Position, any. Entrance fee, \$1.50. First prize an elegant gold badge, presented to the Association by Lieut-Gen. George N. Cronse, valued at \$50, to be competed for at each regular meeting, and held permanently by the winner of three contests.

CONNECTICUT—Hartford, Sept. 24.—There was a full attendance at the Willowbrook rifle range on Saturday. N. Washburn won the long-range badge for the third successive time and becomes its owner. The leading scores possible 150 were:

Table with 4 columns: Name, 800 yds., 900 yds., 1000 yds., Total. Includes N Washburn, Mr King, New Britain, F Wessel, New Britain, W H Hubbard, Hartford, Wm Parker, New Britain, J R Hawley, Hartford, Orange Field, Middletown, Geo W Hunt, Middletown, Major Graham, Middletown.

Messrs. Coffin, of Middletown; Yale, of Hartford; W Bridge, of Manchester, and Gunn, of Bridgeport, did not complete their scores.

The scores at the 500 yards mid-range match (ten shots, a possible 50), were Mr. Gunn, 48; Major Graham, 47; Wessel, 47; Mr. Woodbridge, 46; Mr. Parker, 46; Mr. 45.

THE CONNECTICUT RIFLE ASSOCIATION.—The annual contest for the T. Steele & Son silver cup will probably take place at the Willowbrook range, Berlin, on Saturday, October 13th.

Game Bag and Gun.

GAME IN SEASON IN OCTOBER.

- Moose, Alces maculosus. Elk or wapiti, Cervus canadensis. Hares, brown and gray. Wild Turkey, Meleagris gallopavo.

NEW YORK.—Hornellsville.—A soldiers' field day and target shoot was held at Jones' Trotting Park September 26, and drew together an interested crowd to watch the contest for the championship of Western New York in target shooting.

Table with columns for ELKHORN TEAM, 200 YARDS, and 500 YARDS. Lists names like Bannell, Couch, Worden, Rutan, Bush and their scores.

—A long-range club has been organized at Madison, N. J., and a 1,000 yards range laid out.

ELIZABETHTOWN, N. J., Saturday, Sept. 22.—Singer rifle range, 200 yards.

Table with columns for SINGER RIFLE ASSOCIATION and RAILWAY RIFLE AND SPORTING CLUB. Lists names like Johnson, C., McLaughlin, Leitz, Johnson, F., Campbell, Schaeffer, Stevens, Carter and their scores.

MICHIGAN.—The Glen-Alger Rifle Association, of Harrisville, Mich., had a shooting tournament on the 14th ult. for a silver cup. The scores stood:

Table listing names and scores for the Michigan tournament, including L. A. Colwell, H. W. Lyman, G. W. Colwell, Geo. Buck, J. C. Gram, L. Boardman, H. H. Noyes, J. C. Evans, A. Noyes, J. W. Pasque, J. W. Fairchild, Geo. Storms, and Thos. Macklin.

GUNNERY EXPERIMENT.—Did you ever hear of the small cannon experiment made before the Abyssinian war by the English War Office? The facts are as follows: The Commander-in-Chief thought that a small battery could be carried and fired on the backs of camels.

—Shakespeare says, "Care is no cure, but rather corrosive, for things that are not to be remedied." We cannot associate care and corrosion, however, with B. T. Babbitt's Toilet Soap, for it saves care and is deliciously emollient.

BRainerd, Minn., Sept. 29, 1897.—Please stop my ad. I have not time to answer half the letters that have poured in upon me regarding the setter dog I advertised.

The above curt notice is from the gentleman who is popularly known as the "Wild Rice Man," and this incidentally puts us in mind that the two dozen inquirers for wild rice, whose letters we have, will do well to address him at once at the above address.

us this time, giving us only a thunder shower with cooler weather and strong nor'-wester per 48 hours. Woodcock are things we read of. There are a few scattering snipe, one gentleman killed two last Friday afternoon on Miles River near Beverly.

Rockport, Sept. 28.—George Parsons shot the other day, near the village, a rough-legged hawk, a bird rarely seen in this locality.

Westport Harbor.—Woodcock and partridges rather scarce, but large coveys of quails are numerous, and they promise excellent quail-shooting this fall.

Springfield, Oct. 1.—Ruffed grouse are very plenty here, owing to the almost entire absence of snafing. Quail are fairly plenty. Woodcock scarce.

Salem, Oct. 1.—Nothing special this week except two pigeon shoots. Plaster balls as a substitute for glass ones are a failure with our shooters.

NEW HAMPSHIRE.—South Tamworth, Sept. 21.—The shooting is very fair here this fall. I was out a few hours this morning, and succeeded in bagging three ruffed grouse and a few pigeons.

NEW YORK.—Brushton, Franklin Co., Oct. 1.—This place is on the Ogdensburg Railroad near the northern part of the Adirondack Mountains, among which is Blue Mountain, Cavanaugh Pond, Long Pond, Trout Pond, the 16-mile level on the St. Regis River, all which are as good localities for deer hunting, if not the best, in the Adirondacks.

AN AUTHOR'S ENCOUNTER WITH A CATAMOUNT.—Mr. Wallace Bruce, the distinguished author and lecturer, and a companion recently encountered a large catamount in the Adirondacks.

DEATH OF AN ADIRONDAK GUIDE.—Scores of readers will learn with regret of the death of John Cheney, the oldest, most widely known, and generally beloved of all the guides, hunters and hosts of the North Woods.

NEW JERSEY.—Morristown, Sept. 29.—"Lank Quimby" and a party of hunters have started for a deer hunt in Pike county, Penn.

Barnegat Inlet, Oct. 2.—Black ducks increasing. Sprigtails in large flocks made their appearance on Sunday.

PENNSYLVANIA.—St. Marys, Sept. 23.—Wild pigeons are abundant in the vicinity.

Huntingdon.—The sportsmen of the vicinity are to have a game association.

Leesburg, Sept. 26.—Doves, bull-bats and occasionally ducks are being killed.

FROM THE "TAR-HEEL" STATE.—Lenoire, N. C., Sept. 22.—The outlook for sport herabouts is of doubtful cast. Our wing shooting commenced (by law) on Oct. 1, but from last winter's dreadful severity, and other causes unknown, game is scarce.

The long-bills are going to Florida, Louisiana, Alabama and Southern Mississippi. No sport from them can we have until February and March, when, too fat for long journeys, they may stop herabouts for a short time, one pair in ten thousand possibly remaining to breed here and stay during the summer.

NEW BERNE, Sept. 29.—Bears are unusually numerous in the vicinity.

VIRGINIA.—Harrisonburg, Sept. 28.—Nimrod Dove and John May, who reside on Shenandoah Mountain, one day last week, while shooting squirrels, heard a hog squeal for life. They advanced in the direction of the noise and saw a bear sitting on a hog, the bear looking strange at the new comers.

KENTUCKY.—Louisville, Sept. 29.—H. M. Griswold, J. V. Cowling, and J. W. Short leave Monday night on their hunting expedition to the Kankakee, where they will be joined by Dr. Henry Griswold, of New York.

"Bay birds" generally, including various species of plover, sandpiper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets, etc., coming under the group Limosa or Shore Birds.

The frequent alteration of game laws makes such confusion that sportsmen are kept quite in the dark as to when shooting on various kinds of game is permitted. We therefore append the following table for reference:

Table with columns for States, Pinnated Grouse, Ruffed Grouse, Quail, and Woodcock. Lists hunting seasons for various states like Ill., Ind., Iowa, Minn., Wis., Neb., and Kans.

"RECAPIT" TO "EQUITY."—I am very sorry that in your paper of Sept. 27 "Equity" takes my opinions so much to heart. He very evidently misunderstands me from beginning to end. I do not write in the interest of Messrs. Dougall or Tolley. Their work needs no puffing at my hands.

When I spoke of the impossibility of building a gun to sell here at a profit for less than \$100 currency, I spoke of fine guns. The coarse work may be just as reliable, but you cannot be so sure of it. I have never said that trade guns cannot be made good; I only claim that out of a case of perhaps hundreds you may get one thorough good gun, and you may not.

CONVERTING MUZZLE-LOADERS.—A number of cases have occurred lately where owners of goodish muzzle guns, desiring to throw them away, have had them altered, and have found to their sorrow that the muzzle guns which can be converted to a safe, effective breech loader, are very few in number.

to express the fact that they have been lamentably late in learning that in the construction of a fine and expensive tool there is and must be unity of design, a sole end kept always in view during the building of it. Seldom is it, I say, that such a tool can be torn to pieces and a new tool built of the debris which will do the work, e. g., of the modern choked breech-loader. It is a pity that so many fine muzzle guns should now be so completely shelved; but it is the truth that they are almost cast into outer darkness, save for the good they've done in days of yore. And they do not sell. I speak of good goods in the hands of individuals, because, so wonderful have been the advances since the Field Trial days of 1858-1866, that the best muzzle gun that Pape won with in the latter year is now easily distanced, so far as concerns the essential matter of killing qualities by a score of \$50 breech-loaders.

MASSACHUSETTS.—Salem, Sept. 24.—There has been quite a flight of teal, principally blue-winged, through our county the past week, and some of the gunners have done finely. I shot a blue-wing with a fresh water clam fast to one of its feet; the bird attracted my attention while in the air by its singular appearance. This same teal flew a good hundred yards after I shot her, and when picked up had only a wing broken close to the body. The bird evidently kept up until the bone became displaced when it had to drop. I took a trip to West Newburg, where I found a fine rail (P. carolinus). Newburyport Commons are very dry, and all our grounds are much in need of rain. Our usual "line gale" went back on

River. The Louisville Gun Club will keep open house during the bench show and tournament, and the hospitalities of the rooms are tendered all visiting sportsmen. Jack snipe are shot at the falls.

TENNESSEE—Nashville, Sept. 20.—Cheering reports come from Humphrey's County concerning attractions for those fond of sport. Thousands of quail can be found there, and the woods are literally alive with squirrels; wild turkeys are also abundant, and occasionally a deer can be found.

The number of squirrels in Davidson County this fall is much larger than for years past. Partridges can be found in fair numbers, and altogether plenty of fun can be experienced by the devotees of Nimrod.

The limits of the game law expired on the 15th inst., and sportsmen are now busily engaged in making things uncomfortable for game of all kinds.

LOUISIANA.—Teal ducks and many other kinds of game are now to be shot at Miller's Bayou and Chief Menteur.

TEXAS—Galveston, Sept. 24.—The coast is just alive with shore birds. Teal duck in abundance. Chickens are in fine condition, and afford good sport. B. R. B.

ARKANSAS—South Bend, Sept. 25.—The large game, such as deer, bear, turkey, etc., are numerous here, and will give sportsmen fine and exciting sport. Game birds are scarce; grouse were nearly exterminated by pot-hunters during the heavy snows of last winter; there are some quail and a few waders. This would be a fine game region if we had any game laws, but we have none, and the game is slaughtered in and out of season. G. W. C.

MICHIGAN—Port Huron, Sept. 26.—Recently two men captured a large white pelican at the head of Black River which measured seven feet across the wings. It has a bill seventeen inches long. A blue heron was shot on Stock's Creek, two miles from the city, which measured from the tip of his bill to his toes four feet eleven and one half inches, and six feet four inches from wing tip to wing tip. QUIN.

INDIANA—Indianapolis, Sept. 22.—There is too much quail shooting, and somebody needs to be made an example of.

Southern Indiana papers announce a great migration of squirrels from Kentucky. They are daily seen swimming the river in immense numbers, and spread northward on landings. It does not seem that they have yet commenced depredations upon the growing crops, but everything in the shape of mast is rapidly melting away; hickory, beech, and all kinds of oak are stripped clean of their fruit. As to flesh the little animals seem to be in good condition, and every old rusty gun in the country is brought into requisition. In every neighborhood the incessant bang of firearms, from early morn till dusky eve, reminds one that thousands of the little creatures are brought down every day; and yet every day they increase in numbers. Numbers of them are killed with clubs and sticks at the water's edge, while attempting to land on the Indiana shore. The last heira of squirrels occurred in 1833. On that occasion the city of New Albany was overrun with them, and hundreds were killed in the streets.—Saturday Herald.

COLORADO—Denver.—A party consisting of Col. J. W. Hall, Capt. H. H. King and Hon. C. W. Wright, have been on a bear hunt in the Yampah River country of Rout County.

THE CZAR'S BEAR PRESERVES.—A correspondent of the San Francisco Chronicle writes of the Czar's game preserves at Gatchina:

We went our steps toward the deer and elk park, which is inclosed in order to keep the wolves from preying upon the young. The animals here are quite tame, and evidently are but seldom hunted. My guide informed me that the emperor preferred the more exciting pursuit of bears, which are very numerous in these forests, and must not be shot except by highest permission. It was not long before we caught sight of one of the bruin family in a little clearing, where some trees had been felled and cut into firewood, a huge stack of which had been selected by his bearship as a convenient spot to sun himself. On our approach the animal, one of the brown, curly-haired kind, sat up and sniffed the air, and then, evidently put out at being disturbed, he growled crossly and began to move uneasily about, knocking the loose sticks of wood to the ground right and left. I was for moving on, but Fedka, the guide, assured me there was no danger, as the bears of Gatchina are abundantly fed, and have never been known to attack a man unless driven to the wall.

As we turned away to let bruin continue his siesta, Fedka related to us an incident which occurred at one of the Emperor's bear hunts some years ago. The Spanish Ambassador to Russia at that time was the Duke of Ossuna, a very pompous, conceited graudee, well versed in all the rules of court etiquette, but a small, weazened, dried-up man, of no physical courage and but an indifferent sportsman. The Emperor had invited him to one of his hunts at Gatchina, an honor which could not be declined, and muffled up in costly haberdashery the Duke set out with the imperial party and was consigned to a post of honor, a tree next to the one behind which the Czar awaited the coming of such game as the huntsmen might drive up. A huge bear made his appearance, his temper somewhat riled by the unwelcome noise of dogs and horns behind him, and the Emperor made a sign to the Ambassador to shoot. The duke bowed deeply, and declared his unwillingness to shoot before his imperial host. The Emperor urged him to disregard etiquette for once, but the little graudee continued his profuse protestations until the bear had drawn uncomformably close, and by his forbidding aspect caused the Spaniard to shake with fear and forget his polite utterings. A shot from the Emperor, who was laughing in his sleeve, interrupted the animal's progress, but the victim of the joke, bathed in perspiration, fell fainting upon the snow, and had to be taken to the palace on a stretcher.

FRANCE—Paris, Sept. 15.—The sportsmen are not very eager for opening the season; the chief game in France at present is politics, and men cannot cultivate two passions at once. Generally at this period, the streets were thronged with "bagnens," pulling along strapping, sporting dogs, which had the air of anticipating martyrdom, and gazed wildly about seemingly in search of some members of the society for the protection of animals, but we have none of these spectacles at present.

PRESERVATION OF GAME.—Game of all kinds, birds, rabbits, or deer, can be kept sweet a long time by putting finely pulverized charcoal in a thin muslin bag, and placing it inside the game. Change the charcoal every day. It is excellent to keep any meat, fish or fowl, pure and sweet. Wash clean before cooking.

PIGEON MATCHES.

MAINE.—Portland, Sept. 29, 1877.—The annual shoot for the Maine State Championship and Diamond Badge came off on Little Chebeague Island, Casco Bay, on Sept. 27 and 28. The Maine and Forest City clubs of Portland, and the Androsoggin Club of Lewiston participating. Terms, 15 birds each, 21 yards rise, 80 yards boundary. The birds were mostly tame ones and strong flyers. The following is the score:

Table with columns for Club, Name, and Score. Includes Maine Club and Forest City Club.

Table with columns for Club, Name, and Score. Includes Androsoggin Club.

On ties of 13 Pomeroy won; ties of 12 Munson won; ties of 11 Dennis won; ties of 10 C. F. Nason won—Pomeroy of the Androsoggin winning the diamond badge, Munson and C. F. Nason of same club second and fourth prizes, and Dennis of the Forest City the third. Vid.

NEW JERSEY—Brighton Pigeon Club, Long Branch, Sept. 26.—Handicap sweepstakes: fifteen birds, five traps and 100 yards boundary, 1 1/2 ounces of shot; Hurlingham rules. Wm. Green, 25 yards, 13; Robert Hance, 25 yards, 12; Chas. Stiker, 23 yards, 11; Frank Price, 21 yards, 9; Jas. Addison, 21 yards, 9; Peter Morris, 18 yards, 8.

KENTUCKY—Louisville, Sept. 29.—Glass ball shoot at the gun club grounds.

Table with columns for Name, K'd., Tot., and Score. Includes J. Duff, M. Stewart, T. H. Hastings, J. M. Barbour, Dr. J. A. Bedford.

NEW JERSEY.—Glass ball shooting is fast superseding pigeon shooting as an amusement among the sportsmen of Sussex and Warren counties. The towns of Newton and Hackettstown have matches nearly every week, and a challenge badge has been provided for the champions.

LONG ISLAND.—Creedmoor, Sept. 25.—A match was shot between W. T. Cameron and H. N. Terrett, of Woodside, and A. and B. Hauts of Winfield; 15 single rises; Long Island rules:

Table with columns for Name, Score, and Result. Includes Cameron, Terrett, A. Hauts, B. Hauts.

The ties were shot off Sept. 29:

Table with columns for Name, Score, and Result. Includes A. Hauts, B. Hauts, Terrett, Cameron.

NEW YORK.—Long Island Shooting Club, Sept. 28.—The monthly contest of this club was shot at Dexter Park, Sept. 28. The conditions were: Seven birds each, 25 yards rise, 80 yards boundary, 1 1/2 oz. shot, Long Island Club rules. Ties shot off, three birds each.

Table with columns for Name, Score, and Result. Includes Henderson, Brown, Madison, Broadway, Miller.

THE EVENING.—Henderson.....1 0 1-2 Brown.....0 0 1-1 Same Day.—Contest for gun-cleaning case presented by Mr. S. Glover; 10 birds each, 25 yards rise, 80 yards boundary, 24 entries.

Table with columns for Name, Score, and Result. Includes Thomas, Yates, Wynne, Lamphier.

SAME DAY.—Match of ten birds each, 40 yards rise, 80 yards boundary, Long Island Club rules.

Table with columns for Name, Score, and Result. Includes A. Applegate, Atkins.

MASSACHUSETTS—Salem, Sept. 27.—Sweepstake match, nine birds each.

Table with columns for Name, Score, and Result. Includes W. Williams, Joe Loud, D. Waters.

Hornellsville, N. Y., Sept. 26.—There were three contests of trap shooting to-day, in which several of our citizens participated. The prizes were awarded as follows: First Contest—Jeffries first, Gardner second, Kennedy third. Second Contest—Jeffries first, Gardner second, Kennedy third. Third Contest—Gardner first, Kennedy second, Penwell third.

NOTICE TO SPORTSMEN.—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting.

P. O. Box 1,294.—Lodge. ABBEY & IBERIE, 38 Maiden Lane.

POUND-NETS IN LAKE ONTARIO.—A large company who have organized themselves into a firm, are daily netting and shipping to the New York market tons of fish. They have forty acres of pound-nets in the vicinity of Round Pond, and are rapidly extending their operations to all the bays and inlets along the lake shore. If there is no law which can reach these parties the matter should be brought before the next legislature, and suitable measures enacted.

A CANOE CRUISE IN VIRGINIA.

EDITOR FOREST AND STREAM:

We launched at Covington, on Jackson's River, 205 miles west of Richmond, near the summit of the mountains, on water over 1,200 feet above the sea. The stream is narrow and swift, with dashing rapids and cascades every few hundred yards. A good day's paddle carries the voyager to the Cowpasture's mouth, whence the stream takes the name of James. The entire route is through a most attractive region. The water is full of life, with a spice of danger all the way to Buchanan. From Buchanan to Lynchburg we had the canal and broad, deep, beautiful pools of the James River and Kanawha Canal, affording steady but pleasant paddling. From Lynchburg to Richmond the dams are very few—only five—and there is plenty of rapid water, with some falls that are more than lively. Balcyny Falls, five miles long, where the James bursts through the Blue Ridge, are enough to tax the nerve and skill of the best paddler. Thornhill's Falls, twenty-five miles below Lynchburg, a short stretch of swift water, terminating in a cascade of several feet, brought your correspondent to grief against an unseen rock in the tortuous channel, and on the leap of the fall, where the canoe broached to, broadside on, in a flash, and filled in a twinkling in a current so strong that a good half-hour's sturdy work—breast deep in the water, was necessary to work her off the rock to which she was pinned. The thorough wetting of canvas and baggage required a day in camp drying out. Below these falls and on to Richmond is beautiful water and finely cultivated country.

From Covington to Tye River is a constant stretch of incomparable mountain scenery. Clifton Forge—a grand arch of stone in relief on the mountain side, 1,000 feet high and one half a mile in the chord; the Rat Hole, almost equal to the Delaware Water Gap in dimensions and a deal wilder; the constant views in the Alleghenies and Blue Ridge; the Natural Bridge, reached on foot in two miles from Gilmore's Mills; the Peaks of Otter, easily reached on foot or by stage from Buchanan; the magnificent pass through the Blue Ridge at Balcyny Falls—these make pictures scarcely to be seen in a canoe cruise elsewhere in the whole country. Throughout the whole cruise the voyager is sure of the unvarying kindness and genuine hospitality that is a grand trait of all Virginians. We did our own cooking, and slept in the canoes all the while, but our larder was always full and money almost invariably declined.

We urge canoeists in the East to try this splendid stream. Go to Covington via Chesapeake & Ohio R. R., from Richmond. It is a road that is kindly to men of the paddle. An easy week's work will carry the traveler thence to Lynchburg, whence he may return eastward by rail direct; four to five days more will carry him to Richmond, where he may again leave the water; and four days yet longer will afford a superb cruise down the lower James to Norfolk, where railway or steamer opens a direct way to New York. The whole can be done in two weeks with hard work, and three weeks will give time for an easy journey, and the desirable pedestrian tours adjacent to points of interest.

If any of our Eastern brethren of the paddle desire something more definite concerning our James River cruise, the information can be had in a series of three letters published in the Louisville Commercial. A. H. SEGFRIED, Louisville, Ky., Sept. 20, 1877.

—There was at Dieppe, in France, at last accounts, an old three-masted vessel called the Petrus, built 300 years ago. The mast is elevated, and the bows are rounder than those of the present day. She is staunch, and still in service. She was built in Norway, and has always been employed in the Baltic and North Sea trades.

A RAPID JOURNEY ROUND THE WORLD.—Dr. Hass, American Consul at Jerusalem, writes:—"Not counting the time I lay over at different points, as these breaks in the journey could all have been avoided, I made the entire circuit of the globe in exactly 68 days, and but for heavy weather on the Pacific, would have made it in 62 days. The journey from Alexandria, Egypt, via Brindisi and Paris to London, and thence to New York and San Francisco, was accomplished in 20 days, and we were just the same number of days going from San Francisco to Yokohama, Japan. Crossing over from here to Canton, in China, took six days. A sail of ten days over the China Sea and through the Straits of Malacca, touching at several points we have not time to notice, brought us to Ceylon, of the southern coast of Hindustan, and one of the richest of the East India Islands. Thence we sailed directly to Suez, in Egypt, which took 12 days, and thence, in a few hours, by rail to Alexandria, our starting point, making the entire distance of 25,000—16,000 by water and 9,000 on land—in 68 days, without any accident or detention of any kind."

THE LEAF OF LIFE.—There's a certain curious member of the plant family, very common in Jamaica, I am informed, called the life plant, or leaf of life, because it is almost impossible to kill the leaves. You may cut one off, and hang it up by a thread, where any ordinary leaf would be discouraged and dry up. It will send out new leaves, and you may cut off half a leaf and throw it into a tight box, where it can get neither light nor moisture (necessaries of life to other plants), the spirited little leaf puts out its delicate roots all the same. Even pressed, and packed away in a botanist's herbarium—the very driest and dustiest place you ever did see—it will keep up its work, throw out roots and new leaves, and actually grow out of its covers. I'm told that botanists who want to dry this pertinacious vegetable are obliged to kill it with a hot iron or with boiling water.—St. Nicholas, Mag.

National Pastimes.

NEW YORK ATHLETIC CLUB, Sept. 29.—The third open handicap games were held at Most Haven, and comprised the following events: Hundred yards run—First heat, H. Lauterbach, C. R. Birch, 20 ft. Won by Lauterbach in 13 1/2 s. Second heat, W. H. Griffin, 10 ft.; C. S. Phillips, 20 ft. Won by latter in 13 s. Third heat, E. A. Foote, 10 ft.; W. H. Meyers, 10 ft.; S. P. Wier, 30 ft. Foote won in 15 1/2 s. In final heat the handicaps were as in first heats. Griffin won in 10 1/2 s.; Lauterbach, second; Foote, third; Phillips and Birch a dead heat. One-half Mile Run—F. Banham, J. A. Ferguson, 20 yards; B. C. Williams, 20 yds.; C. H. Rowland, 20 yds.; A. W. Anderson, 30 yds.; W. C. Connor, 30 yds.; M. Hunter, 40 yds.; E. G. Gurney, 40 yds.; A. Holbrook, 40 yds.; J. J. Kane, 40 yds.; Banham won in 2m. 57 1/2 s.; Rowland, second; Anderson, third; Holbrook, fourth. Two miles Walk—E. J. Mott and T. B. Bates, scratch; W. Van Riper, 15 s.; T. J. Hill, 25 s.; B. W. Anderson, 45 s.; W. J. Rowland, 45 s.; W. R. Whittemore, 90 s.; J. Connor, 1m. 45 s.; H. C. Cohen, 90 s. Anderson won in 16m, 51 s.; Whittemore, second; Mott, third; Bates, fourth. Steeple chase—Won by Merrit in 1m. 43 s.; Duffly, second; Perken, third; Williams, fourth; Birch, fifth; Griffin, last.

INTER-COLLEGIATE FOOT BALL MATCHES.—The Polo Club of New York City has offered a prize to the victorious team in a series of foot ball matches, to be played early in November on the polo grounds in New York. The contending eleven are to represent Yale, Harvard, Princeton and Columbia.

VETERAN'S CRICKET MATCH.—A cricket match of unusual interest is to be played on Prospect Park, Brooklyn, next Thursday, Oct. 11. The players are to be selected from the local clubs of the metropolis and its vicinity, some of which are extinct organizations, and the match is to be between Long Island and New York and New Jersey. The list of the eligible candidates, those over fifty years of age having the preference, is as follows: From Long Island—Crossley and Marsh, of the New York Club; Labson and Thomson, Jris, H. Russell, E. Russell and Chadwick, of the Long Island Club; Whitto, Nash, Harshorn, Lester and Hoggis, of the King's County Club; Dr. Andrews, North, Reid and Jones, of the East New York Club; Joe Wright and Hatfield of the Queen's County Club; Tilley and Tulm and Pink, of the Satellite Club.

From New York and New Jersey—Jas. Smith, Tyler and Maxwell, of the New York Club; Baker, Elevation, Warner and Jefferson, of the Newark Club; Tilt, of the St. George Club; Lloyd, Neave and Syms, of the Manhattan Club; Langford, of the New Brighton Club; Haincliffe, Crossley and Bridgo, of the Paterson Club.

A SIX YEARS' WALK.—An Englishman has turned tramp, and recently started out from Calais on one of the greatest wagers ever made. He has bet \$250,000 that he will in six years walk through France, Germany, north Russia and Siberia to China, returning through India, Persia southern Russia, and from there over Greece and Italy to France. He must be in Liverpool by the 1st of July, 1883.

New Publications.

THE OCTOBER MONTHLIES.—Harper's, this month, contains fifteen papers, of which nine are illustrated. The place of honor is given to "Mytown," a gossip bit of word description from a woman's pen. "Mytown," it is conjectured, is none other than a quiet Connecticut village. Hunting the Walrus contains some lively reading descriptive of a sport which is not without the added zest of danger. The Life of a New York Fireman affords admirable material for the third paper, the other papers being: The Campaign of Burgoyne—one of those timely topics for the selection of which Harper's has gained an enviable reputation—a group of classical schools, Part Second; A sketch of foreign travel. From Brmsa to Constantinople; the fourth of the series on Popular Exposition of Some Scientific Experiments; the Beglar Army of the United States, by Gen. Geo. B. McClellan; the stories are the continuation of "Eonia," or My Father's Son; Raspberry Island and On Helen Schomer. The poems are: Girl and Woman; Fabrics; An Old Umbrella, and The House Concert.

Scribner's presents its usual variety of good things. Among the new ones described by W. H. Indigo in an interesting sketch with excellent illustrations. Dr. Holland concludes his story, Nicholas Miaturn, and the novel now appears in book form. Hejalmer Iljorth Bovesen, is the subject of an appreciative paper by Frank E. Heath, and his American friends will be glad to receive Boyesen's portrait, which is done in the Scribner's best style. Clarence Cook furnishes an illustrated paper on Topas and Doggerly, which is written in the happy vein of the author. Timely pieces are, An Autumn Song, by E. Norman Gunnison; Clematis, by Mary C. Knapp; Ripe Corn, by C. L. Cleveland; Woodbine in October, by Charlotte F. Bates, and A Vintage Song, by Mrs. E. D. R. Biancardi. A Yankee Tar and his Friends, by Mrs. M. F. Armstrong, is pleasant reading.

In the Atlantic, T. B. Aldrich continues his serial Queen of Sheba, and as the story progresses, it proves one of the best that this favorite fiction writer has given to the Atlantic readers. H. C. contributes one of her characteristic and ever delightful sketches, The Procession of Flowers in Colorado. W. V. Story writes in Memoriam, John Lothrop Motley; Edgar Pawcett's poem this month is on the Willow, and there are other poems of unusual excellence. Mark Twain gives Some Random Notes of an Idle Excursion. The departments of fiction, travel, literature and miscellany are well represented by stories, sketches and essays. The Contributor's Club deals with a variety of topics from a variety of standpoints, and has become one of the most interesting features of the magazine.

The Galaxy has a paper from the pen of Gideon Wells—Administration of Abraham Lincoln; a discussion by Albert Rhodes of the question: Shall the American Girl be Chaperoned?; a paper on Guns and Armor, by E. Simpson; and Edwin Forrest, an Actor's Estimate of a Great Artist, by Lawrence Barrett. A Legend of the Delaware affords material for Our Witch, a story by Emily Felt; Our Near Neighbor is discussed by C. M. Raymond, the Strange Adventure of Lieutenant Yerganoff, is translated by A. Vermer from the French of Ivan Tourgensoff; Justin McCarthy concludes his serial, Miss Misanthrope. There are other stories, poems and essays; the departments of Drift Wood and Scientific Miscellany are treated in a style peculiar to the Galaxy. The whole number is a most excellent one, and sustains the reputation for vivacity and sprightliness long ago earned by the magazine in past years.

Tiffany & Co., Silversmiths, Jewelers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. TIFFANY & CO. are also the agents in America for Messrs. PATEK, PHILIPPE & Co., of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones, General Jewelry, Artistic Bronzes and Pottery, Electro-Plate and Sterling Silverware for Household use, fine Stationery and Bric-a-brac, is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York.

New Advertisements.

NOTICE is hereby given that Certificate No. 12, for two shares of stock of \$500 each in the Forest and Stream Publishing Company, issued to the undersigned August 2, 1873, have been stolen, and all persons are hereby notified not to negotiate for the same, as application has been made for the reissue of said certificate. Oct 4

SIMEON A. ATKINSON.

KNOW THYSELF A new Medical treatise, "The Science of Life, or Self-Preservation. A book for everybody." Price \$1, sent by mail. Price original prescriptions, either one of which is worth ten times the price of the book. Gold medal awarded the author. The Boston Herald says: "The Science of Life, is beyond all comparison, the most extraordinary work on Physiology ever published." An Illustrated Pamphlet sent FREE. Address DR. W. H. PARKER, No. 4 Bulfinch Street, Boston, Mass. HEAL THYSELF Oct 2m

CITY AND COUNTRY PROPERTY bought, sold and exchanged. C. S. PECK, 5 West Twenty-fifth street, New York. Sept 27 1/2

25 Fashionable Cards, no 2 alike, with name 10c. post paid. GEO. I. REED & Co., Nassau, N. Y. Oct 1/2

REVOLVERS, 7 SHOT, \$2.50 at MARTERS, 123 Nassau street, New York, and 55 Court street, Brooklyn.

Painting.

EVERY ONE THEIR OWN PAINTER.

50 Per Cent. Saved. We are manufacturing a very fine Pure Ready-mixed Paint, mixed in such a manner that any ordinary stable or farm hand can make as good a job painting as a painter can with paint mixed in the old way. This is because our paint does not set quick, and thus show marks of the brush. We sell it lower than materials can be bought in the ordinary way, and pay freight in certain sized orders. Any gentleman wishing to paint up his buildings at small expense had better write, and have sent free our book.

Address 260 Front street, INGERSOLL PAINT WORKS. Oct 2 1/2

Publications.

SECOND EDITION.

Sportsman's Gazetteer

896 pp., Price \$3. Tinted Paper, 1/2 bonad Morocco, \$5; Tinted Paper, Muslin, \$4.

BY CHARLES HALLOCK,

EDITOR OF "FOREST AND STREAM;" AUTHOR OF THE "FISHING TOURIST," "CAMP LIFE IN FLORIDA," ETC.

NEW YORK:

"FOREST AND STREAM" PUBLISHING CO. Sent by mail post paid on receipt of price.

This book is a complete encyclopedia for sportsmen. It gives every sportsmanlike method for capturing every kind of game animal, bird and fish in North America. It designates the proper charges for guns for each kind of game, the various kinds of decoys and blinds, and baits and tackle for the fish. It gives over 4,000 localities where game and fish may be found, specifies the game found in each locality, the hotel accommodation, and the best route to get there. It describes 297 varieties of edible fish alone, that may be taken with the hook; 50 varieties of ducks; 50 varieties of snipe or waders, and the different methods of shooting each. Every kind of dog used for sport is designated, and his points for bench judgments fully given. It is in itself the most complete, accurate, instructive, sensible and comprehensive work ever written upon the dog and his diseases. Any person can administer the prescriptions with perfect confidence in their safety and efficiency. It contains very useful recipes and remedies for wounds, bites, poisons, illness and emergencies of all kinds; for cleaning, repairing and preserving every implement used for sport; for selection and use of every kind of boat and every kind of boat, and a directory where to buy outfitting goods. It instructs in Photography, and tells how to preserve and mount specimens of animals, birds and fish.

INDORSEMENTS.

SPORTSMAN'S GAZETTEER.—Geo. Bird Grinnell, of the Peabody Academy of Science, New Haven, writes: "I have to thank you for a copy of the Sportsman's Gazetteer received day before yesterday. I have delayed acknowledging it, in order that I might be able to speak intelligently of its merits. I have looked it over somewhat carefully, and I must say that I am delighted with it. It seems to be just the book that we have so long wanted in this country—a American 'Stonehenge' in fact. On the titles you have surpassed yourself, and I am astonished at the amount of material you have collected, and the happy method in which you have treated the group. The Dog and Diseases of the Dog are admirably written, and will be of the most useful of manuals for sportsmen. The Art of Fly-Fishing, and the hints and recipes are all that could be desired; in fact the book seems to be a complete success. I do not see how it can fail to have a large sale."

THE SPORTSMAN'S GAZETTEER.—The Gazetteer duly came to hand, and to say that I am delighted with the book only faintly expresses my appreciation of it. How you have been able to gather so much valuable matter together is almost a mystery to me. It certainly speaks well for your industry and knowledge of the subjects discussed. For the size and valuable information contained, the price, I think, is remarkably low, and I would not be without it for double the price. Every sportsman and everybody interested in sporting matters should have a copy, and I shall take great pleasure in recommending it to my army friends. H. C. YARROW, M. D., U. S. A.

THE GAZETTEER.—The Sportsman's Gazetteer duly received, and myself and many of our best judges in sporting literature have critically examined the book, and all unite in pronouncing it the most valuable work ever issued from the press on kindred subjects. It is a wonder to all how so much valuable information could be so intelligently crowded into a book of its size. The task must have been very great, but has been accomplished in a remarkably concise, intelligent and pleasing manner. Every page demonstrates the fact that the author was a master of his subject. No sportsman or tourist can afford to be without the book, and it ought to be, and no doubt will be, read generally by the masses, and certainly by all interested in the study of natural history. DR. D. C. ESTES. Lake City, Minn., Aug. 1, 1877.

DON'T FAIL TO GET A COPY OF THE OCTOBER NUMBER

Fur, Fin & Feather,

CONTAINING THE New Game Laws of all the States and Canada, AND A COMPLETE LIST OF HUNTING GROUNDS

Besides a vast fund of Valuable Information and Entertaining Reading for those who use either gun or rod, the whole forming a volume of 190 large octavo pages. Price 50 cents. Can be had of all News Agents, Gun Stores, and Dealers in Fishing Tackle and Sportsmen's Goods, or will be mailed, postpaid, on receipt of price, by

CHAS. SUYDAM, Publisher, 149 Chambers Street, N. Y. \* \* \* Can be had at the office of Forest and Stream.

Sportsmen's Routes, Etc.

Sportsmen's Headquarters

FOR WINES, LIQUORS AND CIGARS.

Outfits for yachting. The camp or field a specialty. Olives by the case, gallon or bottle.

THOS. LYNCH, IMPORTER,

99 NASSAU ST., Bennett Building, New York. Sept 27 1/2

St. Paul and St. Louis Short Line.

Burlington, C. Rapids & N'rth'mn Railway.

QUICKEST, CHEAPEST AND BEST!

TWO PASSENGER TRAINS EACH WAY DAILY, crossing and connecting with all East and West Lines in Iowa, running through some of the finest hunting grounds in the Northwest for Geese, Ducks, Pintails and Ruffed Grouse and Quail. Sportsmen and their dogs taken good care of. Reduced rates on parties of ten or more upon application to General Ticket Office, Cedar Rapids. C. J. IVES, General Manager. Gen. Passenger Agent. E. F. WINSLOW.

CHICAGO & ALTON RAILROAD.

THE ONLY DIRECT RAILROAD from Chicago to St. Louis, and Chicago to Kansas City, WITHOUT CHANGE OF CARS.

FIRST-CLASS ACCOMMODATIONS IN EVERYTHING.

SPORTSMEN will find splendid shooting on the line of this road; prairie chicken, geese, ducks, brant, quail, etc. Connects direct at Kansas City with the Kansas Pacific Railroad for the great Buffalo and Antelope range of Kansas and Colorado.

Liberal arrangements for transport of Dogs for Sportsmen.

JAMES CHARLTON, General Passenger Agent, Chicago, Ill.



Steele & Son Jewelers and Silversmiths,

HARTFORD, CONNECTICUT,

Dealers in Diamonds, Silverware, Watches, Jewelry etc. Importers of French, German and English Fancy Goods. Special attention given to the manufacture of appropriate designs for Shooting, Boating, Racing and other prizes, and our Illustrated Catalogue, containing three dozen wood cuts of the above and other articles in our line, including the GAME LAWS OF CONNECTICUT, mailed to any address on receipt of 50 cents. Sept 27 1/2

Best Air-Pistol Made.



\$5.00

Sent for Circular of AIR RIFLES and REVOLVERS, JOHN P. LOVELL & SONS, Boston, Mass. Sept 27 1/2

EDWIN HACKETT,

LATE OF E. & C. HACKETT, 87 GRACECHURCH STREET, LONDON, and

34 Lower Loveday street, Birmingham, England, Manufacturer and Importer of

Breech-Loading Shot-Guns,

With all recent improvements. N. B.—Pin-fire made direct. Fitted with English rebound locks, self-lifting strikers, pistol-grip hands, Guns bored to shoot close, cleaning, repairing, browning etc. Orders from dealers promptly attended to.

104 WILLIAM STREET, New York. Sept 13 3m

# NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

**MADE OF BROWN VELVETEEN.**

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Ilorace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$6.50. Also the best brown corduroy pants at \$10 per pair. I make only the one grade, as the cheapest goods do not turn briars and will not give satisfaction.

Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is The Best Yet. Coat, \$6.50. For full Suit, \$14.00. I also make the Sleeveless Coat; Vest with sleeves if desired. Rules for measurement and samples sent upon application.

**F. L. Sheldon,**

RAHWAY, N. J.

For Sale in New York by

**H. C. SQUIRES, 1 Cortlandt St., N. Y.,**

## CREEDMOOR PARLOR RIFLE.

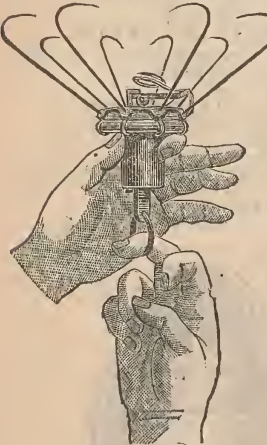


Finely finished, carved stock. Loads at breech with small percussion cartridges. Will shoot 200 feet with accuracy and force. There is scarcely any report, and no smell from this Rifle, making it very appropriate for parlor use, picnics and fairs. The shell, extractor is on the hammer, pulling out the old shell every time the hammer is raised. Price, \$10. Cartridges for rifle \$3 per thousand, or \$1 per box of 250. Iron bell target, with numbers, \$5, sent C. O. D. or on receipt of price. Send for price list of Revolvers, Skates, Novelties and Sporting Goods.

**FISH & SIMPSON,**

132 NASSAU STREET, NEW YORK.

# A VICTORIOUS INVENTION The Eagle Claw.



An ingenious device for the purpose of catching all kinds of Animals, Fish and Game. The easy method of setting the Eagle Claw, combined with the simplicity of removing the victim, are among its peculiar advantages.

It is immaterial how to place it when set. It may be buried flat in the ground, suspended from the limb of a tree, or, when occasion requires, covered with grass, leaves or other light material without in any way impairing its certain operation. It is adapted for bait of any description, and, when set, no Animal, Fish or Bird that touches the bait can possibly escape. It does not mangle or injure its victims in the slightest degree, nor need they be handled to free them from the trap.

- PRICE LIST:**
- No. 1—For fishing and all kinds of small game and animals, sent by mail.....35 cents.
  - No. 2—For catching Mink, Muskrats, Raccoons, large Game, Fish, &c.....75 cents.
  - No. 3, or Rocky Mountain Giant, for catching Bears, Wolves, Panthers, &c. Can be easily set by a boy, and will stand a strain of several hundred pounds. Weight, 10 to 15 lbs. \$10. All goods sent, charges paid, to any address on receipt of price. Address

**Stent & Co., Gen'l Agents,**  
132 Nassau St.,  
N. O. Box 2997.  
NEW YORK.  
**AGENTS WANTED.**

## HENRY C. SQUIRES,

No. 1 CORTLANDT STREET,

Winner of the Minnie Silver Cup in 1874, presented by Mr. Purdy, beating all best London makers



Winner of London Gun Trial, 1875, beating 102 guns.

AGENT FOR THE  
**Celebrated Prize Guns**  
OF  
**W. W. GREENER.**

These guns have been winners in every trial during the last three years, competing with all the first-class makers in England. The shooting of every gun is guaranteed, and prices as low as consistent with all the good work. Guns built to exact order of sportsmen. I keep the best selected stock of guns by all the other makers to be found in this city, including Scott, Webley, Remington, Parker and Fox. Marshall's new Glass Ball Trap, \$5; three traps, \$12. English chilled shot, all sizes and in any quantities. Agent for Dittmar powder. Complete outfits for hunting and camping. Best Breech-Loader ever offered in the United States for \$35. Wholesale Agent for Holbourn's Shooting Suits, and Camp Lounge Company.

# THE UNITED STATES CARTRIDGE COMPANY,

LOWELL, MASS.

Manufacturers of the  
**CENTRAL FIRE, SOLID HEAD,  
BRASS SHELL, RE-LOADING CARTRIDGE,**

Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

**WALLACE & SONS, Agents, N. Y. City.**

**BOYS' SINGLE-BARREL SHOT-GUNS, \$2.00 at**  
MARSTERS,  
125 Nassau street, New York, and 55 Court street,  
Brooklyn.

**SHELLS LOADED FOR PARTRIDGE, QUAIL**  
WOODCOCK and SNIPER, \$1 per hundred, at  
MARSTERS, 125 Nassau street, New York, and 55  
Court street, Brooklyn.

For Sale,

## Town Point Farm FOR SALE OR RENT.

Located at the junction of the Elk and Bohemia Rivers, head of Chesapeake Bay, Cecil County, Maryland. Contains 100 acres of fine tillable land. Orchard of 900 pear trees, peaches, apples, plums, cherries, and small fruit in great abundance. A fine large modern house, detached house and outbuildings. A fine lawn from the house to the river; no marsh, hard shores. From front splendid view down the Bay; the most healthy and beautiful site in Maryland. Easy access to Philadelphia and Baltimore by steamboat and rail; wharf half-mile from house. This farm is celebrated as one of the best of wild fowl points. There are four points on the place, so located that four sportsmen can shoot daily from each point without interfering with each other; twenty varieties of ducks frequent these waters; from the place the famous Susquehanna Flats are in sight, where snipe-shooting can be indulged in. The Farm and country around are stocked with partridges and pheasants; plenty of woodcock in season; fine rail and reed shooting a short distance up the river; abundance of snipe in the spring; valuable herring and shad shares on the place; white perch fishing unequalled; a most desirable place for a gentleman's residence or club house. In view of its many advantages of health, beauty, drives, teaching, bathing, fishing and extraordinary fowl-shooting, if a summer boarding-house or hotel were opened there a constant influx of guests at paying rates could be depended on. We have had many applications for board from gentlemen from all parts. The Farm produces large yields of good cash markets. Will be sold low. Two-thirds of the purchase money may remain. If not sold in due time the place will be rented. Apply to O. L. FOLKES, on the premises; JOHN E. WILSON, Elkton, Md.; or WM. H. ABBOTT, 20 N. Seventh st., Phila. Sept 25

**FOR SALE**—English breech-loader; central fire, under lever, 12-gauge, 30-in. barrels, 8 lbs., will sell cheap. Room 17, 9 Murray street, N. Y. Oct 4

**FOR SALE**—A handsome, new (\$75) Peabody-Martini mid-range rifle. Sold cheap, or will exchange for a heavy Parker shot-gun. Address W. L. TRACY, 36 Ford street, Providence, R. I. Oct 11

**FOR SALE**—Petrels, \$1 each. Address, with stamp, to E. VANDELVEVER, Hyde Park, Dutchess County, N. Y.

**FOR SALE CHEAP**—A Maynard shot gun in good order, with twenty shells. Regular rifle barrel; can be used in place of shot barrel, making complete rifle or shot-gun at little expense; barrels can be changed in a few seconds. Also AMERICAN SPORTSMAN, Vol. II, No. 5 to 12; Vol. III complete, except No. 3 and 4. MAYNARD GUN, 119 Prince street, Brooklyn. Oct 11

**CARTRIDGE BAGS, \$1.25; GAME BAGS, \$1.50; POWDER FLASKS, 75c; SHOT POUCHES,** 75c. at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

**A Valuable Ducking Shore For Sale.**  
For sale—The well-known ducking shore, "Cuck-birds Point," formerly owned by David Townsend. This most desirable place, both for ducking and fishing, is located at the mouth of Back River, and is accessible by the new Canton shell boat. For further particulars apply to DR. WM. H. KEENER, N. W. cor. of Charles and Lexington streets, Baltimore, Md. Sept 20

**FOR SALE**—A Purdy muzzle-loader, 9-gauge, 8 lbs., 30-inch barrels; in perfect order, with oak and leather case; price \$100. Address PURDEY, care Mr. Bourne, 4 Cedar street, New York. Sept 27

**BLOOMING-GROVE PARK ASSOCIATION.**  
One share in above association for sale at a very low price. The best Game Preserves in America. Trout, Black Bass and Pickered fishing. Address SPORTSMAN, this office. Feb 22

**A VERY DESIRABLE ESTATE,** either for market gardening or general sporting purposes, at the south, will be leased to responsible parties for a long or short term of years. Persons intending to locate in Florida will do well to investigate. Address "SPORTSMAN," this office. Aug 23

**FOR SALE**—A W. W. Greener, No. 10 breech-loader; 8 lbs., side lever; sole leather case, tray for shells, and apartments for tools, etc., with 100 Hart's metal shells; but little used; price \$17.50. WM. H. WHITALL, 417 Walnut street, Room No. 2, Phila. Sept 27

**CURTIS & HARVEY AND DUPONT GUN-POWDER** at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

### Wanted.

**WANTED**—Second-hand long-range breech-loading rifle; must be in good condition and price low. Address, stating kind, terms and particulars, P. O. Box 51, Albany, N. Y. Oct 4

**ELEY'S SHELLS, WADS and CAPS** at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

### The Kennel.

## Smith's Worm Pills for Dogs.

Box sent, post paid, on receipt of 25c. Address  
**BENJ. SMITH,**  
Sept 13 1m 80 Green st., Charlestown, Mass.

**WANTED**—Dog broken to tree partridges; one that will stay with the bird. Address, giving description and price, MILTON JONES, P. O. box 3, High street office, Holyoke, Mass. Sept 27

**FOR SALE**—My setter dog Biff a little over two years old, out of Nell; she sired by Rodman's Dash. Fine disposition, well yard broken, active, a good retriever and in her good control; was hunted quite on ruffed grouse and woodcock last fall; price \$35. Address box 73, Binghamton, N. Y. Sept 27

**FOR SALE**—Fine Irish setter seven months old; color, bright red; price \$15. Two setter pups fourteen months old, very well broken. For particulars, address J. H. STEELE, Ellington, Conn. Oct 11

### The Kennel.

**EXTRA** fine red Irish setter pups for sale: One dog pup, eight weeks old, out of Dufferin's bitch Bess, and sired by my imported red Irish setter dog York; price \$25. One bitch pup, four months old, out of my imported prize bitch Floss; price \$25. One fine English bred pointer, two and a half years old, broken on all kinds of game; will give him to satisfactory persons on trial. I also offer for the stud my imported red Irish setter dog York, a prize winner at Shows in Ireland, and at four in this country; very low. For pedigree and full particulars, inquire of C. Z. MILBY, Lancaster, Pa. Oct 4

**FOR SALE**—Four dark red Irish setter puppies—two dogs and two bitches—out of my Irish bitch Bess, by imported Irish setter dog York. Bess is a rich dark red, a superior field dog, and the dam of 10-gauge, winner at New York dog show. York is winner of five prizes—one in Ireland, four in this country—and is one of the hand omelet colored red dogs in America. For full pedigree, price, etc., address E. A. DUFFIN, Lancaster, Pa. Oct 13

**WANTED**—Cocker spaniel dog about eight months old; as dark liver as possible, and to bark on the wire. Sent pedigree and particulars to CHAS. POTTER, Lock Box 31, Corry, Pa. Oct 12

**IRISH PUPS FOR SALE**—Irish setter pups, three months old, out of Cottinest, sired by Rodman's Dash; six pups imported Irish setter Don, broken on quail and grouse; very staunch and fast. Two bitch pups, Gordon setters: one Gordon bitch, eight months, \$45; one Gordon dog, limited last fall, \$40; imported Irish setter Dog, \$100. H. B. VONDELVEVER, Lancaster, Pa.

**FOR SALE**—Pointer bitch two years old, out of imported stock; thoroughly broken; price \$35. GEO. A. FALES, Foxboro, Mass. Oct 12

**WANTED**—A well-broken black and tan Gordon setter, two or three years old; one never served preferred. Address, price and pedigree, P. C. FOLK, Middletown, Ohio. Oct 11

**FOR SALE VERY CHEAP**—A pointer bitch pup three months old, and a pointer dog one year old, very handsomely marked. Can be seen at 118 East Eighteenth street, New York. Oct 11

**FOR SALE**—A superior well-bred pointer dog, well bred, and five pups now about eight weeks old, if the owner cannot keep them. The whole lot offered for \$100. Sent pedigree and particulars, address C. E. BROWN, Avery Brown & Co., Halifax, N. S. Oct 12

**FOR SALE**—One red and white pure English setter bitch three years old, and thoroughly broken; price \$35. Will be worked for any person wishing to see her field qualities. For pedigree and other particulars, address E. J. ROBBINS, Westchester, Conn. Oct 11

**FOR SALE**—Four Beagle hound pups, two dogs and two bitches; now five months old. Address W. T. STRADEL, Newton, Sussex County, N. J. Sept 20

**THE N. Y. Kennel Club** offer for sale their Irish setter bitch, 3 years old, out of Cottinest, sired by Dr. Strachan's Belle. Very handsome. Has had one litter and will make an excellent brood bitch. Price \$50. Sept 20

**FOR SALE**—10-d Irish setter, 2 1/2 years old. Very cautious; shot over all last season; good as terrier, land or water. Parton arly by letter. Price \$25. Sporting spaniel Gyp, 6 months old, partly broken. Cocker spaniel Dan, 8 yrs. old, \$80. THOS. J. CANTWELL, Bradford, Mass. Sept 20

## Fleas! Fleas! Worms! Worms!

STEADMAN'S FLEA POWDER FOR DOGS.

**A Bane to Fleas—A Boon to Dogs.**  
This Powder is guaranteed to kill fleas on dogs or any other animals, or money refunded. It is put up in patent boxes with shining pepper box top, which greatly facilitates its use. Simple and efficacious.  
Price 50 cents by mail, Postpaid

## ARECA NUT FOR WORMS IN DOGS.

A CERTAIN REMEDY.

Put up in boxes containing a dozen powders, with full directions for use.  
Price 50 cents per Box by mail.  
Both the above are recommended by ROD AND GUN and FOREST AND STREAM.  
**W. HOLBERTON,**  
Oct 12 112 NASSAU STREET.

## EDINAKENNEL.

**JESSE SHERWOOD**, PROPRIETOR, Edina, Knox County, Mo., breeder and importer of Sporting Dogs. English setters, spaniels, fox and beagle hounds, "Sancho" Imp. Pointer, shot dog; fee, \$25. See English K. C. S. B., No. 1, 1905. He is a grandson of the celebrated "Hannet," No. 336. This dog "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874, three here.

## Second Annual Bench Show

AT ST. LOUIS, MISSOURI,  
OF SPORTING AND SHEPHERD DOGS.  
Held under the auspices of the St. Louis Fair Association, commencing Tuesday, October 2d, and closing Friday, October 5th, 1877. One Thousand Dollars in premiums, cash. Entries close September 29th, 1877. All communications must be addressed to C. H. Turner, Fair Association, St. Louis, Mo. The St. Louis Kennel Club dogs will not be entered for competition. CHAS. BINGHAM, Superintendent.  
JOHN DAVIDSON, St. Louis, Mich., Judge.  
Sept 5

## CHAMPION LARK IN THE STUD.

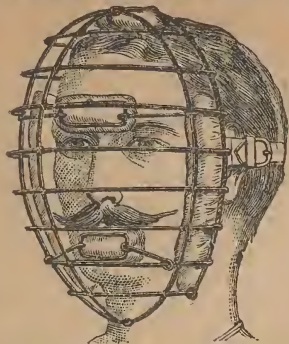
Orange and white, by Brooks' Phil, out of Raymond's Dido. Perfect specimen of English setter. First prize in N. Y. Bench Show for English setters in largest class ever shown in the country, beating Gordon's Prince and Nip and Tuck, who beat both Paris and Leicester. For terms apply to  
**E. S. WANMACHER, Hoboken, N. J.**





Sportsmen's Goods.

PECK & SNYDER'S



Base-Ball Catcher's Mask,

Now used by all the prominent catchers when playing behind the bat.

We send samples, C. O. D., for \$3. Enclose stamp for the *Athletes Journal*, giving our latest prices of all goods in the sporting line.

Address PECK & SNYDER, Manufacturers, Aug 16 5m 124 Nassau street, N. Y.

COMPLETE OUTFITS

FOR

Camping, Shooting & Fishing

Fine fishing and shooting tackle, camp stoves, leather, rubber and canvas goods and suits for sportsmen. Tents, portable boats, moccasins, etc.

AGENTS FOR THE FOX GUNS.

The best and strongest American guns yet made. Sole agent for the celebrated McVidie files, Holberton's fly rods, black bass and trout flies, and full length fly books; Purdy's glass ball traps and bull-eye balls, etc. Send ten cents for illustrated catalogue, with prices for glass ball shooting, and hints on camping, shooting and fly-fishing for trout and black bass.

W. HOLBERTON,

P. O. Box 5, 109, 102 Nassau street, N. Y. Aug 23 tf.

Gale's Patent Tents,

Adapted to all purposes where Lawn, Beach, Hunters and Camp Tents are used; are eight feet high, seven feet square at bottom, will lodge four persons, can be set up or taken down and packed in five minutes, making a bundle four feet long, of twenty-five pounds weight. The pole in two parts, is joined together by a brass tube. They are wonderfully light, and yet very strong, and are the handiest and cheapest tents extant. Samples of goods and price list sent free, and the tent sent on receipt of price, or C. O. D. Prices from \$10 to \$15.

GALE & CO.,

Ag 2 tf Boston, Mass.

Publications.

BINDERS.

Get your books bound. Art Journal bound uniform to London publishers' style. Picturesque America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done into or three days if required.

E. WALKER'S SONS, 14 Dey street.

"THE OOLOGIST,"

A MONTHLY JOURNAL DEVOTED EXCLUSIVELY TO BIRDS AND BIRDS' EGGS.

This magazine, the favorite of amateur ornithologists, is now in its third volume. It is replete with all that is new or recent in Ornithology and Oology, and publishes important papers on the rarer of our birds and eggs. It is just the periodical for those making collections of birds and eggs for scientific examination, as its columns are constantly furnishing descriptions of the eggs of new and rare species.

TERMS—Forty cents a year, in advance. Specimen copies and prospectuses only on receipt of stamp. Address,

S. L. WILLARD & CO.,

je7 Oneida st., Utica, N. Y.

LONG-RANGE RIFLE SHOOTING.

A Complete History of the International Long-Range Matches, 1873-1877—Complete Elcho Shield Scores—Rules and Regulations of the N. R. A. Etc., Etc.

FULLY ILLUSTRATED

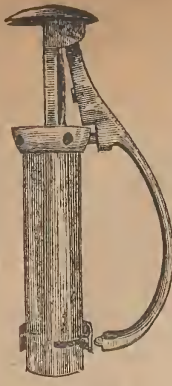
BY THE

RIFLE EDITOR OF THE "FOREST AND STREAM AND ROD AND GUN."

Price 25 cents.

NEW YORK.

Published by the Forest and Stream Pub. Co. 1877.



STODDARD'S CARTRIDGE LOADING IMPLEMENT, COMBINING SEVEN DIFFERENT TOOLS, Cap Expeller, Recapper, Loader and Tube, Creaser, Cutter Crimper and Shell Extractor.

NO. 10 NOW READY.

Performing all the operations possible in the manipulation of Paper or Metal Shells for Drench-Loaders.

Length, 4 1/2 inches. Nickel Plated. Weight 10 ounces.

All the operations are perfect, and suitable for any shell.

AWARDED BOTH MEDAL AND DIPLOMA AT CENTENNIAL EXHIBITION.

PRICE, \$6.

Circulars sent on application. Send postal order or check to

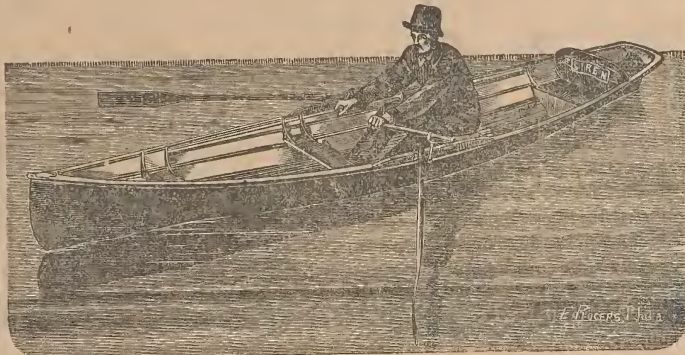
C. J. STODDARD & CO.,

Lock-Box 192, Washington, D. C.

LIBERAL DISCOUNT TO THE TRADE.

LYMAN'S

PATENT BOW-FACING ROWING GEAR.



This invention enables an Oarsman to see where he is going. He sits with his face to the bow. Every Rower knows how awkward it is when pulling single, or as bow-man in a crew, to have to turn and watch the course. By using this arrangement the Rower is brought into his proper position, and he can row as he would drive. There is NO LOSS OF POWER. Send for circular, directions and opinions of the press to the Patentee,

WILLIAM LYMAN, Middlefield, Conn.

OFFICE IN NEW YORK, 32 CORTLANDT STREET.

W. & C. SCOTT & SONS.



TRIPLEX.

marked the PREMIER QUALITY

[Extract from FOREST AND STREAM, New York, December 26, 1876, Contributed by one of the Judges of Awards of Guns at the Centennial.]

"This action (The Triplex Lever Grip) combines in the highest degree strength and simplicity, and must rapidly secure the favor of all who test its merits.

COMPENSATING LUMP. Strongly recommended. It is invaluable, and should be ordered on every gun. Costs about \$10 extra. Choke-bored, medium or full. Our guns to be had of the principal dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.

ESTABLISHED IN 1837.

Consult your interest by sending for our revised and reduced prices.



Excelsior

LATEST IMPROVEMENT.

Double blade, including one dozen Saws, thirty indiarubber Foot Sawing Patterns and prepare Wood, to the value of \$4. A new device for tightening Saw, Power Drilling attachment, Wrench, Col Cup and Screw Driver. Speed, 800 strokes per minute. Saws, 2 1/2 inch wide. Price, complete, case and delivery on board cars or Express office, \$12. Saw only, without attachments, \$9.

SMALL STEAM ENGINES.

With Copper Boiler, to drive light Lathes, Scroll Saws, etc. Are all sizes from 1 1/2 up to 2 horse power; either plain castings, partly finished, or complete, ready for use.

The "Scientific American" of June 10, 1875, says of these, in an extended Editorial, introducing our manufactures to the public: "It can turn wringers, churns, washing machines, iced-cream freezers, run coffee mills, pump water through a house, operate foot lathes, scroll saws or light boring machinery, run knitting or sewing machines, turn a grindstone or emery wheel, work ventilating or hand thrashing machine cutters, meat or feed choppers, or sausage machines, drive small blowers for pneumatic dispatch tubes in a building, or for a blower's forge, or compress air or work an air pump on a small scale in a laboratory. These are a few only of the purposes to which it can be applied."

Also Engines and Boilers capable of propelling 15 to 18 inches. The boats have keels, stem, with rudder and tiller, row locks and oars. These wishing a pleasure boat will find



BUFFALO PONY PLANER.

Nearly one thousand in use.

Buffalo Pony Planer. Will earn itself, and pay expense of running in 8 days. Price from \$50 and upwards, each.

LIGHT MACHINES FOR PONY OR HORSE POWER.

The great success of these machines is unprecedented, and it may be confidently affirmed that no article has ever more clearly proved its superiority for the quantity and quality of its work than this. It is made in several sizes, and can be fitted up suitable for bullock, mule, steam or wind power, in addition to those above mentioned.

Buffalo Excelsior Pony Planer and Matcher.

Patented March 30, 1875.

Best of its kind in use. Price, complete, \$875. Also Planing Machine Knives, which are recommended as superior and extra in quality.

line boats from 18 to 28 feet long, 1 1/2 to 5 1/2 feet beam, with draft of water stem and rudder post oak, pine planking, copper fastened throughout, fitted with all around the back, lockers and coal bunkers, and have two coats of paint. These the safest and fastest, as they can be made to attain a speed of from 6 to 16 miles per hour. They are adapted to a great variety of uses, such as Excursion, Shooting, Fishing or Pic-Nic Parties, for travelers, voyagers, boatmen and tourists, and especially owing to their light draft of



water for exploring expeditions and surveying parties. The Engine and Boiler can be easily detached from the boat, and is then available for Agricultural, Mechanical, Commercial or Domestic requirements or for the use of Amateurs, when power is desired for running light machinery.

Price of 20 foot boat, complete, \$12500

Price of Engine and Boiler, without boat, including driving pulley, 22500

Illustrated Catalogue containing one Hundred Scroll Work Designs mailed to any address free on receipt of Stamp.

GEORGE FARR, BUFFALO, N. Y., U. S. A.

Sportsmen's Goods.

HAMMOCKS

FOR LAWNS AND EXCURSIONS

Tents, Camp Stools, Camp Kettles, Rubber Blauketts, Mosquito Nets, Lawn Seetees, etc. Send for Illustrated Circular. G. WEBSTER PECK, Manufacturers Agents, 110 Chambersst., N. Y.



EVERY DESCRIPTION OF Sporting Goods.

GUNS, RIFLES, PISTOLS & FISHING TACKLE, HUNTING AND FISHING SUITS, CAMPING OUTFITS.

Bogardus' Glass Ball Traps, \$10.00; Glass Balls, per hundred, \$2.40.

Send \$2.50 for our "Wasp" revolver, 22 cal. 7 shot nickel-plate, warranted. Satisfaction guaranteed. Send Stamp for Catalogue.

WASHBURN & CO.,

P. O. box 522, 66 JOHN STREET, N. Y. je14.

Amusements, &c.

Zoological Garden.

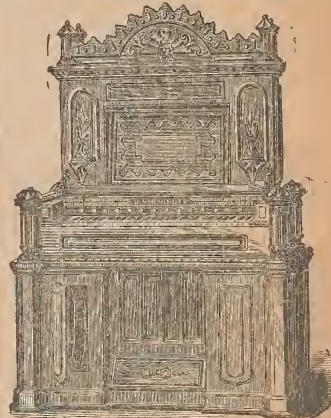
FAIRMOUNT PARK, PHILADELPHIA. Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 19

THE GREAT NEW YORK AQUARIUM, Broadway and 35th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 bow fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments. Couey Island Aquarium now open for the summer.

Highest Honors

CENTENNIAL WORLD'S AIR, 1876.

SHONINGER ORGANS.



PRONOUNCED UNANIMOUSLY AS THE

Best Instruments.

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:

The B. SHONINGER ORGAN CO.'S exhibit as the best instruments at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, less liable to get out of order, all the labor being made three-ply, put together so it is impossible for them to either shrink, swell or split. THE ONLY ORGANS AWARDED THIS HONOR.

This Medal and Award was granted after the most severe competition of the best makers, before one of the most competent juries ever assembled. New styles at a price just issued, which are in accordance with our rule, the BEST ORGANS for the least money.

We are prepared to appoint a few new Agents. Illustrated Catalogues mailed, postpaid, upon application to

B. SHONINGER ORGAN CO., 97 to 123 Chestnut Street, NEW HAVEN, CONN.

Bound Volumes

Forest and Stream.

EIGHTH VOLUME, NOW READY.

First Four Volumes, \$4 each, Others, \$3.50.

A complete set of the FOREST AND STREAM—seven volumes, bound handsomely in cloth—a valuable library for the sportsman—can now be obtained on application to this office.

The perfect revolving NEW TROLLING SPOON. The best in the world. If not to be found at your fishing tackle store, these spoons will be forwarded by the manufacturer by mail. Price, \$1 each. JOHN H. MANN, Syracuse, New York. je25

C. C. & B. ZEPFLER, GUNSMITHS AND RIFLE GALLERY, 207 Bowers, New York.

Guns, Rifles, Etc.

SPORTSMEN

Will find a select assortment of Guns, Rifles, Revolvers, Ammunition, And all goods appertaining thereto.

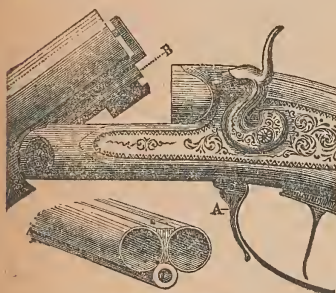
Special Attention is invited to Our New SMITH'S PATENT REVOLVERS, In four sizes of 22, 32, 38 and 41-100 cal.

This new and elegant Arm combines simplicity durability, a perfect interchange of all its parts. The most critical inspection in process of manufacture, and with its patent improvements, make it the Most Desirable Revolver in the Market.

A COMPLETE ASSORTMENT OF MAYNARD RIFLES, SHOT GUNS, ETC. Send for Circular.

FOWLER & FULTON,

NO. 300 BROADWAY, N. Y. M. FOWLER, HENRY FULTON.



THREE BARRELED

Breech-Loading Guns.

(TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

PRICES.

- Three barrel, \$75 to \$250. Double barrel shot guns. Damascus barrel, \$50 to \$200. Twist barrel, \$35.

SEND FOR NEW CIRCULAR.

W. H. BAKER & CO., Syracuse, N. Y.

Sportsman's Depot.

(ESTABLISHED 1836.)

First premium at World's Fair at New York and Centennial Exhibition.



JOHN KRIDER,

N. E. Cor. Second and Walnut Sts., Phila. GUNS, RIFLES, PISTOLS.

Fishing Tackle, Rods, Reels, Lines, Hooks, Flies, Leaders, Shoods, Artificial Bait, Fly Books, Etc., Etc.

Salmon, Bass and Trout Files Made to Order.

Krider's Celebrated Center Enamel Spitt and Glued Bamboo Rods.

Birds' Eggs and Birds' Skins in Great Varieties—Taxidermy in all its branches.

Spratt's Patent Dog Biscuits.

Repairing of all kinds.

For Rifle and Shot Gun Practice.



DENNISON'S TARGETS. 25 to 1000 yds. range Target Pastors and Score Cards.

Targets & Pads For testing the pattern and penetration of SAOT GUNS.

Sold by Dealers in Sporting Goods.

DENNISON & CO.

193 BROADWAY, NEW YORK.

Sept 6 Am.

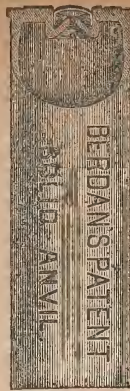
DECOYS.

M. G. WELD.

Manufacturer of Decoy Ducks, Blacks and Malted, 16 inches long; 50 cents each; nice ones.

87 MANHATTAN ST., Rochester, N. Y.

E. THOMAS, JR., GUNS, PISTOLS, SPORTING GOODS, 174 South Clark Street, Chicago, Ill.



Paper and Metallic Shells

Breech-Loading Shot Guns,

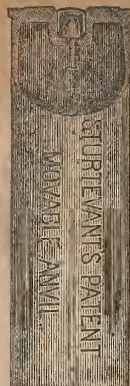
Manufactured by the UNION METALLIC CARTRIDGE CO., BRIDGEPORT, CONN.

THE STURTEVANT SHELLS are the easiest reloaded. Do not have to unscrew the head nor use aawl to remove the exploded caps. THE PATENT MOVABLE ANVILS, made of steel wire, will not bend or break.

THE BERDAN PATENT SHELLS, new model, with Hobbs' patent waterproof primers, never misfire, and are highly prized by all that have used them.

PAPER SHELLS.—By repeated experiments and great outlay for improved materials, and machinery made expressly for the purpose, we can now warrant our BROWN PAPER SHELLS equal to any imported. They are sure fire, and will not burst in the gun.

Inquire of any of the dealers in sporting materials for the U. M. C. Co.'s Shells. Not sold at retail by the manufacturers.



"St. Louis Conical Base Paper Shell."



Having made important improvements in our Shell, we can safely recommend them as equal, if not superior, in quality to any Paper Shell manufactured in this country or in Europe.

Among the advantages claimed for these Shells, are: A saving of 25 per cent. in the use of powder; also the great decrease in recoil. The sizes made are No. 10—2 1/2, 2 3/4, and 3 inches; No. 12—2 1/2, 2 3/4, and 3 inches. Longer

Shells will be made at extra cost. They are not malleable. Sample, 100, sent by express on receipt of \$1.15 for No. 12; \$1.30 for No. 10. Factory and office, No. 2, 289 De Kalb street, St. Louis, Mo.

St. Louis Patent Shell Manufacturing Company.

TO SPORTSMEN IN GENERAL!

Headquarters Bohemian Glass Works, 214 PEARL STREET, NEW YORK.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the service of that well-known Sportsman,

IRA A. PAINE,

to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell. In offering this new ball to the public it will require very little introduction, as in no instance where it has been exhibited has it failed to take the place of all others, and is to-day the only perfect substitute for a bird in use.

The following is from the New York Herald, Sept. 1:

THE BRITISH VISITORS RECREATING AT ELM PARK—A TRIAL AT GLASS BALL SHOOTING.—The visiting riflemen, accompanied by Judge Gildersleeve, Col. John Bodine and Mr. L. M. Ballard, all of the American Team of 1875, arrived at the Park a little before eleven o'clock, and practice shooting was at once commenced. The shooting at glass balls sprung from a steel trap, instead of live pigeons as in Europe, was a novelty for the Englishmen. Mr. Ira Paine, who has invented the "feather balls," furnished them for the occasion as a compliment to Judge Gildersleeve and his friends. This style of balls gave during the afternoon such satisfaction that after the shooting was over the West Side Gun Club held a special meeting to adopt them, ordering 1,000 of them forthwith.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300 or boxes of 500. Send for price list. We intend offering special inducements to the trade.

Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

SPORTSMEN'S CLUBS AND AMATEURS.

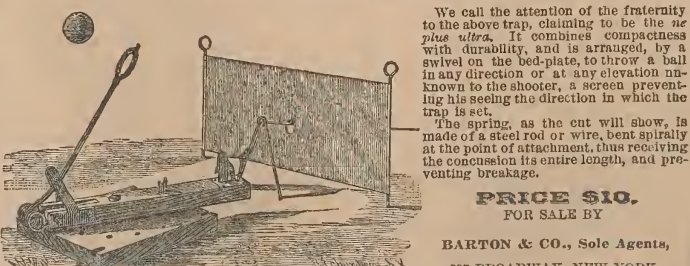
THE PATENT ROUGH BALL—The only Ball that will break rare when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 13, 1877.

Geo. E. Hart & Co.,

NEWARK, N. J.

TRADE SUPPLIED.

HUBER & MERWIN'S CHAMPION BALL TRAP.



This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP, for durability and perfection of its operation, superior to them all, and take pleasure in recommending the "Champion" to sporting clubs and my friends. (Signed) IRA A. PAINE, Aug 9 ly

PRICE \$10.

FOR SALE BY

BARTON & CO., Sole Agents, 837 BROADWAY, NEW YORK.



THE GREEN GUN has the simplest and strongest snap-action made. The proportions and finish, the shooting qualities for penetration and pattern, are not excelled. Can bore to make any pattern ordered, from a cylinder to a full choke. Muzzle-loaders altered to breech-loaders, with same action as new guns. Barrels bored to shoot close and strong.

Price \$45. Re-boring and repairing breech-loading shot-guns done promptly and in the very best manner. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Aug 30 ly

Sportsmen's Goods.

W. H. HOLABIRD, Manufacturer of

Specialties in Clothing FOR SPORTSMEN, Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, water-proof and first-class in every particular, sent by mail post-paid, \$5.

Holabird's New Game Bag; weighs 12 ounces. The most convenient and coolest garment ever offered to Sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2.

Holabird's New Cardigan Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style.

Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods.

July 12 17

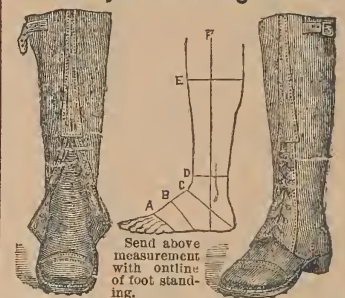
Florida Outfits.

PORTABLE BEDS, CAMP STOVES, LOUNGES, TABLES, BOATS, Etc., Etc. FLORIDA FISHING TACKLE, manufactured on purpose to withstand the heavy fishing.

The NEW PORTABLE TABLE, forming a lock-box, 30x5x4 1/2 inches. Price \$8.50.

W. HOLBERTON, Sole Agent, P. O. Box 4, 108, 102 Nassau Street, N. Y. Sept 27

THOMSON'S New Style Hunting Boots.



Has all the benefits of Top Boots, and ease and comfort of Laced Shoes. Watertight to the top. Send address for descriptive card.

THOMSON & SON, 301 Broadway, N. Y. P. O. Box 1,016.

THE '76 SHOOTING COAT. (PATENTED)

The largest variety of Shooting and Sporting Garments, in the World.

Send for Illustrated Catalogue. GEORGE C. HENNING, Washington City. Feb 23 17.

Founded July 4, 1803.



Thos. W. Sparks,

Shot & Bar Lead

MANUFACTURER.

Office 121 Walnut Street, Philadelphia.

Magic Lanterns and Stereopticons.

E. & H. T. ANTHONY & CO., 531 Broadway, N. Y., opposite Metropolitan. Stereoscopes and Views; Graphoscopes, Chromos and Frames; Albums, Photographs of Celebrities, Photographic Transparencies, Convex Glass, Photographic Materials. Awarded First Premium at Vienna and Philadelphia. dec 25

B. GREENWOOD,

Manufacturer of Aquarium Greenhouse and Aquarium Cement, and dealer in Fish Food, Gold Fish, Water Plants, Fish Globes, and squares stock of all descriptions. Canaries, Cages, Insect Baskets, Bird Houses, Sea Shells, etc., wholesale and retail.

Nos. 113 to 13 COLLEGE PLACE, Near Murray St. New York, N. Y.

# FOREST AND STREAM

## ROD & GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year.  
Ten Cents a Copy.

NEW YORK, THURSDAY, OCTOBER 11, 1877.

Volume 9.—No. 10.  
[No. 111 Fulton St., N. Y.]

### THE LOST HEIR.

Selected.

"Mr. Penguin, an egg!" "Good gracions! my dear, Where is it?" "Don't joggle. Right under me here."

"In the nest that we made?" "We? Isn't that fun? I built it of stones, and you brought me just one Extremely small pebble the day it was done."

"But the egg—are you certain?" "As sure as can be; So get ready this moment and start for the sea; There eat and grow fat, and your pouch fill with food Of the kind that will strengthen and nourish our brood."

"Our brood?" Why, you said there was only one egg."  
"The landlord skins the tenant, the tenant skins the land, and they both get poor together." The large estates are now all subdivided and rented out to working men, who, in a few years, make that a sterile patch of land, which once was prolific soil. It was a fine country for a gentleman and landed proprietor to live in, for a life of ease was his; but had you been a poor white, better never have been born, for the gulf that separated Dives from Lazarus was never so deep and broad as that between the planter and common white.

"Methinks I can see him becomingly dressed  
In a little dark coat and a little white vest,  
With cunning wee flippers, eyes wondrously keen—  
The handsomest penguin that ever was seen!

"At first his short steps I most carefully guide,  
Then graceful and haughty he walks by my side,  
Like a prince among birds, with his head carried high,  
And the sea-fowl who gather to see us go by  
Are ready, my dear, of sheer envy to die!"

While she spoke, a small bird, much resembling a crow,  
Peeped over a rock at the picture below,  
And he danced like an imp, and he wagged his head,  
And he grinned such a grin when he heard what she said,

And he laughed a strange laugh, without making a sound,  
And he flew from the rock to the nest on the ground;  
And behind Mrs. Penguin he crept like a snail,  
And jerked a long feather straight out of her tail.

Then, as quickly she turned, he as quickly took wing,  
While she screamed, "Oh, you robber! you hard-hearted thing!  
Oh, Penguin, how can you, how dare you, stand there  
Like a fowl made of marble, and heartlessly stare?  
Don't you see what he's got? I am mad with despair!"

But, alas! all in vain did she threaten and shriek;  
Crow was off with the egg sticking fast on his beak;  
And Pen remarked, calmly, "Next time 'twere as well  
To say naught of your son till he's out of the shell."

—Harper's Weekly.

### The Dunmore Meet.

A VIRGINIA FOX HUNT OF TO-DAY.

"To learn to shoot your gun sure;  
To fight the game cock, to chase the fox;  
Or to win at the Piedmont races;  
To kiss your wife; or take your life  
At twelve or fifteen paces;  
With wine for more, but whiskey galore;  
Oh that's the man for Dunmore."

WITHIN less than a radius of a hundred miles from the National Capital, in the Old Dominion, lie the three contiguous counties, Fairfax, Prince William and Fauquier. In the good old olden time, when the hoary headed old grand-sire, who now sits pensively in his split-bottom chair under the shade of the ancestral oaks, was but a little freckled-faced youngster running wild over the plantation, these three counties were the garden spot of Virginia. In my "Sportsmen of the Olden Time," which was published in the FOREST AND STREAM of Oct. 5, 1876, I portrayed the easy life of the planters in the section I write of, and, although that epoch was before the Revolution, yet the immense estates, the numerous retinues and the profuse style of living were kept up until the beginning of our late Civil War.

In the year 1861 the Piedmont region was a land fair to look upon, broad estates joined each other, and were cultivated thoroughly by the scores of field hands. Each plantation was a colony in itself, and had its blacksmith, wheelwright and carpenter shops, spinning, weaving and tailors' rooms, all surrounding the pretentious mansion, and giving to the place an air of a thriving village. It cost but little to live then. Cattle and sheep were raised in large numbers on the estates. His own mill ground the farmer's wheat into bread, and each planter had his own private still, and his cellar was filled with apple-jack and generous pure peach brandy of his own brewing.

Every housewife took particular pride in her garden, her fowls and her dairy—the latter of which was under her own

especial charge—and the house was furnished in profusion all the year round with their products. Naturally it took but little ready cash to live in elegant and liberal style. The thousand and one little things that now cost money were to be found upon the place as a matter of course, and the money accumulating from the harvest was spent lavishly at the watering places, where the planter and his family went every summer.

In those days the life of the Virginia country gentleman was very pleasant; his prolific acres grew annually richer and increased in value. Such was the contrast with the present time, when, as Gov. Wise once wittily expressed it, "The landlord skins the tenant, the tenant skins the land, and they both get poor together." The large estates are now all subdivided and rented out to working men, who, in a few years, make that a sterile patch of land, which once was prolific soil. It was a fine country for a gentleman and landed proprietor to live in, for a life of ease was his; but had you been a poor white, better never have been born, for the gulf that separated Dives from Lazarus was never so deep and broad as that between the planter and common white.

Fox hunting was the popular pastime of the Virginians, fighting the cock was considered rather disreputable, and men would indulge in it as they did in their loved recreations of old sledge and draw poker, go off by themselves, have a stag party and say nothing at all about it. Early in the morning the "marster," as he was called, would ride over the plantation, and in an hour or two his work would be done. The rest of the day was devoted to his horse, his gun and his hounds. Each gentleman kept as much blooded stock as he could afford to hold; and his kennel was visited as regularly as his stable.

It has always been an open question with economists and philosophers as to whether progress and the immutable change, is after all a benefit to the human race. To the young on the very threshold of life, it doubtless is, the future is to them a roscate hued land, a veritable realm of promise, and to their ardent minds the successive changes are eagerly welcomed, and the future beckons alluringly to them as the fabled Evadne to the storm tossed Argonauts. Their past has no thought, no regret. To those who have reached or passed the magic age of thirty, that middle post in the race course of life, the case is different, and they learn to know that anticipation is after all sweeter than realization. Only when experience tempers their passion, and disappointment blasts their hopes, then it is that they linger over the past, and sigh for the glorious long ago. I never go to a fox chase now that I do not recall regretfully the splendid "meets" of my boyhood days.

However much the country may have been benefited by the events of the past fifteen years, it has certainly not improved fox hunting, and there are many ancient sportsmen who so devotedly love their calling that they would rather have the sport as it was in the days of its pristine splendor, than even the blessings of a national debt, a paper currency or the liberated, though ungrateful, African.

Fox chasing is now shorn of many of its former attractions. No open house with hospitable doors thrown wide, no brilliant hunting dress, or famous thoroughbred barb; no succession of miles of tilled fields, where the pride of the stable could go in a sweeping gallop, leaping the fences with the long Arab stride. No, a meet of to-day is a very common-place affair, with no accessories of the pride and pomp of the old glorious chase.

Last winter, a few days after Christmas, I received the following epistle, which will explain itself:

DUNMORE C. H., Va., Dec. —, 1876.

MY DEAR FELLOW: Where have you been keeping yourself? Not a sign of you among the scenes and faces you were once wont to love so well. Still, if you are not ill or dead, I know you will accept the invitation which I am commissioned to send to you. There will be a grand meet at Dunmore C. H. next Saturday; all the good riders for miles round will attend; and there will be some crack dogs from a distance. Come a day or two before the meet. I can give you a fine mount if you are not already suited. Faithfully yours,  
DOUGLAS.

Dunmore C. H. is situated in the middle of the Piedmont region, and has the fastest men and the best riders of the whole country. Douglas, the writer of the letter, is a thorough sportsman some thirty years or so of age, who keeps bachelor hall, and has ruined—so the young wives and old mothers say—nearly all the youths in the section. He is one of those men who do every thing well; spars, fences, shoots, rides,

and is besides, as the girls say, the tenderest wooer in the whole region.

Of course I accepted this invitation, and the next afternoon found me at my friend's. Night found us at the tavern, where the village magnates and the huntsmen sat around a big stove in the centre of the room. In their talk of the chase and of sporting reminiscences they stretched veraciously very far, and I heard of longer runs, higher leaps, and more wonderful dogs than were ever before chronicled. The more they talked the thirstier they got, and as the means to satisfy thirst was close at hand they imbibed much and often, and the more they drank the faster flew their tongues; and as the potent liquor mounted to their heads and fired their imaginations, they told wilder yarns and more atrocious lies, and swore to them too; then they would drink again, and the "ruby wine," as Dick Swiveller would call it, began to flow like water. All friends meeting after a long time, must, of course, drink to each other's health; new acquaintances just introduced must tip their glasses; men with money in their pocket, in a generous mood treated all their friends, and as the night waxed apace everybody was drinking with everybody else. About midnight some old soaks, veterans of a thousand drinking bouts, proposed to lock the doors and make a night of it. This was carried stormily, some few strongly protesting, but the door was shut. A big iron kettle was placed on the stove, and quiet reigned until the keeper brewed a huge pitcher of punch, made with Virginia's own apple-jack, and then the crowd quaffed long and deep, and the fiery liquor began to show its work in the wild eye, unsteady gait and thickened speech. Then all broke into a Bacchanalian chant, each man on his own hook; and so the debauch was kept up, the revel growing madder and madder until a real Saturnalia was in progress. I had seen enough, and left about two in the morning, pausing as I passed through the door for another look. The scene was one that a Cruikshank or Darley would have delighted to picture. Here were a trio of old fellows as happy as lords, singing away at some ancient song that had died out a half century since; next to them was a young man, whose head was probably weak, for he had pitched forward, and with his head resting on the table he was peacefully snoring away in the midst of a din fit to wake the dead. There were half a dozen young bucks singing a love song, and nearly a score more talking, singing, discussing, disputing and arguing at one and the same time.

The next morning broke cloudy with a light wind, a perfect day for a hunt. Daybreak dawned, but the village reposed in absolute quiet, and the huntsmen appeared not. Nor was it until the mantle of night had lifted, and the gray dawn had melted into day, long after the villagers commenced their daily routines, that the huntsmen came forth, sad-eyed, heavy-browed, and drowsy. Those who were on time waited anxiously for the others, but it was nearly nine o'clock before the cavalcade started; and such an assemblage of steeds was never seen since Lee's army surrendered. There was Bill Thomas mounted on a three-year-old colt, that kicked and bit at everything within her reach; and there Ned Malone bestrode an old piebald, eye-necked mare, which carried her head so high in the air that Ned couldn't be seen from the front; Dick Martin was well-mounted on a thoroughbred of great power and endurance; Will Coxson on an old plug, some five-and-twenty years old; Richardson sat perched upon a quaint old rip of a mare that wheezed and coughed at every step. Others there were who had splendid horses, who could leap any ditch or fence in the country. Broadwater had a mare which showed her noble blood in every motion and quiver of her sinewy form, and I saw at a glance that if the race were to be a long one, and Broadwater knew how to manage his animal, the odds were heavy in his favor. John Thomas brought up the rear with a steed whose equal mortal eye never rested upon. It was the veritable ghost of an old Confederate charger, whose sides resembled a patent beefsteak broiler.

The dogs were of all colors, sizes, breeds and conditions. The blare of the horns, the shouts of the huntsmen, and the yelping of the hounds, brought out every cur in the village to join the chase, and the whole good village of Dunmore was in an uproar. As the procession passed out, windows were raised, doors opened, and disgusted sleepy faces appeared inquiring the cause of the row. Out in the fields a halt was made, and Will Coxson, the "master of the hounds," ordered every cur of low and high degree to be clubbed and chased back into the village, but just here it was discovered that the

jug of whisky was empty, and as the air was raw and biting, a squad were deputed to go to Powell's and get it refilled. Two volunteers departed on this mission, but they stayed away so long that a certain ill-defined suspicion was felt by the waiting crowd, and another deputation was sent out, who found the two worthies, with the jug, reclining beneath a hedge. Before their return the curs were all joined in a promiscuous fight, while the huntsmen watched the scrimmage with interest, betting drinks on the result. Just at this period an old Mollie cotton tail—*riddleeet*, rabbit—jumped up close by, and away went curs, hounds and huntsmen in a regular scrub race. Devil take the hindmost. It was a glorious chase across an open field, and the hounds' deep tones, mingled with the frenzied yelping of the short-legged, stump-tailed mongrels, who found that in spite of their best running they were falling behind; while the riders were so enraptured with laughter at the absurd spectacle that they almost rolled from their saddles in the ecstasy of mirth. The old hare, running for her life, cleared the ground in such fine style that soon none but the hounds had the trail; but in about ten minutes poor Mollie was overtaken, and gave up the ghost.

Now began the serious business of the day. The leading hounds were rebuked for chasing a rabbit and then sent out right and left in the newly cleared woods. Soon staunch old Silvertongue gave forth a challenge which was answered by the others, and as the scent became warm their united bay rose grandly in the air, making

The welkin answer back  
And tetch shrill echoes from the hollow earth.

Across our right, a half a mile away, the fox could be seen making for a dense cover. The cheery cry of the master was heard, and away we went to place the hounds on Reynard's trail. We found the pad of the fox plainly imprinted in the soil, when calling to the pack and pointing to the track, they followed hard upon him in the dense coppice, which we ourselves could not penetrate. By direction of the master we scattered a half a mile or so on either side, and followed on. The hounds were now in full cry, and we feared the game would be mobbed in the woods and all our sport lost; but it was a cute old fox, a red one at that, who evidently had been run before, and knew his business. "He's bound to break cover," said Broadwater; "it is too hot for him in there." "He won't leave until the last moment," answered Richardson, "for he knows his safety lies in those thickets." "That's so," said Wilcoxon, coming up; "boys, I've chased that 'old red' before, and he will give us the best run you ever saw. I am only afraid he may climb a tree or go into some hollow. Hark! there's a check now!" and so it was, the dogs had lost the trail. All was perfect silence, and we listened as eagerly and excitedly as ever we did in a skirmish line in the Wilderness in '64.

"Now we are all right," sang out Malone, "there's old Music's challenge." The other hounds closed up, and then broke into a full cry again, and out from the cover they went, tailing beautifully across a narrow open meadow into the woods. Putting spurs to our horses, we followed, neck or nothing, several getting some ugly crushers as they went, but, mounting again, kept on. Into the woods, riding like mad, swinging our limbs and ducking our heads, we rode like Mazeppa, with the rushing pack in front instead of behind us, and the cheers of the riders, mingled with the stirring tones of the horns and the baying of the hounds joined grandly together and floated through the forest aisles.

"While all the wooded hills reply  
To hoof-slang, hound and hunter's cry."

The hounds soon left us behind, and we followed recklessly enough in their wake, and were beginning to fear that we would not be in at the death, when suddenly the full cry ceased, and the baffled notes of the hounds were heard. We soon came up and found the pack cold hunting, and clearly at fault. The master then examining the ground was non-plussed, and many reasons were given as to where the "old red" could have gone. The ground was open, and could not have concealed a rabbit, and yet his foxship had vanished. Many were the conjectures; some said he had climbed a tree, others that he lay skulking under the leaves, whilst one profane individual even asserted that he was gone to the devil. All this time the master was busily engaged examining the ground, it was an oak grove with no underbrush nor thickets. An old worm rail fence ran through, marking the boundary of a farm. The master placed a dog on the top of this fence; the hound instantly gave tongue, and the whole pack began to climb the fence. "Hurrah, boys! Mount your horses; the old fox has climbed the fence and headed back!" And so it proved; when in full run the fox had scrambled the fence, ran along the top of it and doubled, leaving the whole "meet" utterly balked by this artifice. We retraced our steps, the hounds running on either side of the fence, when just at the corner of the woods the pack struck the scent and were off again on the back track. In a few moments they trailed Reynard back into the very thicket from which he had originally started.

We could hear them searching for him; but if he was in there he was evidently lying close, for except an occasional yelp not a sound could be heard. It was very depressing, and many gave up, saying that it was simply impossible to start him from cover the second time, as he probably had his den deep down in the earth. As it was late, about two o'clock, and dinner hour had arrived, more than half the huntsmen returned to the village; and only too soon, as the sequel showed.

Calling in the hounds, and keeping them close, the master sent several outriders to see if they could hear anything of the fox. Within four minutes one of them came tearing back, saying that a farmer had seen the fox cutting across a field about a mile distant. We lost no time in galloping to the spot, and the hounds were sent to search, and soon old Silvertongue, throwing his head high in the air, gave a melodious note, and then darted off like an arrow with every dog after him. It was evidently a burning scent, so strong that the hounds were running breast high. We followed at full speed through some low swampy ground, when suddenly John Thomas's plug stuck fast, and to John's whips, frenzied kicks and yells, old Reb, for such was his name, gave only a series of dismal, almost human, groans. "Good-bye, old Stick-in-the-mud," shouted Malone as he swept by, leaving John almost crying from vexation. Across the field a half a mile away the fox could now plainly be seen heading for some imber. A deafening cheer burst from the horsemen, and spurs were driven deep into the heaving flanks of their steeds. Across the field was a stake and rail fence with a ditch on one side, "a real cropper." As we approached it each rider seated himself more firmly in his saddle, held in his horse, and then attempted the leap. Nearly all were old cavalymen and understood their business well, and all but three or four accomplished the feat in safety. One got a crashing fall, and lay stunned in the ditch; another was pitched over the fence, clearing it himself

in splendid style, but not carrying his horse over with him. Douglas's horse fell headlong, so did mine, but neither of us was hurt. Bill Thomas' young colt craned, and threw Bill backward over her rump into the soft mud, and quietly started for home. Bill, full of rage, pursued, hurling stones, sticks and curses at her departing form.

The excitement was now intense. Each face glowed; each lip was compressed with determination, as in the olden times, when they charged with Ashby in the Valley, Stuart in the gorges of the Blue Ridge, and Hampton in the Slashes of Hanover. Another fence, and half the horses broke down, and the best mounted kept on. The pace was terrific, and the fox in plain sight, about two hundred yards away, running for his life. There was no time now for his artifices; it was a square question of fleetness and endurance, and Reynard flew on as straight as a die, the whole pack running "mute," for the scent was so heavy, the game in full view, and the gait so fast that they could not give tongue at all. A yawning ditch and every horse fairly tried it, but only four out of the dozen leaped. Blood was telling now. No common horse could keep up the strain of running through swampy, muddy land, fetlock deep, and taking every fence and ditch as it came. No sound was heard save the rap of the flying hoofs and the quick breathing of the horses and dogs. Fields sped past us in the mad chase; farm houses darted past; little patches of woods came and spun off; trees reeled aside, and the pack of hounds, their bellies nearly touching the ground, their hungry eyes fastened on the running fox a hundred yards ahead, pursued, in desperate eagerness, their prey. A half mile further on and another fence barred the way, and the huntsmen again faced their falling horses for the leap. Vain! vain! Broadwell's thoroughbred cleared it and kept on; so did another. Dick Martin's stallion leaped, knocked off the top rail, fell, recovered himself, and dashed on. It was glorious to see the hounds jumping over one after another; but the huntsmen could not follow, and they watched with vexation and envy the three successful riders disappear. The poor fox was now sinking fast. His tail hung drooping behind, but still he made frantic endeavors to escape. It was a wide field, with neither bushes nor stone, and as level as a parade ground. The hounds were not fifty yards behind, old Silvertongue a yard in advance, with bloodshot eyes and hanging tongue, his little, sinewy body stretched to its utmost tension. Broadwater in front, his thoroughbred, with ears back, running like a race-horse on his last quarter stretch; and behind, each rider, with bent body and steady rein, followed on. Poor Reynard's moments were numbered; his bribe was dragging the ground, and Silvertongue's red, yawning mouth was within a few yards of him, when seeing that the game was up, he turned and stood at bay. A rush—the hurried snapping of two scores of jaws; a confused, struggling mass of dogs, piled writhing, snapping, biting upon one another—and the day was over. Broadwater reached the scene first, and by a free use of voice and whip stopped the battle, and held up the mangled body of the fox, while his cheer of triumph rang through the evening air.

Exhausted and hungry we wended our way back to Dunmore, where a piping hot dinner refreshed and soon restored us. Pain would I write of a grand ball, where bright eyes, waving tresses, ruby cheeks, brilliant smiles and swaying forms, keeping rhythm to the sweet strains of the band, repaid the wearied huntsman for his toils. All this would be very poetical, but alas, it was not our luck. Dunmore is not famous for its beautiful women, and as for the musicians, they were not.

The "Dunmore Meet" was over, but ah me! the consequences that ensued from that unlucky fox hunt! In the first place the hunt brought to Dunmore Court House a young city fellow who must needs fall in love with a Dunmore belle. A misunderstanding with her suitor occurred, and the result was a duel and a bullet through the stranger's shoulder. More unfortunate still, Bill Thomas caught a cold, which merged into a violent attack of rheumatism, and drew his leg up so that one limb was now six inches shorter than the other, and Bill hops about on crutches to this day. Then Dick Martin went home drunk that evening, fell helpless in his stable, was kicked in the back by a mule and confined to his bed for a week. John Thomas' old mare died from the effect of the unwanted gallop; that gallop was too much for her, and she breathed her last that night. John used to say that if he could cheat the buzzards he would make his corn crop next summer sure. But alas, John's babies may cry for bread, but their wallings will be as unavailing as the frenzied yell of the *sans culottes* in the days of Marie Antoinette. Then, most melancholy of all, there was a youth, one who could not touch liquor without being crazed. He had signed a temperance pledge and was engaged to be married to as sweet a little specimen of femininity as ever trod a number one shoe. Well, this modern Amadis got drunk at the meet; his Phyllis took him to task, a fierce quarrel ensued, and Amadis banished himself to Texas, leaving the broken-hearted Phyllis to deplore that meet, the liad of all her woe. All these evils and many more came from the "Dunmore Meet." To offset these woes, Broadwater has the fox's tail, and if, of the readers of FOREST AND STREAM, some should moralize that a fox's brush is but a papyrus return for maimed limbs, ruined steeds and sundered loves, I at least have fulfilled my task, and have faithfully pictured a Virginia fox hunt of the present day.

ALEX. HUNTER.

#### FOUR DAYS IN A ROB ROY CANOE ON LONG ISLAND SOUND.

MY boat was a fourteen feet, oak-hulled, cedar-decked canoe of the orthodox Rob Roy pattern, carrying a lug-sail, and weighing complete about seventy-five pounds. She was built by Searle & Sons, of Lambeth, near London, after the construction of the original MacGregor canoes. A weight of seventy-five pounds is unnecessary; Wm. Jarvis, of Ithaca, N. Y., can build fully as seaworthy a boat, fitter canoes lighter. The cargo of the "Star" consisted of a night-shirt, a pair of socks, one handkerchief, necessary toilet articles and smoking materials. All of this was packed in a water-tight rubber bag, one foot by one and a half—a capital article for this purpose. The last and most important part of the outfit was an U. S. Coast Survey Chart of the Sound. Another rubber bag of cargo had been prepared containing such luxuries as a pair of Indian moccasins, some potted chicken, a nip of brandy, etc., but unfortunately it was stolen before starting, and greatly missed. The uniform of the captain is easily described: old flannel trousers, older flannel shirt,

oldest flannel shooting jacket and a prehistoric wideawake. The necessity of leaving behind everything that is not absolutely necessary cannot be too rigidly impressed on the prospective canoeist, for, when paddling against the tide and perhaps a head wind, an extra pound is a great deal.

It is 3 P. M. on Wednesday, July 11, and I am ready to start; foot, bottom and back boards are adjusted, with cargo bag fastened so that it cannot shift. The mast is stepped, and the sail furled, as there is no wind, and the little red and blue burgee hangs idly at the masthead. The chart is rolled up and shoved between the footboard and the deck, where it is least likely to get wet, and with a hearty handshake and a "Take care of yourself" from my cousin and chum, P. T., I push off from the foot of Harlem Bridge, and as the water covers my blue-bladed paddle for the first time, I try to guess how many times it will dip, before I get to Bridgeport, seventy-five miles from here along the shore, and wonder what strange things are to happen to me before Saturday; for I must be at my destination at 4:50 on the afternoon of that day, that I may catch the train which is to take me up into the Berkshire Hills to rusticate for a couple of weeks before returning to town and to business.

I believe all canoeists will agree with me that there is a certain feeling of freedom and security in a canoe which is not felt in any craft short of a yacht, and I do not think that there is any solitary pastime which is less lonely than canoeing. I do not mean to say that it is not desirable for two men to go on a cruise together, but I do say that the opportunities for observation and thought offered to a man on such a solitary cruise are not to be overlooked, particularly when the trip lasts but a few days.

But I am getting out of the course, and am forgetting that I have passed the docks of the Harlem water front, and am now battling with the adverse tide in the Bronx Kills, north of Randall's Island. Might is right here; the current is soon vanquished, and my little craft steers straight on, leaving the North Brother on the port hand, and the South Brother and Riker's Island on the starboard hand. There is a game of bare ball in progress on Riker's Island. Somebody sees me, and all hands stop to halloo. "Halloo, yourself," I answer back, which, if not true eloquence, is at least to the point. And so I paddle on, stopping for a moment here to chaff the skipper of a passing lighter, resting there on my paddle to get some information from some one on shore, until finally touch at Whitestone. Here rest for an hour, and some picnicers near by stroll down to the beach and ask numberless questions while I am lurching. They are very kind, and one of them goes fully a quarter of a mile to get me a dipper of water, which you may be sure is gratefully quaffed.

Off again, for it is late, and I must make Sand's Point before dusk. Right under the guns of Fort Schuyler the little "Star" rocks on the swell of the steamer Bristol, and then I dash on past the Stepping Stones light, and get a good view of City and Hart Islands off the port beam. Manhasset Bay is covered with vessels at anchor, and is tinged here and there with the color of the setting sun; a more beautiful sight could not be imagined. Sand's Point at last, and there is the hotel not two hundred yards from the beach. A darkey is procured, and between us we carry the canoe up and on to the piazza. The jolly proprietor has given me a big room on the ground floor, and has ordered a specially good dinner, which disappears like chaff before the wind. What is pleasanter after such a day than lying quietly in a hammock, smoking and thinking of nothing in particular? It is a well-earned lazy enjoyment, and in its way is perfect. Later on in the evening mine host invites me to join him in a jorum of Sand's Point punch, the potency of which is marvelous. Some of the guests, who have been dancing upstairs, come down and join in, and it is fully midnight before I am permitted to crawl under my blanket to dream of the next day.

About sunrise is the right time to start when traveling in this manner, so that one may accomplish a good half of the day's work before ten o'clock. The hours between ten and four are wisely employed in eating a light lunch, taking a nap, or walking, which is advisable, as the canoeist is apt to get cramped if his legs are not exercised a little. To-day, however, I am destined not to carry out the above good rule, for, half awake and half asleep, I hear somebody playing a fiddle solo on my door, and crying, "Nine o'clock, sir; breakfast is ready." To dress and eat does not take long, and in an hour's time I am on the water again. The ladies on the hotel porch wave a farewell as I slowly paddle past the point and on to the broad sound. There is not a ripple on the water and the sun is beating down; but we have no time to lose, so I shape a diagonal course for the main shore, stopping only on the shady side of a becalmed coasting schooner to cool off and ask the skipper what he thinks about the wind to-day. We have a long confab, at the end of which he asks, "Air you doin' this on a stent?" Evidently he does not consider canoeing a pleasure.

The picturesque New York shore along here is studded with villas. I will stop at one, where the lawn slopes down to the water's edge and a wharf runs out invitingly, to ask for some water, and then I row in under the pier where, in the cool and shade, a smoke is indulged in. Presently some ladies come down and encamp themselves right over my head. They see the smoke curling up between the boards and smell it, but cannot imagine that anybody should be underneath, and are consequently in a great flutter, which subsides into much laughter, however, when I dart out. The wind is coming now in lazy puffs on the port beam, so up goes the sail, and with the sheet in the weather hand, and steering with the paddle

on the lee side we bow along opposite Captain's Island, when the swell of a passing steamer lifts the "Star" and drops her on a rock. The shock is severe, but subsequent examination proved that no damage had been done to her hull. The wind is freshening up as I pass Greenwich Harbor, and I am making excellent time, meanwhile lying at nearly full length, with my head resting on the back board and feet on deck, eating fruit, munching hard tack, and smoking, until I pass Greenwich Point, a few miles further on, where I let go the halliards, for it is not worth while to beat into Stamford Harbor, where I have decided to stop for the night. Unhappy thought that; let no canoeist stop here. The harbor is wretched and uninteresting, besides being very long; and the two hotels are over a mile from Van Tassel's boat-house, the only place where one may leave his canoe, and where, by the by, our purser was shamefully swindled by the said Van T. Six small boys, walking Indian file, and each one bearing triumphantly some article from the "Star," pilot me to the Stamford House.

Friday I wake up at about eight o'clock, feeling much more cheerful and charitably inclined than on the previous evening. A few letters are written to expectant and anxious friends, breakfast is disposed of, and the same half dozen small boys escort me back to the boat-house, where quite a crowd has assembled to see us off. To launch is the work of a moment, and as I get under way, I find that some of the Stamfordites, who are curious to see how the "Star" will behave in a sea-way, are to accompany me to the mouth of the harbor in single-scaulls, rowboats and cats. There is quite a breeze from the North, which enables me to go out before the wind in grand style, to the delight and astonishment of my friends, who had not thought it possible for so small a boat to do so well under sail. Talking and laughing, we soon reach Shipman's Point, at the entrance to the harbor, where, with a cheer and a goodspeed, I am left to pursue my way. I have since learned that there is a good hotel on the east side of this point, quite near the water, which might save canoeists the annoyance of stopping at Stamford.

This morning is much the same as yesterday afternoon, just enough of a breeze to make it exciting, and to moderate the heat of the sun, which would otherwise be unendurable. There are quantities of small craft darting about, and I am many a time hailed, "Whither bound?" and often asked, "What kind of a boat is that?" But it remains for some one in a small yacht anchored off my starboard quarter, to hail me, "Canoe ahoy!" This is rather strange, as it is the first time the "Star" is hailed as a canoe, so I ease the sheet and bear down to see who it is that calls my craft by its right name. It is one of a couple of Englishmen, a canoeist himself, and who takes me for a countryman of his, for he says: "I didn't think anybody knew what a canoe was, in this country." They are, both of them, nice fellows, and I leave them only after having had lunch with them. As a reminder of the visit they kindly press on me a bottle of beer and one of hard cider which are destined to come in very handy later. As I reach Norvaton Point the wind dies out, and the sun's rays scorch so mercilessly that I decide to stop here until sunset. This decision is the more hastily arrived at, as I can see a picnic grove where hunger may be appeased, and perceive a number of young ladies, evidently city girls, who are spending the summer in the neighborhood, with whom after dinner it will be festive to converse. This delightful combination of the good and the beautiful is not to be resisted, so we make hastily for the shore. Among others who welcome me there is a big, jolly, goodhearted son of the sea, a Sound pilot, who, when he finds out what I am about and where the "Star" comes from and is going to, invites me to make his house my headquarters for the night. "I live in a snug little box on Taverna Island, about a mile out from here," says he, "and you shall be made as comfortable as a clam." I am about twenty-five miles from Bridgeport, but think that by getting up at sunrise the following morning I can manage it, so I accept the hospitable offer. We call each other Cap. and Commodore, and presently are as close friends as two peas in a pod.

Without any preliminary formalities I boldly approach several of the before mentioned young ladies—for that canoeist is a craven catiff, who needs an introduction to a pretty girl—and ask them if they would not like to look at the "Star." The bait takes, and presently I am surrounded by a dozen at least of the fair ones, and we pass a very jolly and wordy afternoon. At sunset the Commodore and I adjourn to his little island, which is just large enough to hold his house and no more, and sit down to a hearty dinner. A couple of pipes and a paddle out to Sheffield Island light-house finish the evening, and at half-past nine I am comfortably packed away for the night.

"Wake up Cap.," roars the Commodore outside the door, four o'clock Saturday morning. It is nearly an hour before sunrise, and I dress by candle-light, and slip down the ladder which serves as stairs, to find my kind host getting the breakfast ready. This meal is discussed, and the clock strikes five as I go on board the "Star." My friend will accept nothing for his kindness to me, so we pledge each other in what is left of the hard cider, and after he has given me some points about the currents, warned me to keep close to the shore, as it is going to blow great guns to-day, and giving me a package of luncheon, we part. Thanks to you again, Commodore, for your hospitality; among many inhospitable strangers you were indeed an exception.

Although the sun had but just risen, the wind was quite

fresh from the northwest, and, mindful of the pilot's advice, I try to weather the many islands which make up the Norwalk group, but somehow I cannot manage it, and every time drift off to leeward. With a stiff wind on the beam, and an ugly sea on, a canoe will always drift a good deal, but in the excitement of the moment, rubbing along with the spray dashing up from the bows, and the ice well combing flush with the water, I do not take much notice of this until when about twelve miles from Tavern Island, I notice for the first time, with horror and amazement that I have been making most fearful leeway, and am now fully five miles in a bee-line from the main-shore. What shall I do? The wind has been increasing so that now for my little boat it is blowing a hurricane and the waves every moment are breaking on the deck fore and aft, with an exceedingly unpleasant thud. There are but two things to be done, and one of them must be done quickly. Either run before the wind to the Long Island shore, some twelve miles away, or else paddle in the eye of the wind for the Connecticut side, for it would be madness to make it by trying to sail closer to the wind. My mind is soon made up to do the latter, for at all hazards I must catch that 4:50 train. With infinite trouble the mast is unstepped, and stowed away below, the rudder apron is well fastened around my waist, and off I go, steering straight for Greens Farms.

It took three hours of uncommonly hard paddling to accomplish these five odd miles, but it was grand fun, with just enough of danger to make it spicy. Here it was that the good qualities of a canoe showed themselves in a sea where no rowboat could have lived five minutes. Ever and anon a tremendous wave would wash over the Star from stem to stern, wetting me completely and blinding me with spray; and once the boat was actually lifted from the surface by the combined force of wind and water. Still, with all this, I made steady headway, never stopping to rest for a moment, nor, indeed, feeling a wish to. While still some way from shore I cross the bows of a trading schooner of some 400 tons, with only main, foresail and jib set. Her captain thinks I am in distress and shouts to me if I want assistance. Of course his kind offer is declined. We reach the land in safety. The water is dumped out of the boat (she had shipped about four buckets full), and the cargo bag is examined. Great guns! it has opened and is full of water, tobacco matches, etc., all destroyed. What an ugly sarcasm is a pipe and nothing to put in it! Luckily, amid all these misfortunes, the lunch is dry, having been carefully packed, and I proceed forthwith to dispose of it. Damages are repaired, and my clothes from having been wet are now so dried that they are only damp, and I embark again. But here I meet with another accident: Standing up to restep the mast I lose my balance, and, to prevent the boat from tipping over and filling, am obliged to jump overboard head foremost. It is only up to my waist, a few feet from shore, so I wade out. Still it cannot be helped, so I wring the water out of coat and trousers and push on, for too much time has been lost, and as near as I can guess it must be one o'clock. The wind has not abated a jot, and is still blowing directly off shore, but I am more careful now and have a glorious run, paddling and sailing, dancing along over the big waves past Southport harbor and Kensie's Point. Even with the chart before me I mistake Black Rock harbor for Bridgeport harbor, and do not discover my mistake until some distance in. The mistake is easily rectified. I turn about, dash through a marsh, and come into full view of the Bridgeport Park, which extends into the harbor on a neck of land. I am stared at hard by the people out driving and walking, and many young ladies wave their handkerchiefs to us as we glide past close to the bank. The good Bridgeporters on the water are quite as curious, for they all ease off or close haul their boats that they may see the novel craft, and ask us where it hails from. I am escorted in by two or three, and, at precisely four o'clock, weather-beaten, sun-burnt, and with face, hands, and in fact everything covered with a crust of white salt from the evaporated sea water, I touch at the float at the foot of the bridge, and my trip is at an end.

Accidents, however, never come singly, for when I came to fee the man who helped carry my boat to the depot, I was thunderstruck to find that my assets had disappeared. My two purses, one containing silver change and the other greenbacks, had fallen out of my pocket when I went overboard at Green's Farms. It is not necessary to say that I did not take that 4:50 train which I had worked so hard to catch, but was obliged to stay at Bridgeport until Monday morning, when I received remittances from New York. It is not out of place to speak here of the exceeding friendliness of the clerk of the Atlantic House at Bridgeport, who, when he discovered my damp and disconsolate condition, furnished me with an entire dry outfit from his own wardrobe until my own clothes had been thoroughly dried, and advanced money for current expenses. I thank him again here for his kindness.

Early Monday morning, knowing that it was low tide, and thinking it might be possible to recover some salvage on the Greens Farms beach, I went down there by train, and sure enough found my little coin purse intact and high and dry; the other had probably floated off.

A word about my canoe. Much has been said concerning the respective merits of the Baden-Powell and Rob Roy canoes. Never having used the former type, I cannot say much about them, except that over the Rob Roy they have the advantage of much better and absolutely dry stowing-room, and are perhaps slightly better sailers and sea boats. On the other hand,

the Rob Roy, if carefully managed, is as dry as can be wished for, her one sail is easily and safely managed, and her superior lightness, combined with her excellent model, makes her a much easier boat to paddle. These various qualities make the Rob Roy, to my mind, a much better boat for general work than the Baden-Powell.

If this account of my adventures in the Star does but induce one man to follow my example and take a canoe cruise I shall consider the time spent in preparing it well employed.

L. F. D'O.

For Forest and Stream.

THE SINNEMAHOING COUNTRY.

FROM the St. Lawrence River to the Rio Grande, I know, within those bounds, no better region for brook trout and ruffed grouse than that about the Sinnemaehoning River in Potter Co., Pa., the trout making up in flavor, numbers and game qualities what they may lack in size, and being nearly at the head even in the latter particular, and the grouse being in all respects unexcelled. Deer, bears, wild cats and panthers are also moderately abundant—or were in the happy days "befo' the wah." How, now, I cannot say. Wolves and the various fur bearing animals were also in moderate abundance. Ducks and geese were rare, wild turkeys unknown, and quail scarce. There were plenty of woodcock in season, and as to wild pigeons, they nested there, and darkened the air with their flight.

The Sinnemaehoning below the junction of East and First Forks I have known both as a raftman and sportsman. At the junction stood Bartran's house, where the wide mouthed fireplace, piled high with huge logs, gave the pilgrim as warm a welcome as he could desire. A short distance below was Barclay's mill, where the water, pouring over the dam twenty feet in height, left a space under the sheet of water next to the dam large enough for a man to go under. Here trout in endeavoring to leap the dam would sometimes fall back, and have been actually caught upon an inverted umbrella. I well recollect the remarks that were made by the rude lumbermen at the mill about the first sportsman passing that way who was too fastidious to eat trout caught in that manner.

The various tributaries of the Sinnemaehoning number, I suppose, one hundred trout brooks, ranging from middling to first-rate. All the other game common to that country was in abundance. There was a herd of elk, too, well up the East Fork; let us hope they are "still there," and that no son of "Nimrod" has walked up to them on a thick snow crust and murdered them.

But the natural approach to this region is, or was, by way of Genesee Station, on the Erie Road; thence eighteen miles up stream, and up hill to the head of the Genesee, and to the top knot of that part of creation, near the pretty little village of Lewisville, where in a radius of two miles may be found the heads of Genesee above mentioned. Cowanesque, a tributary of the north branch of Susquehanna; Pine Creek, tributary to the west branch of the same river; and the Alleghany—which has several tributaries, including the Oswayo in the county—all trout streams.

The Genesee and its tributaries furnish from ten to fifteen trout brooks, from fair to middling. The country along the banks of these streams is, or was, thicker settled than the remainder of the county.

With the Tiedeghan branch of Pine Creek the best of the trout fishing and grouse hunting begins; there are, I suppose, twenty or more tributaries all good. Passing up the west branch of Pine Creek and over the divide the waters of Kettle Creek are reached, and soon the charming little town of Germania, in the midst of a colony of Germans, planted by Mr. William Radde and others, of New York. A few miles below, New Bergen, a Danish colony; and further on, Oleona, a colony of Norwegians, established by that great torturer of "pussy's bowels," Mr. Ole Bull.

At this point, just below the frowning white pine board battlements of Ole Bull's castle comes in the Carey fork, a celebrated trout stream, running its entire length through an unbroken wilderness; but Carey's cabin has long since become a "grease spot." Below the junction, for five miles, extends the Laurel Bottom Creek, almost a river, flowing in a succession of deep black pools and wide shallow riffles.

Happening at the foot of this bottom one Fourth of July morning, with a good cast of rather sober-colored flies, I cut a light, springy black birch rod and resolved to fish the stream up as far as Oleona, in preference to walking. The water was low and clear, the fish were on the riffles and at the lower end of the pools, and distinctly to be seen. The view was very braising, in fact exciting. Being headed up stream I had the advantage of seeing the trout before they saw me, but the disadvantage of having to cast up stream, and thus getting no help from the current in managing my flies and keeping my line taut. Whenever one would take my fly, however, he would start for the deep water above and soon take the slack out, but the problem was to land him without frightening all the others on the riffle between us in plain view, lazily fanning the water their broad tails.

We have your excellent paper as a witness of the extreme difficulty of relating a fish story with accuracy. It would be hard to give an adequate idea, much more so to exaggerate the sport enjoyed by this solitary and quiet angler on that day. The broad shining sides of the fish gleamed through the water, and vigorous play was kept up until strength failed, and the basket was crumpled till it could no more. Then a forked elm stick used as a string was filled, and over three hundred and forty speckled beauties were taken to mine inn at the close of that day—a much more appropriate load for two men than one.

Boniface, of the "Oleona House," had watched a deer-lick on the night of the third, and had slaughtered a big buck of seven points, and had the entire saddle roasted in anticipation of our coming. A few patriotic friends, Dutch, Irish, Norwegian, Danish and live Yankee assembled, lagerbeer had been sent from Germania, and there was wine from the Fatherland, and we celebrated the remainder of that glorious Fourth so. It was the last before the war. The next was celebrated in camp.

At another time I may tell you about rock fish and black bass fishing in the Potomac.

Jacksonport, Ark., July 4, 1877.

YELL.

—A weekly mail has been established between Tampa and Cedar Keys, in South Florida.

## Fish Culture.

### SALMON HATCHING ON THE COLUMBIA RIVER.

COLUMBIA RIVER SALMON HATCHING STATION,  
Oregon, Sept. 15, 1877.

#### EDITOR FOREST AND STREAM:

Dear Sir—Two years and a half ago I came to Oregon under the auspices of the United States Fish Commission to carry out Prof. Baird's instructions to select a suitable place for hatching the eggs of the Columbia River salmon. I reported in favor of some point on the Clackamas River, a tributary of the Willamette.

On arriving in Oregon this spring, however, and making known this fact to the Oregon and Washington Fish Propagating Co., who had sent for me to conduct operations for them in hatching these salmon, I was met by the objection, that the Clackamas River salmon were "Steel Heads" (*Salmo gairdneri*), and not Chenook salmon (*Salmo quinnat*), which the Company wanted for their purposes of canning. I was accordingly instructed to find some other suitable place where it was known that the true Chenook salmon ascended to spawn. In pursuance of these instructions I spent the next five weeks on the Columbia and its tributaries, traveling by rail, by steamboat, by stage, on horse-back, or in small boats nearly 3,000 miles, going over in my investigations all the available ground between the ocean and the limits beyond which it was unequivocally dangerous for white men to go, on account of hostile Indians. The result was decidedly unfavorable. Strange as it seems, not a single place in this famous salmon river basin could be found suitable for erecting a large salmon hatching station. At some points otherwise suitable the stream was too large to be controlled, or others too small to answer the purpose. Some places were too remote, some too inaccessible, and all possessed some feature which made them unfit for our purpose. As a last resort the Company gave their consent to a further investigation of the Clackamas River. The result confirmed in every respect my examinations of 1875. The Clackamas was found to be one of the great natural spawning grounds of the true Chenook salmon (*Salmo quinnat*), and on the 18th of July I bought and located for the Oregon and Washington Fish Propagating Co., a station on that river at the mouth of Clear Creek which probably combines more advantages for hatching salmon on a large scale than any other place in America. Work was immediately commenced, and has since progressed so rapidly that in a few days, unless some unforeseen accident happens, we shall have a splendid salmon breeding establishment in perfect running order with a hatching capacity of twenty million (20,000,000) eggs.

Unfortunately there are now no laws in this State restricting the catching of salmon. Indeed there is at this moment, a trap extending entirely across the mouth of the Clackamas River, which shuts out every salmon from entering it, and this together with the fact that two hundred miles of drift nets were run incessantly this summer at the canneries on the Columbia, makes it out of the question to take salmon eggs to amount to anything this season. But public opinion is strongly and universally in favor of the hatching operations begun here, and as soon as the legislature meets it will enact laws prohibiting the destruction of salmon in this river, and when this is done vast quantities of salmon will unquestionably be hatched at this place every year. Very truly yours,

LIVINGSTON STONE.

#### RAPID GROWTH OF TROUT.—Editor Forest and Stream:

Early in the month of March last, after having carefully distributed a consignment of 30,000 trout fry from the State Hatchery at Mumford in several of the streams hereabouts, there were left over about 400 of the fry, which were delivered to a couple of angler friends to place where they might think proper, provided the waters were public. The little fellows were carefully distributed in small allotments throughout the best looking pools of a wild mountain brook in this locality, as far as the small stock would go. The stream in question had once upon a time, as your correspondent well remembers, in the days *consile planco*, abounded with trout, but of late years not a trout or in fact any fish of any kind was to be seen in it. It has been surmised that a rascally poacher of this locality, now deceased, once lined the stream throughout its entire length, and thereby completely destroyed every living thing. I think the supposition not unreasonable, for I can conceive of no other method that could have wrought so complete an annihilation. But to my story: Last Sunday afternoon, in company with one of the gentlemen who assisted in putting the young fry in the stream last spring, I explored carefully several of its pools. We found our trout, and in one large, long, still place, counted over a dozen. But what amazed us, and is the point of this communication, was the size the fish had attained. None of them were less than four inches, and two or more that were very carefully observed as they quietly lay in the still, clear water, were over seven inches long. This growth in so short a time is to me something remarkable. It serves to show, however, the rapid growth of trout under favorable conditions, and may encourage many of your readers to try like experiments, and with your correspondent's hope, that they may meet with like success.

Yours very truly,

W. H. HASBROUCK.

P. S.—I should have added that all of the brook trout received from the State Hatchery and distributed in this locality have thriven.

W. H. H.

Ellenville, N. Y., Oct. 4, 1877.

The fishermen of California are exercised, and justly so, over the systematic violation of the fish laws of that State by the firms engaged in canning salmon upon the Sacramento River. This is one of the most aggravated forms of law-breaking, and should not for one moment be tolerated. It cannot for an instant be pretended that the firms engaged in canning are ignorant of the laws in question, or that they have erred through inadvertence. The facts, too, as reported,

wholly negative any such subterfuge, as they are represented as capturing fish under the cover of night only, thereby showing that they know they are feloniously engaged. The general complaint is much the same as in New York—that Fish Commissioners and District Attorneys seem to have no interest in the enforcement of the laws, exhibiting the utmost apathy toward their violation. One journal boldly asserts that the people of a single "cannery" have so depleted the waters "that not one-tenth the usual number of fish have succeeded in making their way to the spawning ground this season." The result of the neglect of the proper authorities to protect the public interest will be that the fishermen of the Upper Sacramento will follow the example of those of the lower, when the salmon will speedily become a thing of the past. There seems but one way of correcting these abuses and that is by the ballot box, removing the inefficient officers and replacing by other and more conscientious servants. May the Golden State set a glorious example.

THOSE DAMS IN THE SUSQUEHANNA.—We invite the attention of the Pennsylvania Fish Commissioners to the following communication which has been received from an active worker in the cause of game protection, and whose statements are worthy of their consideration:

#### EDITOR FOREST AND STREAM:

This item appeared in the local columns of the Sunbury (Pa.) Gazette, Sept. 28:

Sheriff Strine has completed the work of removing the fish dams in the Susquehanna that were unlawfully constructed by fishermen who hold the fish law in contempt. There were 69 in the river from this place to the Dauphin county line, and 4 between this and Lycoming. The baskets were torn out and the walls demolished. The Sheriff had seven or eight deputies employed in this work. They met with no resistance at any point. Now, since these destructive nuisances have been removed, the Fish Wardens should see that they are not rebuilt.

Think of this, sportsmen, anglers and citizens! Seventy-three dams destroyed within a space of twenty running miles on the broad Susquehanna! Think how well this honest sheriff has assisted the Fish Commissioners of Pennsylvania in carrying out the law, and preserving for the people and for their use the results of the stocking of this noble river with black bass and other fish a few years ago. Ye gods and little fishes! Well might we rejoice with you at this fell blow at the dark damnation of your taking off—if the paragraph above quoted were true. But there is hardly a word in it which is not false. Miles—absolutely miles—of dams exists and only a few stones in any were removed, and those could be easily replaced. The baskets at the apex of the cone-shaped, artificial channels were mostly only lowered, or a small hole knocked in them, requiring but slight repairs. No wonder that no resistance was met with at any point! The majesty of the law must be respected, and besides, who would wish to give unnecessary trouble to so considerate a sheriff?

On Thursday a storm raged in the valley of the Susquehanna as well as here. A rise in the river was anticipated, and the industrious residents along the stream immediately set to work to make repairs, with the result that, on Saturday morning last, they were rewarded with an immense catch of fish, one dam alone yielding over a hundred dollars worth at ten cents per pound. It has hitherto been claimed by the opponents of the law that black bass could not be caught in baskets or nets. The experience referred to conclusively proves the contrary.

Comment is unnecessary. I call your attention to the facts, however, as one having authority and influence, and in order that, if the Pennsylvania Fish Commissioners wink at those outrages on the law, that the sporting world at least may know of their derelictions. The mountains, fields and valleys of Pennsylvania are grand and fair to look upon, but civilization, in some parts of the State at least, is far behind the times.

New York, Oct. 4.

WARREN.

PENNSYLVANIA.—Bass are to be placed in Chest Creek, Clearfield County.

The Fish Commissioners, having examined the dam on the Susquehanna, at Columbia, and found it insufficient, now propose to extend the Tide Water canal to the point opposite Cheekill's rock.

At the State hatching house, which is under the supervision of Mr. Seth Weeks, there will be hatched, the coming season, 3,000,000 salmon. There are 600 salmon in one of the ponds, and several ponds are devoted to brook trout. Black bass are to be introduced into Little Shamokin Creek.

NEW HAMPSHIRE.—The work at the Livermore Falls State Hatching House is now nearly completed; 400,000 or 500,000 California salmon eggs will arrive about the 5th of October. In addition to several thousand brook trout, about 20,000 land-locked salmon will be hatched this season, and ready for distribution in May next.

#### SPLIT BAMBOO RODS.

To Our Customers and the Public: In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,

—[Adv.] Manufacturers, 65 Fulton Street, N. Y.

The mean mid-day temperature at New Smyrna, Fla., for the month of September was 85 deg.; the maximum, 92 deg.; the minimum, 78 deg.

AMERICAN INSTITUTE.—The American Institute is now holding its forty-sixth annual exhibition on Third Avenue and Sixty-fourth st., and thus far the attendance has been very satisfactory to the managers. Ellwanger & Barry of Rochester, make a fine display of pears and apples, W. S. Carpenter, of apples and F. J. Hicketts, of native grapes. The entries included every imaginable invention, and the whirl of the machinery and the crowds of visitors forcibly remind one of Machinery Hall at the Centennial Exhibition. The list of premiums offered is large and liberal, and the managers look forward to great success this season.

## Natural History.

### INSECT WINGS.

ANIMALS possess the power of feeling, and of effecting certain movements by the exercise of a muscular apparatus, with which their bodies are furnished. They are distinguished from the organizations of the vegetable kingdom by the presence of these attributes. Every one is aware that when the child sees some strange and unknown object he is observing, start suddenly into motion, he will exclaim, "It is alive!" By this exclamation he means to express his conviction that the object is endowed with animal life. Power of voluntary and independent motion and animal organization are associated together as inseparable and essentially connected ideas by even the earliest experience in the economy and ways of nature. The animal faculty of voluntary motion, in almost every case, confers upon the creature the ability to transfer its body from place to place. In some animals the weight of the body is sustained by immersion in a fluid as dense as itself. It is then carried about with very little expenditure of effort, either by the waving action of vibratile cilia scattered over its external surface, or by the oar-like movement of certain portions of its frame especially adapted to the purpose. In other animals the weight of the body rests directly upon the ground, and has, therefore, to be lifted from place to place by more powerful mechanical contrivances.

In the lowest forms of air-living animals, the body rests upon the ground by numerous points of support; and when it moves is wriggled along piecemeal, one portion being pushed forward while the rest remains stationary. The mode of progression which the little earthworm adopts, is a familiar illustration of this style of proceeding.

In the higher forms of air-living animals a freer and more commodious kind of movement is provided for. The body itself is raised up from the ground upon pointed columns, which are made to act as levers as well as props. Observe, for instance, the tigre-beetle, as it runs swiftly over the uneven surface of the path in search of its dinner, with its eager antennae thrust out in advance. Those six long and slender legs that bear up the body of the insect, and keep still advancing in regular alternate order, are steadied and worked by cords laid along on the hollows and grooves of their own substance. While some of them uphold the weight of the superincumbent body, the rest are thrown forward as fresh and more advanced points of support on to which they may be pulled. The running of the insect is a very ingenious and beautiful adaptation of the principles of mechanism to the purposes of life. But in the insect organization a still more surprising display of mechanical skill is made. A comparatively heavy body is not only carried rapidly and conveniently along the surface of the ground, it is also raised entirely up from it at pleasure and transported through lengthened distances, while resting upon nothing but the thin transparent air.

From the top of the central part technically termed thoracic of the insect's body, from which the legs descend, two or more membranous sails arise which are able to heat the air by repeated strokes, and to make it, consequently, uphold their own weight as well as that of the burdens connected with them. These lifting and sustaining sails are the insect's wings. The wings of the insect, however, are of a nature altogether different from the apparently analogous organs which the bird uses in flight. The wings of the latter are merely feathered fore-legs. Lift up the front extremities of a quadruped, keep them asunder at their origins by bony props, fit them with freer motions and stronger muscles, and cover them with feathers, and they become wings in every essential particular. In that insect, however, the case is altogether different. The wings are not altered legs; they are superadded to the legs. The insect has its fore-legs as well as its wings. The legs all descend from the under surface of the thoracic piece, the wings arise from its upper surface. As the wings are flapping about during flight the unchanged legs are dangling below in full complement. The wings are, therefore, independent and additional organs. They have no relation whatever to limbs, properly so called; but there are some other portions of the animal economy with which they do connect themselves both by structure and function. The reader will hardly guess what those wing-allied organs are.

There is a little fly called the May-fly, which usually makes its appearance in July and August. They visit the districts in France watered by the Seine and the Marne in such numbers that the fishermen of these rivers believe they are showered down from heaven, and accordingly call these living clouds manna. Reaumur once saw these flies so thickly descend in this region that it resembled a dense snow storm, and the step on which he stood by the river's bank was covered to a depth of four inches in a few moments.

The insect itself is very beautiful; it has four delicate, yellowish, lace-like wings, freckled with brown spots, and these singular hair-like projections hanging out beyond its tail. It never touches food during its mature life, but leads a short and joyous existence. It dances over the surface of the water for three or four hours dropping its eggs as it flies, and then disappears forever.

Myriads come forth about the hour of eight in the evening, but by ten or twelve o'clock not a single straggler can be found alive. This answers to the description of our commonly called "June-bug." From the egg which the parent May-fly drops into the water, a six-legged grub is very soon hatched,

This grub proceeds to excavate for himself a home in the soft bank of the river below the surface of the water, and there remains for two long years, feeding upon the decaying matters of the mould. During this aquatic residence the little creature finds it necessary to breathe, of course, and in order that he may do so comfortably, notwithstanding his habits of seclusion, and his constant immersion in fluid, he pushes out from his shoulders and back a series of delicate leaf-like plates. A branch of one of those air tubes of his body enters into each of those plates and spreads out into its substance. The plates are in fact gills—that is, respiratory organs, fitted for breathing beneath the water. The little fellow may be seen to wave them backward and forward with incessant motion as he churns up the fluid to get out of it the vital air which it contains.

When the grub of the May-fly has completed his two years of probation he comes out from his subterranean and sub-aqueous den and rises to the surface of the stream. By means of his flapping, and his somewhat enlarged gills, he half leaps and half flies to the nearest rush or sedge he can perceive, and clings fast to it by his legs. He then, by a clever twist of his little body, splits open his old fishy skin and slowly draws himself out, head, body and legs, and, last of all, from some of those leafy gills he pulls a delicate crumpled up membrane, which soon dries and expands and becomes lace netted and brown fretted.

The membrane which was shut up in the gills of the aquatic creature was really the rudiment of its now perfect wings. The wings of the insect are then a sort of external lungs, articulated with the body by means of a moveable point, and made to subservise the purposes of flight. Each wing is formed of a flattened bladder, extended from the general skin of the body. The sides of this bladder are pressed closely together, and would be in absolute contact but for a series of branching rigid tubes that are spread out in the intervening cavity. These tubes are air vessels; their interiors are lined with with elastic, spirally rolled threads that serve to keep the channels constantly open, and through these open channels the vital atmosphere rushes with every movement of the membranous organ. The wings of the May-fly flapping in the air is a respiratory organ of as much importance to the well being of the creature, in its way, as the gill plate of its grub prototype is when vibrating under the water. But the wing of the insect is not the only respiratory organ, its entire body is one vast respiratory system, of which the wings are offsets. The spirally lined air vessels run everywhere, and branch out in every direction. The insect in fact circulates air instead of blood. As the prick of the finest needle draws blood from the flesh of the back banded creature it draws air from the flesh of the insect. Who will wonder then that the insect is so light? Its arterial system is filled with the ethereal atmosphere as the more stolid creature is with heavy blood.

If the reader has ever closely watched a large fly or bee, he will have noticed that it has more of the respiratory movements that are so familiar to him in the bodies of quadrupeds and birds. There is none of that heaving of the chest and out and in movement of the sides, which constitute the visible phenomena of breathing. In the insects economy the air enters by the usual inlet of the mouth. It all goes in by means of small air mouths placed along the sides of the body, and exclusively appropriated to its reception. Squeezing the throat will not choke an insect. In order to do this effectually the sections of the body where the air mouths are must be smeared with oil. In the vertebrated animals the blood is driven through branching tubes to receptacles of air placed within the chest; the air channels terminate in blood extremities, and the blood vessels cover these as a net work. The mechanical act of respiration merely serves to change the air contained within the air vessels.

In the insects this entire process is reversed; the air is carried by branching tubes to receptacles of blood scattered throughout the body; the blood channels terminate in blood extremities, and a capillary net work of air vessels is spread over these. Now, in the vertebrated creature the chest is merely the grand air-receptacle, into which the blood is sent to be created; while in the insect the chest contains but its own proportional share of the great air system.

In the latter case, therefore, there is a great deal of available space which would have been, under other circumstances, filled with the respiratory apparatus, but is now left free to be otherwise employed. The thoracic cavity of the insect serves as a storage for the bulky and powerful muscles that are required to give energy to the legs and wings. The portion of the body that is almost exclusively respiratory in other animals, becomes almost as exclusively motor in insects. It holds in its interior the chief portions of the cords, by which the moving levers and membranes are worked, and its outer surface is adorned by those levers and membranes themselves. Both the legs and wings of the insect are attached to the thoracic segments of its body.

The extraordinary powers of flight which insects possess are due to the conjoined influences of the two conditions that have been named—the lightness of their air-filled bodies, and the strength of their chest-packed muscles. Where light air is circulated instead of heavy blood, great vascularity serves only to make existence more ethereal. Plethora probably takes the insect nearer to the skies instead of dragging it toward the dust.

The hawk-moth, with its burly body, may often be seen hovering gracefully on quivering wings over some favorite

flower, as if it were hung there on cords, while it rifles it of its store of accumulated sweets by means of its long unfolded tongue. The common house-fly makes six hundred strokes every second in its ordinary flight, and gets through five or six feet of space by means of them; but when alarmed it can increase the velocity of its wing strokes some five or six fold and move through thirty-five feet in the second.

Kirby believed that if the house-fly was made equal to the horse in size, and had its muscular power increased in the same proportion, it would be able to traverse the globe with the rapidity of lightning.

The dragon-fly often remains on the wing in pursuit of its prey for hours at a stretch, and yet will sometimes baffle the swallow by its speed, although that bird is calculated to be able to move at the rate of a mile a minute. But the dexterity of this insect is even more surprising than its swiftness, for it is able to do what no bird can do; it is able to stop instantly in the midst of its most rapid course, and change the direction of its flight, going sideways or backward without altering the position of the body.

As a general rule insect wings that are intended for employment in flight are transparent membranes, and the course of air tubes marked out upon them as opaque nervures. These air tubes, it will be remembered, are lined by spires of dense cartilage, and hence it is that they become nervures so well adapted to act like tent-lines in keeping the expanded membranes stretched. In the dragon-flies the nervures are minutely netted for the sake of increased strength; in the bees the nervures are simply parallel.

Most insects have two pairs of these transparent membranous wings; but in such as burrow, one pair is converted into a dense leather-like case, under which the other pair are folded away. In the flies only one pair of wings can be found at all, the other pair being changed into two little club shaped bodies, called balances.

Butterflies and moths are the only insects that fly by means of opaque wings; but in their case the opacity is apparent rather than real, for it is caused by the presence of a very beautiful layer of colored scales, spread evenly over the outer surface of the membranes. When these scales are brushed off, membranous wings of the ordinary transparent character are disclosed.

The scales are attached to the membrane by little stems, like the quill-ends of feathers, and they are arranged in overlapping rows. The variegated colors and pattern of the insects are entire due to them. If the wings of a butterfly be pressed upon a surface of card-board covered with a solution of gum-arabic to the extent of their own outlines, and be left there until the gum is dry, the outer layer of scales may be rubbed off with a handkerchief, and the double membranes and intervening nervures may be picked away piecemeal with a needle's point, and there will remain upon the card a most beautiful representation of the other surface of the wings, its scales being all preserved by the gum in their natural position.

If the outline of the wings be carefully penciled first, and the gum water be then delicately and evenly brushed on just as far as the outlines, a perfect and durable *fac-simile* in all the original variety of color and marking is procured which needs only to have the body sketched in to make it a very pretty and accurate delineation of the insect. KROOK.

RANDOM NOTES.—Our correspondent R, of Ferrisburgh, Vt., sends us the following notes, which contain a great deal that is interesting. They are, the author tells us, scattered through parts of two years. We could wish that the observer's note-book had been more constantly in use. To have a lasting value such observations should be connected, and as far as possible extended:

May 30, 1876.—A party of us fishing for bass in Lewis Creek saw in a pool in that stream a curious spawn. The eggs inclosed in a long, transparent, glutinous covering, about the size of an ordinary clay pipe stem, the whole looking like a string of small dark-colored beads in a glass tube. There were many yards of it lying in the still, shallow water. What was it? [Evidently the spawn of some Batrachian frog or toad.—Ed.] Black bass on their beds.

June 4th.—Bullpouts preparing to spawn, but biting a little yet. Rather late for them, I think.

June 7th.—Saw seventeen wood ducks, one flock of seven. They are undoubtedly breeding here.

June 29th.—With Dr. M. C. Edmunds, found a young black bass 1½ inches long. The little fellow was chasing minnows as large as himself.

July 8th.—Blackbirds flocking.

Aug. 1st.—Heard upland plover (*Bartram's Tattler*) flying southward in the evening.

Aug. 8th.—Hear orioles again.

Aug. 11th.—Bobolinks about again.

Aug. 27th.—Saw a muskrat house, apparently finished. According to believers in Musquash foreknowledge this indicates early cold weather.

Sept. 2d.—Saw two upland plover in meadows near Little Otter.

Sept. 5th.—Saw eight or ten upland plover in same meadow, very wild and killed only one.

Sept. 6th.—On the same ground saw only two plover.

Sept. 21st.—Heard a ruffed grouse drumming, which I think is quite unusual so early. Shot one running on the ground, which flew vigorously about ten rods, and then fell stone dead. In its crop were bits of what looked like toad stool. In the crop of another shot same day was a quantity of clover leaves, apple leaves, beech nuts, wild grapes, small seeds and buds. For several evenings past, till 9 o'clock or later, I have heard the notes of some apparently small birds migrating southward. Last night and to-night a great many were passing. The note is a single "whcep!" quite distinct but not loud, and not very frequently uttered. What are they?

Sept. 23d.—Ash ripened (no frost yet) to its first grape-bloom color. A good many trees beginning to change; soft maple, hickory, sumac and white ash.

Sept. 27th.—Many hickories quite golden. Ash has more gold with its purple. Sugar maple but little changed. Black and white oaks still hold their dark green. This day I found on a high rocky ridge a little colony of gray or scrub pine, the first and only I ever saw.

Oct. 8th.—Most of the oaks still wear their dark green, but some have changed a good deal. The elms are yellowing, the beeches green and gold; some basswoods, butter nuts and ashes are naked.

Oct. 11th.—Saw a flock of blue snowbirds in a pine thicket near Lewis Creek.

Oct. 15th.—Flushed two Wilson's snipe on bank of East Slang. A very cold, windy day; wind west.

Oct. 17th.—Found a few snipe in same place. A sharp west wind, with bright sunshine. Killed three snipe and one yellow leg.

Oct. 20th.—Killed two snipe in East Slang, and three yellow legs there. Also killed several birds which some one says are marbled godwit. A warm sunny day. Joe Birkett reports having seen a great many snipe this day on Little Otter Creek marshes, just below the lower falls. The next day, Oct. 21st, we beat the same grounds and flushed but three birds, and those very wild. A cloudy day, with south wind.

Nov. 17th.—Saw a flock of snow buntings, and a hare with his white water jacket on.

Nov. 23d.—In a ruffed grouse's crop found birch tags and round-leaved pyrola leaves.

Dec. 14th.—Found in crop of ruffed grouse birch tags, and in the gizzard a mass of woody stuff, which we decided was composed of the twigs of these tags.

Feb. 21, 1877.—A crow seen.

Feb. 24th.—Crows about every day.

March 4th.—A flock of more than twenty-five crows seen flying north. Have seen very few snow buntings this winter, none at all for at least two months past.

March 22d.—A robin reported this morning.

March 26th.—Heard bluebird this morning, and robin at noon.

March 27th.—Heard and saw several robins this morning, and heard sparrows.

March 31st.—Phebe-birds came. Frogs seen about creek.

April 2d.—Saw meadow lark. Found a liverwort blossom (*Hepatica*). Lake Champlain seems to be broken up. From 2d to 8th or 9th, picked on the marshes.

April 9th.—Saw a swallow at creek, and heard a ruffed grouse drum.

April 10th.—Saw swallows about buildings.

April 13th.—Saw a butterfly, a striped snake, blood-root flowers, and heard frogs "peep" (the *Hylas*).

April 17th.—A purple linnet singing on one of the loonst trees.

April 24th.—Flushed two snipe near Little Otter. From appearances they had tarried there during the day. Heard bittern booming. Found two fox holes cleaned out.

May 3d.—Looked in same place for snipe, but found none, nor any signs of them. Saw wind-flowers, violets and wild strawberries in bloom.

May 5th.—I saw barn swallows for the first time, but Mrs. R. is sure she saw them a week ago.

May 6th.—A few dandelions in bloom.

May 8th.—Heard the long drawn "whcep-whcep-u" of a Bartram's tattler.

May 14th.—Baltimore orioles came, R. R. M., and I caught four black bass in Lewis Creek. Saw king-fish. Some bass on their spawning beds.

May 15th.—Bobolinks came.

May 19th.—Heard first great-crested fly-catcher and night hawk.

May 22d.—Cuckoo came.

May 23d.—Our first brood of robins leave their nest.

May 29th.—Saw a ruffed grouse and her just-hatched brood.

July 24th.—A still, moonlight night. We heard upland plover moving southward—apparently a good many birds. A few male bobolinks still wearing the motley. Many young birds flocking, and quite strong on the wing.

Aug. 3d.—Beat the meadows and pastures for upland plover but found none.

Aug. 7th.—No bobolinks to be seen now.

A CUTIE SPARROW.—The following story, for which the *Hartford Times* is responsible, will probably prove a rich morsel for those who argue that, besides being useless and an impostor, the sparrow is totally depraved:

A curious story, illustrative of the intelligence and reasoning power—and perhaps of the characteristic mentality also—of the little twittering mis-called "English sparrow," now so common in all our principal towns and cities, is related by a friend, who had it from the witness himself who saw the occurrence. The gentleman, who resides in New York, had erected, last spring, in his back yard, a large box for sparrows' nests. It was divided into three rows, each containing four compartments. These were all speedily taken possession of by a dozen pairs of sparrows, and the business of making nests proceeded amidst the customary chattering din of these fussy and pugnacious feathered colonists. Sitting idly at the window, one Sunday, watching the birds, the gentleman saw one cock-sparrow come flying to his place with a fine, soft white feather in his bill. The box was so placed that he could see into the apartments, and he saw this bird fix the feather into an incomplete nest, and then fly away. No sooner was he out of sight than a female sparrow from the adjoining compartment, who had evidently seen that proceeding, hopped into her neighbor's house and pulled out and carried off the coveted feather. Becoming interested, the observer watched the performance, expecting to see the little thief carry her stolen prize to her own nest, but no, she knew a trick worth two of that, and here is where she displayed an undeniable reasoning process, and acted on a clear perception of cause and effect, making a prudent use of her knowledge of the character and disposition of her plundered neighbor. She flew off with the feather to a neighboring tree, where she securely fastened it in an inconspicuous place upon and between two twigs, and there left it. Pretty soon the bird she had defrauded came back with a straw to add to his nest. Discovering his loss, he came out with an angry chirrup that boded no good to the despoiler of his hearth and home, if he could only find the rogue. His first demonstration was to visit his next-door neighbor without any search-warrant. In that abode of peace and innocence he found no trace of the stolen feather; and as for the actually guilty party, she was hopping innocently about, and loudly demanding—as far as bird-tones could be understood by the man at the window—what was

meant by this ungentlemanly and very impolite intrusion into a lady's bed-chamber, and insisting that she was no such kind of a woman. The cock-sparrow was evidently puzzled. Unable, after a minute search, to find the lost feather, he at length apparently gave it up, charged it to profit and loss, and flew away in search of another. The thief demurely waited till he had got well off, and then flew to the tree, secured the stolen feather, and took it in triumph to her own nest.

This story we are assured is a true one. It certainly shows the power of reasoning by a bird, just as conclusively as any logical process that was ever employed by David Hume or Jay Gould. Whether it also furnishes another argument to sustain the modern theory of the innate superiority of the female sex depends somewhat upon the point of view from which such smart but reprehensible conduct is regarded.

**HOW BIRDS FLY.**—Kites and huzzards glide round in circles with expanded, and apparently motionless, wings; hawks or harriers fly low over meadows and stubble field, beating the ground regularly; crows and jays labor along as if hard at work, and herons are still more clumsy, having their long necks and longer legs to enumber them. The woodpecker's progress is a series of long undulations, opening and closing the wings at every stroke. Finches and sparrows have a short, jerky flight, accompanied with many bobbings and flirtings. Warblers and fly-catchers fly high up, smoothly and swiftly. Swallows and night-hawks seem to be moving the air with scintillar wings, and move with surprising energy. On the ground most small birds are hoppers, only a few truly and gracefully walking.

**THE VINAGRONE.**—Of this curious insect, described and figured in F. and S., of Aug. 30, by Dr. Popc, I have a specimen taken at Halifax Inlet, East Florida, where it is common and is known as the mule killer or grampus. Another writer in F. and S. says that this insect is well known as *Thelyphonus giganteus*—Lucas. The only work in which I have been able to find this species is the new edition of the "Encyclopedia Britannica," where a cut and description of *Thelyphonus gig.* is given, but this wants the peculiar and remarkable antennae springing from behind the last pair of legs, which are found in my specimen and Dr. Popc's drawing. My specimen measures  $2\frac{1}{2}$  inches without the tail. It also differs from the cut in the Encyclopedia in having little or no hair on the legs and tail. May not this be a new species? In Florida it is considered poisonous. S. C. C.

**A GOOD PLAN TO BANISH INSECTS.**—At a conference of agriculturists lately held in London, in which many noblemen and other large proprietors took part, it was resolved to urge upon the British Government the necessity of legislating for the protection of cultivation against the injury done by insects. It was urged in the first place that in order to effectually rid a district or a country of an injurious insect, any attempt to do so must be simultaneous and combined, for to what purpose would it be if one man cleared his farm if his neighbor did not clear his; or if the one cleared his one year and the other cleared his another? A central authority, therefore, is needed to secure united action. Proceeding on the basis then of united action, it was clearly shown that an easy remedy for the evil lies in the rotation of crops. Most vegetable-feeding insects, *e. g.*, wheat insects, can only live on one kind of plant, and most of them are annual. Therefore by entirely desisting for a year from the cultivation of a certain plant in a certain district, the insect infesting that plant would be banished entirely, or until re-introduced. This plan of course can only be effectual by means of simultaneous action over considerable districts, hence the determination of the Conference to endeavor to obtain government aid rather than rely on the efforts of agricultural societies.

**SIBERIAN NATURAL HISTORY.**—Dr. O. Finsch, lately returned from a scientific expedition to Siberia, has opened at Bremen an exhibition of the ethnographic and natural history collections made by him during his travels. The specimens have been duly classified by Dr. Finsch himself, and, according to *Die Natur*, whose account of these valuable collections we follow, give a good general idea of the kind of life led by the inhabitants of Western Siberia. In this respect they surpass even the Imperial Museums of St. Petersburg and Moscow. The inhabitants of the whole region of the Obi, lying north of the confluence of the Irtysh with that stream, live exclusively by fishing, hunting and reindeer breeding. The reindeer is the principal source of their wealth, but the herds have been ravaged during the last forty or fifty years by Splentia, and thus the people have been reduced to great straits. For instance, we are informed that Ivan Iaisin, Prince of Oddorsk, who, twenty years ago, owned 7,000 reindeer, now has only 700.

**KING BIRDS AND BEES.**—W. H. White, in the *Country Gentleman*, asserts that careful observation has determined that the king birds are most insatiable devourers of bees. In examining a nest which contained three well feathered birds, and by watching the parents he estimated that each was fed from thirty to fifty bees per day. A neighbor who was so far a disbeliever in the taking of bees by this bird as to offer a reward for every bee found within it, was convinced of his error by dissection.

**THE INDIAN BRAVES AT CENTRAL PARK.**—Spotted Tail, Red Cloud, Little Big Man, Man Afraid of His Horses, Touch the Clouds, and the rest of the twenty-three chiefs who have been on a visit to the Great Father at Washington, were conducted last Thursday through Central Park, New York. They were stolidly indifferent to the various works of art there displayed, but when they came to the menagerie their admiration knew no bounds. Little Big Man remarking that there were more animals than he had names for. They were particularly pleased with the brilliant hues of the tropical birds, the baby elephants and the lions. But the greatest source of amusement was found in the antics of the monkeys. The chiefs laughed heartily, and Lieut. Clark explained that part of their enjoyment arose from their pointing out to each other the resemblance they found in the monkey's faces to those of various friends on the reservation.

—A strange collection of sea gulls was lately witnessed on the Clyde at Glasgow. Between the Union Railway Viaduct and the Albert Bridge scores of so-called laughing gulls were seen fluttering above the water, and paddling about in flocks. Along the shore were seen little groups of starlings, and three species of wagtail running nimbly, picking their steps. The sparrow and rook were also represented, while a small company of the large gray gull were seated on rafts of pine logs. The most curious feature observable as regards the gulls was that among the whole congregation of them not a single one had attained its full plumage. All were young birds of this season's hatching, mottled with gray on the back, the white tail tipped with black—the beautiful black head and dark crimson bill and legs of the mature bird being in no instance visible. The old birds are now gathering by themselves in the lochs and bays of the Western Highlands.

**SIMPLICITY.**—A Scotchman once took his wife to see the wonders of the microscope. The various curiosities seemed to please the woman very well, till the animalcule professed to be contained in a drop of water were shown off. This seemed to poor Janet not so very pleasant a sight as the others. She sat patiently, however, till the "water tigers," magnified to the size of twelve feet, appeared on the sheet, fighting with their usual ferocity. Janet now rose in great trepidation, and cried to her husband, "Come awa', John!" "Sit still, woman, and see the show," said John. "See the show! Gudc keep us a', man, what wad come o' us if the awfu'-like brutes wad brak' out o' the water?"

**A BIG DEVIL-FISH.**—New York has just received a huge devil fish or cuttle-fish, recently captured on the coast of Newfoundland. This is the largest specimen ever captured, the total length from the termination of the outstretched arm to the tip of the tail is more than forty feet. A full description of this marine curiosity and the account of its capture we shall give hereafter.

**ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDENS FOR WEEK ENDING, TUESDAY, Oct. 2, 1871.**—One robin, *Turdus migratorius*, presented; one garter snake, *Eutania sirtalis*, presented; two white rabbits, *Lepus cuniculus*, presented; one common red squirrel, *Sciurus hudsonicus*, presented; two opossums, *Dilophys virginiana*, presented; three barn owls, *Stroz flammea var americana*, purchased; one yellow billed cuckoo *Coccyzus americana*, presented. Very truly, ARTHUR E. BROWN, Gen'l Supt.

"His life was gentle; and the elements  
So mixed in him, that nature might stand up  
And say to all the world—'This is a man.'"  
writes Shakespeare in "Julius Cesar." So are the elements mixed in B. T. Babbitt's Toilet Soap, that he can say to all the world—"This is the soap." Frankly we are compelled to admit the supreme excellence of this new luxury of the toilet on account of its delicious purity and agreeableness to the touch.

—AMERICAN STANDARD SHOT—of superior finish; also, lead pipe and sheet lead, Colwell Lead Company, No. 63 Centre street, New York.—*L. A.*

## Woodland, Farm and Garden.

### PRESERVATION OF AUTUMN LEAVES AND FERNS.

THE autumn of the year, the most lovely and enjoyable of all the seasons, is now advancing with firm and rapid steps, and soon will verge into drear and icy winter. That in our northern climate means all disappearance of the beautiful ferns, vines and brilliant-colored leaves, that at this time greet one's eyesight upon every wooded hill and in every valley, especially where the swamp maple, sugar maple and sumach abound—the bright scarlet of the former, the clear, yellow and rich deep crimson of the latter, intermingled with the fresh-looking green foliage upon every side, and the vivid colors of the American ivy, glowing in the sunshine, and twining about the gray rocks, or hanging in graceful festoons from the dark green cedars, form a picture upon which one can never tire of looking. This brings the wish that we might, for a time at least, retain some of the lovely leaves for home decoration during the chill winter months, when flowers, heretofore used for that purpose, are both scarce and expensive. It has been an oft-tried experiment how to keep the natural look as well as the color of the leaves, and in many cases has proved a failure, and all because a little care and attention were required in preserving them. How many times do we see the bright autumn leaves robbed of their beauty and naturalness by a coating of varnish, or their lustrous colors dimmed by covering them with oil? If, instead of so doing, those wishing to preserve leaves that shall appear as beautiful as when just gathered, will try the following plan, they will be agreeably surprised, both at the easy method and the result: First, procure from any stationer some sheets of blotting paper, and place the leaves to be preserved between—taking care that they do not touch each other; then at intervals of about a half dozen of the papers lay either a folded newspaper or a piece of cardboard. When all the leaves are arranged, place the papers containing them upon a smooth board, with another board on top, and upon that a heavy weight; let them remain in a warm room for a day, then replace them in dry fresh papers. Do this for a few times with autumn leaves, but obtain with ferns, etc., as there is more moisture in the latter, and you will have fresh-looking ferns and leaves as natural as if just gathered. Mrs. W. J. DAVIDSON.

**THE LEAF OF LIFE, OR LIFE PLANT,** of which there is a notice in the last *FOREST AND STREAM*, as a native of Jamaica, grows also in Florida, where it stands the winter. Goss describes it as follows: Thick, succulent leaves, with rounded segments; a spike of greenish flowers, three feet high. Remarkable for the tenacity of its living principle. A leaf hung up in the air or thrown into a drawer, will develop into a plant. He calls it *Vereca arenata*, and puts it in the order *Crassulacea*.

**SKELETON LEAVES.**—"Mollie," in the *New York Times*, gives these directions for the preparation of skeleton leaves. The leaves and grasses thus preserved, arranged in tasteful designs and framed with a black back ground, are among the most beautiful of home decorations:

Handle very carefully, and have patience. July and August are the best months to gather leaves for this purpose, though later will sometimes do. Get perfect ones; place them in glass jars; fill with water; add 10 or 12 drops of muriatic acid for every pint of water. Keep the jar covered and in the sun. If the water evaporates, add more, with acid; it must be kept full. It will do no harm if the leaves are crowded a little. Look after them often, and when the fibre seems loosened take out the leaf, place it on a piece of glass. If the leaf is a frail, thin one, use a tiny soft brush to remove the pulp; if the leaf is thick and strong rub the pulp off between the thumb and finger; work carefully. Delicate thin leaves require much less time than thick ones in the acid water. Four mouths is the usual time, often longer. After removing the pulp place the skeleton in cold water; add about one dram of chloride of lime and five drops of acetic acid for every pint of water. Let them remain in this until they are a fine white then press them in a large book; keep heavy weights on top.

**QUEENS CO. FAIR.**—The thirty-sixth annual exhibition of the Queens County Agricultural Society was held on the Society's ground at Mineola last week. The displays in the different departments were unusually fine, and reflected great credit on the exhibitors. William A. Burgess of Glenoave, made a splendid display of Roses, Dahlias and Phloxes. A. Wayte of Queens had a beautiful lot of ornamental and variegated foliage plants and Gladioli. B. K. Bliss & Sons, 34 Barclay St., N. Y., made a wonderful exhibit of Potatoes in endless variety, several of their new varieties looking very tempting. The C. L. Allen Co. of Queens, had a collection of exotic and two immense floral designs. Grapes (to-cign) were shown by Thos. Messener, Great Neck, and very fine they were, as were also the fine collection of native grapes from Messrs. Geo. R. Underhill & C. J. Copley. Peaches from Geo. Lucas, and figs from V. Frost, Glenoave. A together it was a most creditable exhibition, and we are glad to add, one of the most successful ever held by the Society.

**THE COLORADO BEETLE IN EUROPE.**—The English journals are full of the Colorado Beetle, which they seem to think is about to depopulate their little island. The potato bug has never had the opportunities for making a sensation that he has at present, and if he is a sensible bug he will surely make the most of it. He is lithographed, photographed, pantographed and paragraphed on every hand, while all the societies entomological are running riot over his body. Old England is fairly howling over the probabilities, wrangling over his scientific status, and "blawsting" the Yankees, whom they seem to think have invented the "beast" expressly for their annoyance. New England coolly awaited the onslaught of the pest with shingles, old cans and Paris green, making no complaints, and in consequence is harvesting an unusually large crop of potatoes, so much so as to have materially reduced the market price—to 30 cents per bushel. It strikes us that this is the most philosophical way, for we have never heard of the beetle being frightened by scientific titles or long-winded discourses, though perhaps when he becomes cooped up in the narrow quarters of the United Kingdom too much learning may make him mad. Seriously, it is highly improbable that the potato bug will flourish in England sufficiently to become the pest that it is here, for it is rare that a continental scourge succeeds when transferred to an island; and even if it should, labor is cheap, and hand-labour and Paris green are efficacious if practiced thoroughly, and the care bestowed, which otherwise would not have been given, affords most excellent return when the crop is harvested.

**THE POULTRY WORLD.**—This excellent little journal has issued a series of chromo-lithographs, twelve in number, illustrating the most celebrated breeds of fowls which are furnished subscribers at the nominal price of 75 cents per set. Poultry breeders will find this monthly a useful adjunct to their efforts. H. H. Stoddard, Publisher, Hartford, Conn.

**THE AGE OF TREES.**—The longevity of various trees has been stated to be, in round numbers, as follows: Deciduous cypress, 6,000 years; baobab tree of Senegal, 5,000; dragon's blood tree, 4,000; yew, 3,000; cedar of Lebanon, 3,000; olive, 2,500; oak, 1,600; orange, 1,500; Oriental plane, 1,200; cabbage palm, 700; lime, 600; ivy, 600; ash, 400; cocoanut palm, 300; date palm, 300; larch, 300; pear, 300; apple, 200. The Brazil vine palm arrives at the age of 150 years; the Scotch fir gets its growth in about 100 years, and the balm of Gilead in about fifty years.

**THE FIRST FOOD FOR CHICKENS.**—Just before the chick breaks from its narrow cell, the last of the yolk is taken into the stomach, which gives it the strength to make its own grand effort for freedom. This food will certainly last twelve, if not twenty-four hours after it is free. During that time no other food is needed; only rest is required for the little stranger after its exhausting labor.—*Poultry World*.

**WEATHER WISDOM.**—Many persons are predicting an early, long and severe winter. The indications are: the unusual abundance of pine cones, the big piles of dirt the gophers are making about their holes, the unusual thickness of the corn sheaves, the industry of the woodpeckers in laying up stores of acorns, the early rising of the springs in the mountains the mildness of the weather last winter.

—The discovery of an immense cave in Josephine county Oregon, is announced. The exploration is by no means complete, yet over five miles of galleries have been seen.

### The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age. 2. Food and medicine given. 3. Appearance of the eye; of the coat; of the tongue and lips. 4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc. 5. Breathing, the number of respirations per minute, and whether labored or not. 6. Condition of the bowels and secretions of the kidneys, color, etc. 7. Appetite; regular, variable, etc. 8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg. 9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

**DOGS AS FRIENDS.**—An English writer, in musing upon the companionship of animals, writes, that having moved to the country the occasion seemed propitious for cultivating canine friends:

I began modestly by entering into society with a young sheep-dog, who received the professional name of Blister, for which the familiar term is Bliss. Bliss was a happy young dog of full growth, with eyes like jewels, teeth like a shark's, and all a puppy's ecstacy in using them on anything that could be bitten through. Every morning, when I first appeared before him, he flew at me with barks of affection, fixed his teeth firmly in a skirt of my dressing-gown, to pull at it and shake it as a fiercely cordial man might shake you by the hand. How many days I had enjoyed my Bliss might have been ascertained at any period by numbering the rents in the tail of my dressing-gown, as clearly as men ascertain the age of trees by counting the rings in the wood. Having breakfasted with me, my friend sat on his tail at the door of my lodging till he saw me mounted. Then no ingenuity could stay him from joining all my rounds, and making it his business to preach to the sheep of the whole country-side, gathered by him together on the hills in crowded and excited congregations. One morning, however, when there was a round of almost forty miles for us, he was not indulged with any slackenings of pace for his particular convenience. He came home very tired, and after that day subsided himself with the courtesy of walking out to see me off, but steadily declined to follow.

This active creature went astray and was a lost dog. Then it became necessary to supply his pace, and as it appeared probable that a less boisterous comrade was to be desired as his successor, I bought with gold the friendship of a mild old lady, a thin spaniel with glossy black hair. She had answered for years to the hereditary name of Fan, which is among dogs what Smith is among men.

Now, therefore, I was blessed with a four-footed being who would never go out with the horse, but was content only to follow me on foot, and visit the sick in our little town of Somerton. She had a good appetite, enlarged in flesh, panted a good deal when our way was up-hill, ran to and fro within bounds of a very strict discretion, and gave me nothing but the simple flattery of her canine affection. She was a steady every day person, who had even a sense of Sunday in her nature. When I went out on Sunday morning without offering to follow me as usual, she jumped into the window-sill, and from that post of observation watched for my return from church. But a time came when, having bought a promising lot of patients, I left the far west, and traveled to the centre of the earth (within Great Britain). Fan went with me, and being unused to the punctualities of traveling, was lost upon the way at Bristol.

Dark visions of an unprotected female in distress haunted me all the way to this old house at Ortemly, in which I have grown gray. I knew only one man in Bristol, a long, lank, rambling bawker, who had reached sometimes even the distant Somerton. He might be at home or abroad; at any rate, to him I wrote, as to the one possible helper. By him the forlorn damsel was found under the protection of a backney coachman, and in a few days she reached me in a hamper, labeled "A Live Dog, with Care."

The house I took was haunted. For a black terrier who had once lived there, it was a Yarrow constantly to be revisited, and to be explored daily in every corner. The terrier lost no time in declaring his affection for the mature beauty from the west. His love was returned, and blessed with a litter of four puppies. Puppies are not born to be drowned. These were, moreover, very handsome. So they were allowed house-room until they were of age to be sent out into the world. When they were all of age to run with ease, the sedate Madam Spaniel, with her four little ones behind her, and the terrier ghost usually at her side, waited for me outside the doors of all the patients I had in the village, and dogged my heels in all pedestrian excursions. But the tender puppies required sometimes to be carried. Three of these puppies established themselves in other homes. The mother suddenly died in the midst of her dinner. There remained to me, therefore, only one dog—my last dog, Master Squeak—in doors; while out of doors there was a friend on all tours in the stable—my first horse.

The dog Squeak was my last friend on all fours. Upon his being shot, I married. He grew to be the handsomest and busiest and merriest dog in the world. The quickness of his sympathy met every shade upon the face he watched. In doors, his mind was his master's; out of doors he was his own master, and it was for him always to appoint, and for nobody to dicrate whether he should be out of doors or in. As a puppy, he was a devourer of literature, and ate most of the corners from my books and journals. So he became wise. As to his other meals, he was not to dine with me, forsooth! A tyrannical housekeeper, if he were heard to be near me at dinner time, dragged him away by the neck. Very well. He had only to take care that he was not heard. He announced his arrival by a sly scratch at the door, audible by no ears beyond mine, and ate his meat as still as a stuffed dog—which he always was when he had finished. He was not to sleep of nights at the foot of my bed, forsooth! A tyrannical housekeeper resolved to lock him out. Very well. He had only to scramble up to the kitchen roof, whence it was an easy leap into my bedroom through a window-pane. He was a bold dog who did not regard that window as any obstacle to his advancement. Before I understood him well, I shut him up once or twice in a room, when I did not wish him to go out with me; but as he always came after me with a flying leap through a clatter of glass, and broke the window-frame itself sometimes, he had his way left open for him. He was a right fellow to make his way in the world. The bedroom window I allowed to be mended seven

times. Money was spent on glaziers' and walking-stick on admonition. Soon tired of beating my dog, I allowed him to beat me. He was still remorselessly to be locked out; I had therefore the prudence to leave him the seventh smash in my window as an entrance hole. The only difference made by the housekeeper's discipline was that the dog had a run in the mud every night to give him a new relish for his corner of the counterpane. As for tying him up, nobody thought of that. He was such an incarnation of determined freedom that nobody short of a King of Naples could have thought of putting him in chains.

Once, indeed, he was in bondage; caught in a preacher's wire during his independent rambles through adjoining game preserves, where trespassers were rigorously to be prosecuted and all dogs were to be shot. We lost our comrade for two days, and then he came home, dirty, starved and haggard, with the wire about his neck; he had broken it after some thirty hours of struggling. But there was a twinkle of roguery in his eye even then, and he was off to the preserves again, certainly none the later for his lesson.

We had a farmyard near us, from which my friend upon all fours, when he stayed at home, would hunt me up a fowl or the old cock himself sometimes, felling in the indignant bird unhurt between his teeth, and depositing him in triumph at my feet upon the study floor. What man could quarrel with his generous and fearless nature? He never feared and never hurt any one in his life, except some other dog who challenged him to fight. He simply disregarded pain. If a dog, not smaller and weaker than himself, insulted him, he fought and would fight. Beat him who might, he meant to have his fight out, and he always finished it to his own satisfaction. For the weak he had heroic tenderness. A little kitten used to nestle on his clean warm coat when he lay sleeping, and regarded him as a feather bed. If he awoke and found the kitten asleep on his back, he would lie still like a kind-hearted gentleman. The sight of a bone itself would not induce him to leap suddenly up and throw her off.

Yet he liked bones. He has disgraced me by following me out of a patient's house with a large piece of bacon in his mouth. He was bold enough, when tempted by the savor of a knuckle of veal boiling in the pot, to put his fore-feet on the side of a patient's kitchen fire, and jerk the meat out of the pot upon the kitchen floor. And he made friends with those whom he thus persecuted. To some he boldly gave his confidence, visiting at their houses on his own account, not as a mean haunter of back doors, but as a friend of the family. If he liked people, he visited them fairly, walked in to their drawing-rooms, and sat down with them for half an hour or so, by their fireside. He was the cleanest of true gentlemen, for he swam twice a day across a broad and rapid river; he was not the dog to let himself be conveyed with me ignominiously in the ferry-boat over the water that he ran through the middle of my rounds. Of course there could be only one end to the life of such a dog. He was shot by a gamekeeper.

**HARTFORD DOG SHOW.**—The bench show at the Charter Oak City last week proved even a greater success than was anticipated. Owing to the fact that the close season had but just expired, sporting dogs were comparatively few in number, though by no means inferior in quality. Mr. Burrell of Springfield, had a fine collection of red Irish, and liver and white setters, one of the latter with a litter. There were also several handsome pointers. Mr. J. Quin exhibited some fine cockers and collies, while in the St. Bernard class was seen Mr. Arthur Nichol's Jack, who saved his master's life while in Switzerland; but the most attractive animal was a diminutive black and tan owned by A. E. Lines of Bridgeport, which though two and a half years of age, weighed but two pounds. The following are the awards:

- Native English Setters—First prize, dog, to Jack, S. J. Pierce, Springfield, Mass.; bitch—Cosey, Ethau Allen, Pomfret Centre, Conn.
- Irish Setters—1st Best dog, Tyler, G S Merrit of Hartford; bitch, Stella, W E Hudson, N Manchester. 2d Dog, Bluff, C S Davidson, Hartford; bitch Gipsy, S J Pierce, Springfield.
- Native Setters—1st Arful Dodger, Chas Denison, Hartford. 2d Pat, John Johnson, Manchester. Best puppy, Red, O S Kelsey, Hartford; bitch Lila, Clarence Lester.
- Gordon Setters—1st Nell, D P Atwood, Southington; Dog Max, W E Hudson. 2d Maggie, W E Hudson; Pup, Duke II, E S Brewer.
- Pointers over 50 pounds—1st Best Dog, John Warburton, New Britain; 2d Rap, John M Burke.
- Pointers under 50 pounds—1st Mort, H T Jones, Hartford, Bitch Nell, J L Woodbridge; Queen, W R Tefft; Duke, S G Phelps.
- Pouter puppies—1st Gungachgoock, J L Woodbridge; 2d E S Brewer.
- Cocker Spaniels—1st Ned, R H Ashmard; 2d Charles I Mills, Jr. Fox Hounds—1st Loring Loomis, Hartford.
- St. Bernards—1st Jack, Arthur Howard Nichols, Boston; 2d Leo, Charles Herold, Hartford.
- Newfoundland—1st Major, Frank E Hastings, Hartford; 2d Major, A K Brocklesby.
- Cocker Spaniels—1st Fan, James Ferris; Spot, Dr H O Bullock.
- Black and Tan—1st Gyp, A E Lines, Bridgeport; 2d Daisy, Mrs Kirk, Bloomington, Ill.
- Skye Terriers—1st Tatters, A W Rood, Hartford; 2d Poser, Warren Barr.
- Miscellaneous—1st St Bernard pup, Bruno, Frank E Hastings, Hartford.
- Bull Terriers—1st Beauty, G D Phelps, New York; 2d Crib, H L Frary, New Britain.

**THE TENNESSEE FIELD TRIALS.**—In response to the applications of numerous correspondents we give below a copy of the rules to govern the Field Trials to take place next month at Nashville, Tenn. As now amended and corrected they admit of little criticism:

- Rule 1. Managers of field trials must advertise the names of the judges at least thirty days before the trials take place, and in the event, from any cause, that any judge or judges are prevented from acting, then the executive committee shall elect a judge or judges to fill all vacancies.
- Rule 2. Two dogs shall be run at a time, to be drawn by lot in the usual manner, except that no two dogs which are owned or trained by one person shall be run at once. When two such dogs are drawn together, one shall be run only, and he with another dog which shall be immediately drawn, and the dog which was drawn and left over shall be drawn for again. If, at the latter end of a trial, it be found impossible to avoid running two dogs together which are owned or trained by the same person, it may be permitted.
- Rule 3. In this class if dogs do not drop to shot but remain quiet in a manner not liable to do any harm, it shall not be considered a demerit.

Rule 4. If in the opinion of the judges the day is such that a dog running from 12 to 2 p. m. runs under disadvantages owing to the weather, the judges may, if the owner demand it, give such dogs another trial.

Rule 5. Each dog shall have the opportunity of making five points on game. Having made five points they shall be taken up and their positive totals for merit shall be reckoned according to the scale of points in rule 6. The privilege is granted the judges of ordering any dog up when the score of such a dog is such that he cannot win.

Rule 6. Positive points for merit: For each point, 5; back ing, 0 to 5; stameness, 0 to 7; retrieving, 0 to 5; quartering and ranging, 0 to 7. Quartering and ranging is understood to embrace ranging far or near as the necessity of the case may require. Style, 0 to 5; pace, 1 to 12. Negative points for demerit: Each false point, 3; each chase, 3; breaking shot, 3; flushing counts a lost opportunity to point; failing to back counts a lost opportunity to back. Dogs to have one opportunity to back; the score to count for or against the dog, as the ease may be. Two chases on birds to put a dog out of the stakes.

Rule 7. In case of running off ties, each dog shall have the opportunity of making three points on game. Ties can be divided by the consent of all the owners of dogs making the ties. Should it be impossible to run off the ties the same day, they shall lie unrun off the day following.

Rule 8. No spectators are allowed nearer the handler of dogs than seventy-five yards to the rear. No spectators or others shall make any remarks about the dogs or judges in hearing of the judges; such persons so offending shall be expelled from the grounds by the judges, who shall order the special police to eject such persons offending. Should any handler of dogs annoy the judges in any way, the judges shall order such handler of dogs to desist; should he still annoy the judges, the judges shall order such dogs as he is handling up and out of the race. The privilege is granted the handler of dogs to ask the judges for information or explanation that has a direct bearing on any point at issue; pending such question the handler of dogs shall order his dogs in, and cease to hunt until the judges have rendered their decision.

Rule 9. Pointing hares, sink birds or turtles shall not be considered a false point; but pointing any bird but those generally considered game birds shall be deemed a false point. Any dog making a false point and discovering it to be such himself, without encouragement to go on, shall not be penalized for making a false point.

Rule 10. Under the head of retrieving, the judges will only allow those dogs the maximum number of points who do their work without the handlers going with them to show them the bird, and without mouthing or mutilation.

**PUPPY STAKES.**  
Rule 1. Dogs over eighteen months old shall not be eligible for the puppy stakes. Rules otherwise same as above.

**BRACE STAKES.**  
The rules shall be the same as those for all aged pointers and setters, except that two dogs owned or trained by the same person may be run together; and that in case one dog of the brace retrieves, and the other does not, only one half of the number of points for retrieving shall be allowed.

Next week we hope to announce the judges. Exceptions have been taken to their appointment so long before the trial, but we cannot think it will in the least influence the decisions as with the above rule the best dog only can win. The trials open November 2d.

**SALMON FATAL TO DOGS.**—The *Pittland Bee* says salmon, when eaten by dogs, invariably proves fatal, and many valuable dogs are lost in this way, the owner being ignorant of the cause of death. Hunters avoid accidents of this kind by feeding salmon to the nursing puppies, and it does them no harm to eat the fish afterward. This is an important item when valuable dogs are kept near streams frequented by salmon.

This is by no means the first time the above statement has appeared in print, and it seems needless to say that the yarn has no foundation on fact. The story evidently originated from the death of dogs after eating canned salmon, their decrease not being due to salmon, but to the canning, by which a large quantity of lead is incorporated with the fish. Whole families have been thus poisoned, but the difficulty is easily obviated by placing the can in hot water and heating thoroughly, raising the temperature to the boiling point.

The dogs of Siberia and Alaska live almost entirely upon salmon, and a harder race of mongrels rarely exist; fish also constitute almost the entire food of the Labrador dogs. Their bones that may lodge in the *Prima via* only are to be feared. With nursing puppies the chances would then be far greater for the death of the dogs, as their alimentary apparatus at this time is entirely unfit for the digestion of fish.—Ed.

**AN INTELLIGENT DOG.**—We hear much of the intelligence of dogs, and the many wonderful and well vouched instances that are recorded can scarcely cause surprise at any new proof of sagacity. The following from Belgium has been commented upon severely, but there seems no reason for doubting that dogs are capable of all the reasoning faculties here implied:

A certain Monsieur N—, going on foot from Leuze to Lessines, in Belgium, took with him his dog, which he was anxious to get rid of; but as he was unwilling either to drown him or to shoot him, he resolved to lose him on the way. The dog, who, instead of kind words and caresses, received nothing but threats, seemed to understand his master's project; he kept quite close to his heels, and would not leave him for a moment. N—, obliged to sleep out for that night in order to finish his business, went to the inn, and said to his four-footed companion, instead of good night: "To-morrow, you rascal, I shall take the train, and you will have to walk about here." He then went up to his room and went to bed.

The next morning, great was N—'s surprise to perceive when he got up that one of his socks and his waistcoat were missing. The landlord when questioned maintained that no one could have taken these articles as no other stranger had been lodged in the inn. They were all searching and wondering, when they found in a corner of the house the dog, who had been so threatened the evening before, lying upon the stockings and waistcoat of his master. The poor animal seemed to have wished in this way to prevent his master from starting without him. N—, admiring the sagacity of his dog, no longer tried to get rid of him.



Park, Newark, N. J., last Monday. Following is the summary: One Hundred Yards.—First Heat—Henry Lauterbach, New York, 1; Thos F Randolph, R C, 2; H C Rommel, F B C, 3. Time, 11s.

TO SPORTSMEN AND DEALERS IN SHOT.

At the Convention held at Batavia, N. Y., June, 1873, by the "N. Y. State Sportsmen's Association," a standard of sizes (diameters) for shot was adopted, to be known as the "American Standard," commencing with No. 12, to measure 5-100 of an inch, and each size increasing 1-100 of an inch to the largest.

The following table will show the difference between the actual number of spherical shot of given diameters required in each ounce, as compared with the assumed number, and that the number of pellets in an ounce of such shot cannot bear the proportion there assumed, and still claimed by some parties.

Table with columns: Increased number of Pellets in an ounce, Assumed number of Pellets in an ounce, Increased number of Pellets on each size, Correct number of Pellets in an ounce, Standard Diameters, and NUMBER. Rows correspond to shot sizes from No. 12 to No. 1.

It will be seen by the above comparison that this assumed number of pellets to the ounce, shows an irregular increase, and proves at once that it is incorrect. The increased number of pellets from BBB to BB, being less than from B to BBB.

Many inquiries from Sportsmen, as well as misrepresentations made by some parties who do not make shot up to the standard, induce us to offer this explanation. When the "American Standard" was agreed upon, we at once adapted our machinery to its manufacture.

Our attention has been recalled to some assertions made some years ago by the makers of unscrupulous parties, and now re-published in various ways with the evident design to injure the sale of our shot, pretending that the term, "Patent Finish," which we have used for twenty years as a trade mark to designate its character, is nothing but an extra quantity of plumbago, beyond what is ordinarily used to polish shot, and that such surplus "leaves the gun," and is very dangerous to the user.

We know that intelligent and well-informed Sportsmen will laugh, as they have laughed, at the subject of this paragraph, but we are assured by some buyers that this notice is necessary to protect our business from damage.

New York, September, 21, 1871. ATLAS & BROTHERS.

NOTICE TO SPORTSMEN.—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address.

Sportsmen intending to winter in Florida will do well to send their boats, camping outfits, stores, etc., by the schooner Harriet Gardner, which sails about the 15th inst. See advertisement of Ferguson & Wood, 46 South Street, elsewhere.

AMERICAN TEAM PORTRAITS.—Delay in receiving the photographs has obliged us to defer portraits of American Team to a subsequent issue.

Answers to Correspondents.

No Notice Taken of Anonymous Communications.

A number of anonymous correspondents will understand why their queries are not answered, when they read the lines at the head of this column.

C. W. C., Boston.—When does the closed season in Virginia end, Oct. 1, or Nov. 1, for quail or partridge? Ans. Nov. 1.

E. H. M., Worcester, Mass.—Did any member of the Irish Rifle Team, while in this country, shoot a match with any American, standing position? Ans. No.

A. C., Brushton, N. Y.—Ans. There is no wild rice in the market at present that we can hear of. Write to A. V. Denio, Harwood P. O. Rice Lake, Ontario, Canada.

A. G. B., New York.—Will you please inform me, through the columns of your paper, whether Lower California belongs to the United States or Mexico? Ans. To Mexico.

J. E. F., City.—Please inform me of some good ducking resort for the last of November within two hours of New York. Ans. Go to Lane's, Good Ground, Long Island.

F. H., New York.—Please tell me where I can see the stag hound that took first prize at the bench show at Gilmore's Garden in May? Ans. J. B. Miller, of Newburg, N. Y., has them.

INDEX, St. Louis.—Will you be kind enough to advise me how to use the arcaea nut for worms? Ans. 12 grains three times a day on alternate days. The morning of the day between give a dose of oil.

W. W. L., Clarksville, Tenn.—Where can I procure the carbolic soap (Buchan's) that is recommended for mange and fleas? Ans. C. L. Pleasant, 61 West Houston Street, corner of Wooster, N. Y. City, 25 cents.

J. J. P., Bellefontaine, Ohio.—Your correspondent Cuyler mentions, in your paper last week, Clarke's expansive augur bit for boring holes in cartridge blocks. Where can I get one? Ans. Through any hardware merchant.

Dr. E. S., Cleveland.—Can you give me the name of the person who first described the "Michigan Grayling" and brought it into popular notice, also the date? Ans. Dr. John Parker, dentist, of Grand Rapids, Michigan, date about 1868.

L. J. B., Phila.—Please inform me as to what is the proper care of gold fish kept in small vases; what is their food, and what other requisites are necessary to keep the fish in a healthy condition? Ans. See our last issue in column of Correspondents.

W. W., Washington.—Will you please inform some of your readers who your able Washington correspondent is? Ans. The Washington letters in FOREST AND STREAM are from the pen of Mr. R. F. Boiscan, the Senate correspondent of the associated press.

Dubuque, Dubuque, Iowa.—1. What is the shortest distance at which any position is allowed by the rules of the N. R. A? 2. Can I obtain photos of the American Rifle Teams of '74, '75, '76 '77, with price? Ans. 1, 500 yards. 2. Yes, from Fredricks, photographer, N. Y.

ISAAC P., Philadelphia, Pa.—I would ask you to inform me of some desirable place within 15 miles of Philadelphia, either in Pennsylvania or New Jersey, where I could find plenty of quail, and also be able to hire dogs? Ans. Go to Berlin, Md., or to Capt. Ayer's, Ocean City, Md.

H. S. B.—What must I have done to my muzzle loader to make it shoot buckshot closer? Was told to have it bored out which improved it for fine shot, but made no better shooting with buck, though they chambered well. Ans. You had better use wire cartridges for the buckshot.

TAR HEEL, Wilmington, N. C.—At what season of the year do dogs shed their coats? I have heard that the coat of the dog's ear is never shed. Is this true? Ans. Usually in the spring, but it depends somewhat on the date of birth of the animal. 2d. It is shed as well as elsewhere.

"Texas Jack," Newport, R. I.—Where, on the Missouri, Kansas and Texas Railroad, would you advise me to go this fall to find good, profitable gunning? What kind of game would I find there? Ans. Good quail and chicken shooting around Schell City, Mo., and Chetopa, Kan. Some deer.

G. A. C., Middletown, Conn.—Will you be so kind as to say in your next issue what number I saw of FOREST AND STREAM that contained the receipt for tanning skins in the Indian mode? Ans. We do not know the number of the paper, but the same receipt is printed in "Hall's Gazetteer," page 657.

W. B. A., Greenfield, Mass.—Will you please inform me how to stop rust from eating gun barrels after it has got well started? I have been very careful not to let any rust get on them, but I notice that there are a few places where it is eating. Ans. Use Eaton's Rust Preventative, bellinouty oil of kerosene.

A. W. V., Deep River, Ind.—I desire to attend a course of Lectures at the Eclectic College of New York. Will they accept a graduate of the Bennett Medical College by paying the matriculation fee only? Ans. Unless you are a practitioner of three years standing since graduation, you will have to pay full fees.

J. W. B., New York.—Will you please tell me whether a highholder comes under the head of a woodpecker? Ans. The highholder, known also as the ficher, yellow hammer, golden or yellow-winged, is a species of woodpecker belonging to the family Picidae, genus Colaptes. It is known to scientists as Colaptes auratus.

G. H. B., Randolph, Mass.—I have a small and valuable black and tan, on which yesterday in the course of thirty minutes there came a hard lump the size of a walnut just under his ear, and so remains. Will you kindly inform me what to use as a remedy to lessen it? Ans. It will probably disappear of itself soon. If not, apply Iodine ointment.

A. E., N. Y.—1. Can you inform me where I can buy bags to hold tobacco and cigars made of buffalo's bladders by Indians? 2. Where can I get plans and estimates of cost of portable houses and cottages of wood for export to the West Indies? Ans. 1. Address Hudson Bay Co.'s factor, Winnipeg, Manitoba. 2. O'Brien Brothers, Yonkers.

A. B., Ferrisburg, N. Y.—In the ordinary rules of shooting prize matches, when the highest score is made by two persons, do they shoot it off for first prize at one end and let the third take the second prize? or do they take the first and second prizes? Ans. They take first and second prizes except in class shooting, in which case the second highest score takes second prize.

G. C. P., New York.—Please advise me what would be considered a good pattern for a 31 inch, 13 bore, 7/4 cylinder-bored gun to make, 1 using 1 1/2 oz. of Tatham's No. 1 shot and 2 1/2 drs. of powder, the distance to be 46 yards at a 30 inch target? Ans. The charge of shot is rather heavy for quantity of powder; ought to cover a 23 inch circle well enough to kill a bird.

ATHLETICS AT MONTREAL, Oct. 6.—The athletic games held here were participated in by local athletes and several visitors from abroad.

The running high jump was won by B. Summerhays, who jumped 5 feet 1 inch to E. H. Brown's 4 feet 9 inches. In the 100 yards handicap race the entries were: J. J. Shea, Burlington, N. J., 10 feet; W. Hilton, St. Albans, Vt., 10 feet; W. C. Cousins, 21 feet; E. H. Brown, 26 feet; McIver, scratch; Wilson, 17 feet; McKenzie, 24 feet; Quinlan, Charlotteville, 10 feet; Stewart, 17 feet; Leonard, 30 feet. In the first heat Hilton, Shea, Cousins and Brown started, Hilton winning, with Cousins second. In the second heat McIver won, with McKenzie second. In the third heat Stewart won, with Quinlan second. The five mile walking race was won by H. L. Malby from the start to the finish, B. Gorien second. At the second trial in the 100 yards handicap race, the first heat was won by McIver, with Stewart second. The second heat was won by Cousins, with Hilton second. In the one mile amateur championship Allau won, with Downs second and Bailey third. Time, 5m. 3s.

ST. GEORGE VS. STATEN ISLAND.—Hoboken, Oct. 4.—A match between the second elevens resulted in a score of 148 to 105 in favor of the latter.

GALE'S WALK.—W. Gale, who started at Lillie Bridge Grounds, London, Eng., on his 1,500 miles in 1,000 consecutive hours, accomplished his feat, finishing his long walk Saturday, Oct. 6.

Yachting and Boating.

HIGH WATER FOR THE WEEK.

Table with columns: Date, Boston, New York, Charleston. Rows for Oct. 12, 13, 14, 15, 16, 17, 18, 19.

Nereid Boat Club—Goranus Bay, L. I.—The annual regatta of this club, which was rowed Oct. 8, consisted of two races, as follows:

Four-oared gig race.—Entries: The gigs Panope, Endora, Dione and PUNCH. The course was two miles, and the PUNCH won easily.

The second race was between Argonauts and the Nereids, which was won by the former without difficulty.

CENTRAL HUDSON YACHT CLUB.—The autumn Corinthian race of this club was sailed on the Hudson, at New Hamburg, last week. The Fidget beat the Dare Devil in the first class, and the Shadow won the race over the Lulu in the third class.

NASSAU BOAT CLUB.—In the annual fall regatta of this club, which was rowed last week on the Harlem, the first event was a senior single-sculls race for the championship of the Club and the Brown medal. The course was from the boat house of the N. Y. R. C. to High Bridge. The entries were J. N. Abced, Jr. and J. D. Foot. The former won in 16m. 21 1/2 s.

The junior scullers' race for the junior championship and the Appleton Cup; distance one mile, from McComb's Dam Bridge down to the New York Boat Club house. The contestants were A. T. Klotts, W. S. Wilson and J. J. Gunther, Wilson was the winner, 7m. 14 1/2 s.

The four-oared scull race for pewter mugs, distance one mile, between two crews, "heavy weights," Messrs. George W. Scott, James G. Janeway, Charles F. March and J. D. Foot, and "light weights," Messrs. Dudley Hall, W. C. Floyd Jones, A. McDougal and James B. Robert was won by the N. Y. B. C. house to the dock below the Maccomb's Dam Bridge. The light weights won in 7m. 43 s.



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INFLUENCE IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY:

PUBLISHED BY

*Forest and Stream Publishing Company.*

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.

[POST OFFICE BOX 2392.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

**Advertising Rates.**

Inside pages, nonparcell type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 60 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\*\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, OCTOBER 11, 1877.

**To Correspondents.**

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

**CHARLES HALLOCK, Editor.**

T. C. BANKS,  
Business Manager.

S. H. TURKILL, Chicago,  
Western Manager.

**CALENDAR OF EVENTS FOR THE COMING WEEK.**

*Friday, Oct. 12.*—Trotting: Frederick, Md.; Leavenworth, Kan.; Columbus, O.; Beacon Park, Boston. Base Ball: Boston vs. Rochester, at Rochester; Alaska of N. Y. vs. Chelsea, at Union Ground.

*Saturday, Oct. 13.*—Running meeting at Jerome Park, N. Y. Base Ball: Monticello of Jersey City, vs. Jefferson, at Carlstadt; Crystal vs. Alaska of Staten Island, at West Brighton; Lowell vs. Fall River, at Lowell, Mass.; Athletic vs. Alert, at Philadelphia; Boston vs. Buffalo, N. Y.

*Monday, Oct. 15.*—Trotting: Point Breeze Park, Philadelphia; Albany, N. Y. Running meeting at Nashville, Tenn. Base Ball: Hartford vs. Alaska of Staten Island, at West Brighton; Alaska of N. Y. vs. Quickstep, at Centennial Grounds; Boston vs. Chicago, at Chicago.

*Tuesday, Oct. 16.*—Trotting as above. Mystic Park, Medford; Cincinnati, O.; Massillon, O.; Fleetwood Park, N. Y. Base Ball: Boston vs. Chicago, at Chicago, Ill.; Alaska of New York vs. Quickstep, at Centennial Grounds.

*Wednesday, Oct. 17.*—Trotting as above; also at Princeton, N. J. Running meetings at Nashville, Tenn. and Raleigh, N. C. Base Ball: Alaska of N. Y. vs. Orange, at Centennial Grounds. Regattas: Metropolitan Rowing Association, at Elm Park, Kill Von Kull; Single sculls, free to all, at Owego, N. Y. Cricket match, under auspices of St. George's Cricket Club.

*Thursday, Oct. 18.*—Trotting as above. Running meetings as above. Base Ball: Alaska of N. Y. vs. Alaska of S. I., at Centennial Grounds. Cricket as above.

—We hear many complaints from subscribers, who find that post masters and their assistants remove the FOREST AND STREAM from the wrapper, and read it before delivery. We have the names of several offices where this is carried on. A repetition will cause a complaint to the Post Master General. Post master or clerk may obtain the paper gratis by procuring us a club of five.

**CLERICAL SPORTSMEN.**—Dr. Henry M. Field, editor of the *Evangelist*, has some credible comments on ministerial hunting and fishing. The annals of sporting show the names of many prominent clergymen who have proved themselves no mean adepts with the rod and gun, and we appeal to the parishioners of the hundreds of pastors who have been off this summer to the woods and streams, if their sermons have not gained something from their vacation sports.

**A NOBLE AMBITION.**

THERE is now in New York a young man who has lately attained a most creditable fame as a scientific explorer, and who is preparing for another departure to South America, the field of his former operations. We refer to Mr. Ernest Morris, who, by his zeal and intrepidity, is fast winning the admiration of the whole country.

Ernest Morris is a native of Indianapolis, Indiana, where his enthusiasm in natural history and desire to be a discoverer manifested itself in earliest boyhood, and, fortunately, was fortified by his parents. At seventeen, with two companions, a man and a boy, Morris embarked on White River for a summer voyage; but the boat soon upsetting, the interest of his companions in the project was quickly lost, and they turned back. Morris, however, picked up the boat, baled it out and paddled down stream alone. On reaching the Ohio he went down to the Mississippi, and so on to its mouth, and, with only a few dollars in his pocket, made his way to Florida to explore the everglades. The collection of shells and insects that he brought home with him he sold for a considerable sum, and devoted himself for some time thereafter to study.

A year or two later, however, he left his home again and sailed for South America—a boy of nineteen, poorly equipped, untried, but filled with intense enthusiasm and made of the right stuff. This expedition was, however, mainly a preparatory experience. He traveled up and down the Amazon, made valuable collections, learned to speak Portuguese and Spanish fluently, became acquainted with the natives and collected information for future use.

Returning to this country for a brief visit, he again departed for South America, something over a year ago, landing in Brazil with \$15 in his pocket, and started upon an exploration of the Tapajos, one of the larger southern tributaries of the upper Amazon, traversing a region totally uninhabited except by Indians, and almost entirely unknown to geographers. It was a most noteworthy undertaking, and carried forward in the midst of a life of peril and romantic adventure in the most creditable manner. He reached a point to which no white man had ever before penetrated, and proved both his skill and endurance. Upon this trip also the young explorer made as large records and collections as he could bring away, and among other things obtained a number of heads of Indians, preserved in a singularly perfect state by a process of smoking known only to the tribes among which he lived. These heads serve as trophies of victory, like the scalps of our Northern red-skins, and have attracted much attention. He was offered \$150 for each one before bringing them to the United States, but did not wish to dispose of them at that time. Now, however, he is anxious to sell them to some museum in this country. If they can be sold during the next few weeks he will be able to prosecute his explorations independently; if not, he is desirous of acting as collector or agent for some museum or society, and many such an institution will no doubt be glad to avail themselves of this opportunity.

The plan Morris intends to pursue in his proposed expedition, is as follows: He will sail from this city early this month of October, and, having made his way up the Amazon, will ascend the Xingu, one of its largest tributaries, which is utterly unknown beyond the rude accounts of Indians and half-breed traders. Even the Jesuit missionaries, who have penetrated further than any other white men, have been deterred from its ascent by the chain of turbulent and dangerous rapids in its stream and the known ferocity of the dwellers on its banks.

Morris describes the Xingu, at its junction with the Amazon, as "a broad black river, flowing between precipitous banks, heavily wooded with tropic vegetation." He intends to organize a large party of Mandurua Indians to carry his boats past the rapids, and beat back the hostile natives if they should attempt to oppose his passage. In his last expedition he reached the head waters of the Tapajos, and ascended one of its main tributaries, the Cururu, for some distance. The natives told him that the Cururu was only a canal connecting the Tapajos with the Xingu, and he proposes to determine this point definitely. He believes, however, that the Cururu does not join the two rivers, but rises only a few days' journey from the Xingu, so near perhaps that the waters of the two streams may mingle during a heavy flood. On the banks of the Cururu, his friends the Campanarias live, and he feels certain that they will assist him in his new undertaking. After exploring the unknown region through which the upper Xingu flows, he intends to go down the Cururu to the Tapajos and then ascend the branch called the St. Manuel, which the natives allege to be the continuation of the main stream. He thinks, however, that the Juruna is the largest upper tributary of the Tapajos, and he may decide to go up this stream instead of the St. Manuel. In either event he intends to penetrate to the great water-shed which lies between the headwaters of the Tapajos, Xingu and Tocantins, and the Paraguay River, the last the main stream of the Rio de la Plata. The region of this water-shed has never been explored, and if Morris succeeds the results of his exploration will be of undoubted value. After having made an examination of this region Morris intends descending the Paraguay and the Rio de la Plata to Montevideo and then sail from that port to this country, carrying with him the fruits of his expedition. He is determined to start on this tour of exploration poorly equipped rather than not at all; and we bid him good speed. It is a worthy ambition and one which ought to excite emulation everywhere.

**GAME PROTECTION.**

THE GAME LAW IN CONNECTICUT.—Sportsmen in Connecticut are now improving the limited time which the law allots to them for shooting. There are few localities more prolific of small game than certain sections of Connecticut. That State is apt to be overlooked by outside sportsmen, who generally travel much farther for their game and fare worse; but for rabbits, ruffed grouse, snipe, ducks, and that comparatively rare bird the woodcock, we know from long experience that it is a locality to delight the soul of the gunner. A valued correspondent sends the following timely notes and comments:

HARTFORD, CONN., Oct. 1, 1877.

To-day the game law is off for this State, and for the coming three months the field is open to sportsmen to enjoy their tastes to their hearts' content. But the few weeks of the close season were most memorable by the exertions of the game clubs in the State in the enforcement of the law, and a lesson has been so thoroughly taught this season that we look forward to happy results in the coming years. Since my last letter on this same subject, giving the results of the week ending with September 22, the good work has been steadily pushed. Monday, September 24, the attorney of our game club and his detectives left on the early train for Williamstown, where a carriage was in waiting which took them over to Danielsville, where a breaker of the law was arrested, tried, convicted, and made to pay a fine of \$22 and costs, but he afterward appealed to the Superior Court of the State.

The towns of Brooklyn, Plainfield and Norwich were visited in their order, and the game law made a reality to the violators of it, and not a myth as it has been in past years. As was stated in my last letter, no true, honorable sportsmen were found among those convicted, but the men were of the most lawless kind—a dread to farmers at all times and seasons, and their inability to move in the matter before was tempered by the chances of having their crops destroyed and their barns burnt.

An underground railroad seems to have been established throughout the State, and the birds were shot out of season for gain, packed in boxes labelled "butter" or "cheese," "keep cool," and thence transported to Providence, Newport or New York markets, a firm in Norwich being the collectors of the game and most interested parties. In fact a letter in the game club's possession, in answer to a decoy from one firm in this State, stated in the first part of their note "that although the game laws of Connecticut strictly prohibit the shooting of woodcock, quail, partridge, etc., before October 1, we will give you such and such prices per dozen for the above goods," showing their perfect acquaintance with the laws, but desire to break them nevertheless. Next spring we propose to handle the laws on the netting of brook trout in like manner, and we betide the unfortunate victim who is captured. The good done by our attorney and his detectives can hardly be measured to day, but their results will be of lasting benefit to the State of Connecticut.

T. S. S.

—Mr. E. C. Bradley, of Dunkirk, N. Y., informs us that since the boys have sown wild rice in the vicinity, large quantities of rails have made their appearance over there, where they have never been seen before. Rails are found in Detroit, and as far west as the rice lakes of Minnesota; but they are not now considered by the gunners game enough to shoot. Perhaps, one of these days, they will be as glad to make a bag of these delicious birds as the Delaware pushers are. We must say, however, that the rails of the West are not generally in good condition except when found in the rice fields.

VIRGINIA—Tappanhook, Oct. 5.—A Fish and Game Association has been organized with the plans and purposes of similar clubs elsewhere. Virginia sportsmen are taking steps in the right direction, and numerous sections are at last awakening to the necessity of efficient action.

FLORIDA.—A new game protective club has been organized at Tallahassee. The organization promises to accomplish much good for Florida, and the name of Judge Westcott, as its president, is a sufficient guarantee of its success.

CALIFORNIA.—The attempt to introduce English pheasants from New Zealand, which has not met with success heretofore, has again been made by some San Francisco sportsmen. The new birds which arrived the other day have been placed on Goat Island, where it is hoped they will thrive.

**"VIRGINIA VIGILANTES."**

[FROM OUR SPECIAL CORRESPONDENT.]

VIRGINIA CITY, Montana, Sept. 10, 1877.  
IT is, I think, no injustice to most readers, though well-informed, to ask them to turn to a map of the Territories, and refresh their memory as to the location of this enterprising little town, which a decade ago was all there was of Montana. The southeastern corner of the Territory is continued into a triangular portion jutting southward between Wyoming and Idaho, the Rocky Mountains forming the boundary. In the centre of this corner the town is situated among the hills in which the Missouri takes its rise. The little creek at the town is a tributary of the Stinking Water River which flows into the Jefferson, the valley of which is not far west of the town; while a range of high hills only separates the village from the Madison Valley. The Madison and Jefferson both flow north and unite about fifty miles above Virginia City, where the Gallatin River comes in from sources a few miles east of the Madison's. The three streams together make the Missouri, and their point of confluence is known as the Three Forks of that mighty stream. It is the county seat of Madison County—a county four times as large as the State of Rhode Island, containing 60,000 acres of improved land, 40,000 head of cattle and sheep, 5,000 horses and mules, and \$500,000 of other property, and casting about 1,200 votes. It is the depot of supplies for the whole county, and the entrepot for the gold and silver produced in the region, nearly \$500,000 worth of which was shipped from here last year. As for the town itself, it contains eight or nine hundred people, is miserably situated in a narrow ravine, and has few beauties, being little more than a mining camp perpetuated. Such, hastily, is the Vir-

ginia City of to-day; but its history is full of exciting interest.

All the information the world had of this region until 1863, was that derived from the story of the explorations of Lewis and Clarke, who passed along the Jefferson in 1805. Trappers and hunters in the employ of the fur companies were its only visitors. But in 1863 prospectors from California entered the edge of the Territory, and finding gold on Grasshopper Creek, one of the western sources of the Jefferson, established a mining camp which they called Bannack, after the Indians in that vicinity, and went to work. There is now a town of considerable importance and good promise there, and the mines are still productive. But some of the men were restless, and a party under the lead of James Stewart started on a still longer trip, pushing clear over into the Crow country on the Yellowstone, where the Indians "traded" with them until nearly all their property was gone, and then came very near "purchasing" their scalps.

Controlled by fear of the Crows, defeated in their designs, and robbed of their horses and provisions, the party started back, little thinking that their calamities were blessings in disguise, and every step of their slow retreat was one pace nearer Fortuna's golden boon. They chose a more southern route than they had followed on the advance, the Indians following them out of the Crow country, and on May 27, crossed the divide between Virginia City and the Madison, halting to eat their dinner at the head of the gulch, which was filled with a dense growth of underbrush, and was named Alder Gulch forthwith. After lunch one of the men, William Fairweather, walked over to the side hill to watch the horses, and there found the rim-rock standing above the gravel. He began to dig with his belt-knife, and soon saw upon its point a flake of gold. Then he dug deeper, filled his pan, washed it out under the eager eyes of his brother Argonauts, and found \$1.75 in golden grains! It was the reward of five hundred miles of patient prospecting. What had seemed a disastrous failure became a glorious victory, and the fortunate explorers slept that night surrounded by beaches of gravel loaded with the precious mineral. They staked their claims, and named the district Fairweather, in honor of the man who first panned gold in Alder Gulch, whence forty millions of dollars have since been coined. The news reached Bannack, fifty miles distant, and a stampede began. Everybody who could get away came, seizing a horse, a few blankets and little provision; while many a man too poor for that tramped over the mountains afoot. It was a race all the way, and when the main body would stop for the night, a few men would steal away and travel into the new El Dorado before morning in order to be ahead in selecting a claim. Thus it happened that before the first two weeks of this June, of 1863 were gone, the boulders of the new gulch were ringing to the blows of three hundred picks, and the pretty rivulet was feeding half as many rockers. But the news traveled further—and, in truth, fared worse—than Grasshopper Creek. Emigrants to Oregon turned aside through the Deer Lodge Valley; a party came up the river from Minnesota, another great company known as the "Fisk Outfit" marched across from the east under government escort; and many drove in from Utah and California. All roads led to Alder Gulch. A town was built just off the bar, a long, straggling street of log huts, and the hillsides were dotted with cabins and dug-outs. It was called Verona, after Jeff. Davis' wife; and after the miners, poured in traders, whiskey-sellers, desperadoes, gamblers, thieves and prostitutes, and the crowd doubled and multiplied itself until ten thousand persons eddied about the places in a feverish haste for wealth. No one had time to build houses then. Those who had covered wagons to live in were aristocratic. The majority were content with wickjups of alder boughs or caves in the hillside. They were thoughtless of comfort, of health, of the future. Here was gold? Gold in the mud that clogged their boots, Gold in the dust that blew into their eyes, Gold beneath every pebble that glistened under the summer sun. For seventeen miles the bed of the river concealed a broad, gray streak under a blanket of boulders and soil, and a thousand claims were taken up. The weather during the first two years was favorable to the busy gold-diggers, and there were slight interruptions to this realization of a miner's dream. The shovel and pick were an Aladdin's lamp and ring that called boundless wealth from the vaults of Alder Gulch. "Verona" was soon changed to Virginia City, but no post-office was established until late in 1864, the mail being brought up from Corinne previous to that by the Express company—Wells-Fargo, of course—each letter or newspaper costing about one dollar. There were at that time stage-lines to Salt Lake and Bannack, and wagon roads were gradually becoming worn between Virginia City and the outlying mining camps that explorers were incessantly forming.

With the starting of the coaches, and the passage of treasure out in the pockets of passengers, began the reign of terror which for months made Montana a scene of outlawry, and resulted in the administration of the Vigilantes. The country was filled with desperadoes from California and outlaws from the East who revelled in murder and rapine. Crime was rampant; iniquity organized; no man's life was safe for a moment. Men were shot not alone for money, nor in the heat of quarrels; not alone in a spirit of revenge which followed and assassinated them in secret; but in broad daylight and surrounded by their friends—shot by men who did not even know their names—"Just for luck," the ruffians used to say. It was a common occurrence for a desperado to enter a dance hall with a whoop and a yell, and "turn loose" into the crowd just to see them scatter, or to shoot at the coal-oil lamps in the chandeliers till all the lights were out.

One morning a slight argument as to the merits of the meal arose between two men at breakfast, and was settled by one shooting the other across the table. A young stranger had just entered, and started to run back when the revolver came down to a rest, with the stern command, "Sit down and eat your breakfast, you —, or I'll kill you, too. The boy's appetite was not good, but he obeyed. A guardian was one day correcting his boy for some mischievous pranks, when an unknown man stepped up, and remarking, "I don't like this," presented a derringer. The boy escaped further punishment. Two men would conceive a dislike to one another, and one would send word that he would kill the other on sight. Such a compact existed between Ives and Carhart in '64. Carhart, pistol in hand, passing Ives' cabin, one day, saw the owner standing in front of it with his back turned. Waiting until his antagonist wheeled, the men caught sight of one another simultaneously, and both let drive at the same instant, one missing fire and the other his opponent by an inch! Carhart's second shot flashed right in Ives' face, and just missed again, while Ives' shot struck the ground. Then, both men jumped into cabins, and fired at each other across the street until Ives' revolver was empty, and Carhart had one ball left. As Ives walked off to make his escape, Carhart shot him in the back, the ball passing through and knocking up the dust ahead of him. The man was not at all dead, and cursing Carhart for a coward, ran to get another revolver, but his enemy escaped. Then they made up their quarrels, and lived on a ranch together all winter.

Two or three unprovoked murders and the massacre of a band of friendly Indians, merely for the fun of seeing them jump and run, caused an attempt at arrest and trial of some of the ruffians, but the whole thing was a miserable farce, and encouraged rather than checked crime. The leader of lawlessness at this time was Henry Plummer, a man of pleasing address and gentlemanly manners, making friends wherever he went. It was only when under the influence of liquor or anger that his demoniac passions appeared, and he became the terror of the neighborhood. Beginning his career as a citizen of Nevada, California, and becoming the sheriff there, his first murder was of a German named Vedder, whose wife Plummer had seduced. Hearing Vedder's footsteps approaching the house on one occasion, he ordered him to leave, which Vedder naturally declined to do under the circumstances—and died right there. For this Plummer was sent to the penitentiary for ten years, but was soon pardoned out. Then he went back to Nevada, and the next we hear of him was on the occasion of his beating a man on the head with his pistol, in a house of ill-fame, so that the man died soon after. No arrest being made for this, Plummer went over to Washoe and joined a band of highway robbers, who in the West are always called road agents. Attempting to rob a bullion express, his gun was at fault, and the driver lashed his horses into a speed that carried him out of reach before he could shoot again. For this he was tried, and escaped on technical grounds. Returning to Nevada City, he very soon got into another brothel quarrel, and shot a man dead, for which he was locked up, but walked out with a revolver in each hand, supplied to him through bribery. Next he helped a murderer to break jail, and, stealing horses, the two fled to Oregon, where they killed the owner of a dancing saloon, and then "went upon the road," for the purpose of baffling pursuit, sending word to the California newspapers that they had been hanged at Walla Walla. His comrade, seducing a man's wife in one of the villages of Oregon, met death at the hands of the husband; while Plummer started for the Missouri, intending to go to the States. On his way the news of the fabulous riches of Montana reached him, and joining the ferocious set of villains that followed the crowd thither, Plummer diverged to Bannack, killing a man at Orofino on the way. A former partner of Plummer's was Jack Cleveland, but the men had quarreled about a young woman, and were only waiting an excuse to fight. One day Cleveland entered a saloon where Plummer was, and got into a dispute with a stranger. Plummer instantly took sides against his former partner, and settled the debate by shooting him several times. Most of the persons in the room discovered that they had errands outside, but a man who was being shaved sat quietly, and the barber never ceased. One can get used to almost anything. Cleveland was not quite dead, but no one dared go near him, except a powerful miner named Hank Crawford, who comforted his dying moments. Coming out he met Plummer, and the two men looking at one another knew that a deadly enmity existed from that moment. At the mock trial of Plummer, where he was honorably acquitted, on account of Cleveland's threats, Crawford was sheriff. This increased Plummer's hatred, and it was only a short time until a shooting affray occurred, wherein Plummer's right arm was disabled, and his marvelous skill and quickness with the revolver ruined. However, he learned to shoot very well with his left hand.

Plummer was Sheriff of Bannack, and afterward of Virginia City, securing his election by a very potent method of "bull-dozing," and using his official character as a cloak for his misdeeds. He gathered about him a choice company of miscreants, and they made a business of stopping and robbing the stages, shooting the occupants if they offered the least resistance or were likely to prove troublesome afterward. Their arms were a double-barreled shot-gun, loaded with buck-shot, and two revolvers, and their method was to surprise the stage in some canyon, order every passenger to hold up his hands by a formula garnished with oaths, and then one of the robbers would search the pockets and disarm the vic-

tims, while the rest held loaded pistols at their heads. Finally they began to murder miners in their cabins, shoot them on their claims, stab them in the dark, for the chance money that might be in their pockets. No one was safe for an instant. It was not known who was in league with the road agents and who was innocent. A word of threat against them, or a movement toward investigation, only invited assassination. Law was null, justice was powerless. The revolver was the arbiter of all disputes. Something must be done.

That which aroused the community to this necessity at last was a rapid series of circumstances, beginning with a cold-blooded murder near Virginia City by George Ives, a miner, who had not always been a criminal, but had lately devoted his whole strength to robbery and shooting. As soon as Ives' hiding-place was known, a party of men surrounded it in the gray dawn of the morning, and at the muzzle of the rifle took Ives from the rest and carried him to town. He was tried before a jury, defended by lawyers, hung in the moonlight from the end of a pole.

The turbulence and illy-restrained resistance of the mob at this execution, and some terrible outrages, involving the massacre of whole companies of men, roused honest citizens to form themselves into a secret society for punishment. The idea was not an original one. Similar organizations for the preservation of law and order, whose tribunals were presided over by Judge Lynch, had purged California of lawlessness, and from them the Committee of Safety in Virginia City borrowed the name "Vigilantes."

The Vigilantes were made up of all classes of citizens—merchants, miners and professional men. Everybody who possessed any activity or had suffered any grievance were counted among these retributors. They had signs—a code of telegraphic signals—passwords and vouchers as to each other's faithfulness. The whole order-loving community recognized the necessity of their terrible vengeance, and supported them in sympathy if not in deed. In general the members of the committee were not known, and details, chosen by the general body, were assigned to the making of certain arrests and conducting the inevitable execution in as quiet and disguised a manner as possible. The effort usually was to hang their captive before he suspected that he was a prisoner, allowing no time for any plan of rescue or escape to mature. If their justice had the terror and swift surprise of a lightning-stroke, their work was guided by fair judgment and restraint on the whole; and when one thinks how many lives were at their mercy, and richly deserving their punishment, and considers how few comparatively were sacrificed, he will believe that more moderation than could be expected characterized their proceedings.

When the hand of the Vigilantes began to be felt in Virginia City, the desperadoes were alarmed. Here was a determined check to their lawlessness, against which their fury was wasted. They fled, and news came of the plague of their presence in other camps. The Vigilantes were not thus to be foiled, and "scouts" of determined men started in all directions after the miscreants. An armed police patrolled the territory, and no mining camp or isolated ranch or mountain cabin was obscure enough to hide these wolves of society. They suspected every man to be a Vigilante, were always prepared, and often were shot dead at last in defending themselves. But, if possible, the pursuers captured and hung them—hung them from limbs of trees, all seizing the rope together and running the condemned men twice their height off the ground; standing them on barrels and kicking the barrels out from under them the instant the noose was adjusted; balancing a plank over a stone and playing a short game of see-saw, with a road agent for counter-poise; suspending them four and five at a time from the rafters of new cabins, the gate-posts of corrals and the wheels of huge freight wagons; standing them on the tail-board of a wagon and driving out from under; seating them behind a Vigilante on horseback and putting spurs to the pony, who sprang away with but one rider; holding them high in their arms and letting them drop as far as the hemp would allow. Such were some of the methods of hanging, but the same irrevocable fate resulted from all.

Sometimes the ruffians would tremble, and plead and threaten in crazed and incoherent despair; prayer and menace alike unheeded by their stern captors. But ordinarily they died as they had lived, reckless of present or future, and profaning every sentiment which men deem worthy of respect. "Launch your — old boat; it's only a mud-scow anyway," ordered one as he stood on the shore of eternity. "Gentlemen, I'm green at this business, never having been hung before. Shall I jump off or slide off?" Being told to jump he leaped into the air, as one steps from his carriage after a morning ride.

The road agents rarely buried their murdered victims; the Vigilantes usually left the malefactors hanging where they put them, allowing friends to bury them where they pleased. Usually quiet and seriousness attended all executions. Spectators were always many, and sympathizers not a few; but a guard of Vigilantes stood about the gallows with cocked revolvers, and a movement in the crowd meant instant death. Once an outsider pressed against one of the guard, at the same time putting his hand in the bosom of his shirt. "Take away your hand, please," remarked the Vigilante, pleasantly, "I want to shoot just through that middle button." The hand came down, and the man kept his distance very carefully.

On one occasion, however, the hangmen were enraged beyond control. They went to the cabin of a Mexican named

Joe Pizantbia, known and feared everywhere as the "The Greaser." His crimes were numberless and bloody. Concealing himself in his hut, he shot the two men who first entered the door, killing one—a very popular citizen—instantly. The Vigilantes retreated. They could see no mark, and were sure of death if they approached. A mountain howitzer was not far away, and while some guarded, the rest brought the canon, and with shells and round shot soon demolished the building—no reply coming from the concealed foe all this time. Two men ventured near, and at last inside the house. From under the ruins of the chimney, knocked to pieces by a cannon ball, peered the Greaser's boots and by these they pulled him out. He was fatally hurt, but his six shooter was by his side, and as soon as he was free from the debris of masonry he reached for it. It was his last move. The man whom he had wounded at the door sat there waiting for him, and the Greaser's body was filled with bullets before his head had been dragged out of the hole. It was like killing a snake, and it was little better than a snake they were killing. But this was not retribution enough. They hung the body up, drawing all together on the rope as though the soul was still in the mangled, inanimate form and could appreciate its agony, and fired hundreds of bullets into the riddled corpse, swaying there so dreadfully. Then these were madmen cut it down, and setting a fire the ruined cabin cast the body on the blaze with savage glee and loud laughter at inhuman wit, as they joked about his fate. The pyre and body were consumed together. The smoke of the dreadful revenge was changed to azure mist in the purity of the upper air, and, sun-gilded, like the wreath curling from your own loved hearth. The avengers washed the blood from their hands in a limpid brook, which strove for miles to free itself of this stain cruelly imposed upon it. The sun sank gloriously behind the purple mountains that seemed to blush at the memory of the sanguine sight they had looked upon. Darkness mercifully threw its mantle over the blood stained valley, seeking to hide forever the scene the day had witnessed, and soften men's hearts with its sweet influence. But the end was not yet. The morning sun cast his first glances on the last scene in this awful tragedy; and the worst, for it saw women washing the dead man's ashes in the pans from which to-morrow they would smilingly offer draughts of milk or crisp and snowy biscuits, to save the gold he might have in his pockets.

Drop the curtain. The incredible drama is ended.

Just how many persons the Vigilance Committee at Virginia city and neighborhood found it necessary to put to death I do not know. There were several scores, and the rest of the villains fled. When Slade was hung the last support of outlawry gave way, and the reign of terror was over. The Vigilantes slowly disappeared from view, but never disorganized, and every year since, even to the present week, has witnessed the assertion of their determined power in the form of secret warning to bad men whom the law would not or could not reach, which warnings, if not heeded, were followed by sudden and merciless administration of justice—justice, not in the technical construction of statutes; nor, on the other hand, as a name to hide malicious vengeance, but in fact, and as a protection to a widely-scattered and weak population, for whom theegis of government and law affords utterly inadequate shelter from the assassin and thief.

ERNEST INGERSOLL.

## OUR WASHINGTON LETTER.

THE EXTRA SESSION OF CONGRESS—PENDING MEASURES FOR THE PRESERVATION OF GAME AND FISH—THE GREAT FALLS FISHING CLUB—PROTECTION OF GAME IN VIRGINIA—RUFFED GROUSE SHOOTING, ETC., ETC.

[FROM OUR OWN CORRESPONDENT.]

WASHINGTON, D. C., Oct. 6, 1877.

As the time approaches for the meeting of the extra session of Congress, Washington begins to have a more lively appearance, but, as the columns of FOREST AND STREAM are not given to politics, I do not propose to say anything about the work of the session or the anticipated wrangling over passing events. These beautiful autumn days bring too much pleasure to the sportsman's heart to have him waste time in studying useless political schemes. The object of this journal is to encourage health-giving out-door sports and exercises, instead of devoting valuable space to praising or condemning politicians and their measures. There are, however, two or three matters stowed away in the pigeon-hole in the capitol building in which sportsmen are interested. I refer to the bill to prevent the useless slaughter of buffaloes within the territories of the United States; another for the preservation of game; for the protection of birds, and in relation to dogs in the District of Columbia; petitions from the Legislatures of Maryland and Virginia favoring an appropriation for the erection of a fishway at the Great Falls of the Potomac; resolution of the Senate instructing the Committee on Commerce of that body to inquire into the extent and condition of the salmon fisheries on the Columbia River in Oregon, and Washington Territory, and to report such measure as may be expedient and proper for the regulation of such fisheries and the artificial hatching of salmon in that river. These, with various other measures of a kindred nature which have from time to time been brought to the attention of Congress, were referred to in detail in my previous letters, but I am sorry that I have not been able to note the passage of a single act to carry any

of these propositions into effect. As the coming session will be a long one, there will be plenty of time to consider these matters, and it is to be hoped that persons interested in the passage of good and wholesome laws, having in view the multiplication of fish, protection of game in the Territories and District of Columbia, over which the National Legislature has supreme control, will urge upon Congress the necessity for such laws.

### THE GREAT FALLS FISHING CLUB,

an organization of gentlemen formed for the purpose of enjoying the bass fishing of the Upper Potomac, having plenty of boats and ample facilities for the sport, have had poor success this season, although it numbers among its members some of the most expert anglers of this vicinity. One drawback has been the muddy condition of the river which has prevailed during a greater part of the summer. Mr. Oppenheimer, one of the oldest members of the club, who has probably taken more bass during the past ten years than any other angler of this district, in a recent conversation with your correspondent, expressed the opinion that the bass bite slowly now on account of the great abundance of minnows in the river, upon which they feed, and therefore are not tempted by the sight of a live minnow on a hook. The largest fish taken by him this season was with a crawfish bait, but there is great difficulty in obtaining bait of this character. This gentleman also declares that experience has taught him that bass feed extensively on moonlight nights, and are not apt to bite ravenously upon the days succeeding such nights. At the Point of Rocks, one of the most desirable fishing places on the river, he only captured three during one day, and he attributes his poor success to the bright moonlight night which preceded the day's fishing. On another occasion, in company with Mr. John Hancock, also an experienced angler, he fished at a less desirable point during a cloudy day succeeding a dark night, and the two captured seventeen bass, some of them weighing three and a half pounds. The club now has its headquarters at the seven locks, about a mile above Cabin John Bridge, and eight miles above Georgetown. Their favorite fishing place is at the foot of what is known as Stubblefield Falls, and in the waters for a mile below. Within the past ten days the bass began to bite more lively, and our anglers were anticipating fine sport this month; but the very heavy rain of Thursday last has caused a freshet in the Potomac, and there is no prospect of any fishing for two or three weeks yet.

### GAME PROTECTION IN VIRGINIA.

During the approaching Virginia State Fair, which opens at Richmond on Tuesday, Oct. 30, a convention will be held in that city for the purpose of securing concert of action throughout the State toward the enforcement of laws for the protection of fish and game. I notice the Alexandria Gazette recently published the new game law, prefaced by the statement that information had been received from numerous correspondents in different sections of the State, and from several in the counties adjacent to that city, that, either from ignorance or a bold contempt for the authority of the State, it was a dead letter and its provisions were utterly disregarded, and that in consequence thereof game of all sorts in Virginia will soon be classed among the things that were. The Fish and Game Protective Association has been in existence about one year only, and, through its efforts, wholesome game laws were passed by the Legislature at the last session. It is to be hoped that the approaching convention will arouse an interest in these laws throughout the State, and adopt such measures as will secure their prompt enforcement. In an address issued by the association to the people of Virginia, they first speak of the public mind having become quiet through the restoration of good local government to the several States of the South; the universal desire throughout the Old Dominion to get the State in a shape to be attractive to other people as well as valuable to her own citizens, and say:

"The space of a single generation, or century in fact, is a trifling element in the life of a people; yet we, in Virginia, but three hundred years old as a community, have dealt with the bounties of nature as if a posterity were wholly denied to us. Our timber has been wasted in the most reckless manner, and no care taken to preserve our oysters, fish and game. As to fish, ex-Governor Seymour, of New York, was not far wrong when he said: 'There is more nutritious food in an acre of water well stocked with fish than in the best wheat-growing farm in the State of New York.' And as to game, aside from the pleasure of hunting, it is impossible to estimate fully its value in the destruction of the insect enemies to our cultivated crops."

The people are urged to form game protective associations in their respective counties for the purpose of aiding in the enforcement of the laws, as the work must be done by associated action to be effective. The association does not presume that the laws now in force for the preservation and protection of fish and game are perfect; nor can they be made so without an interchange of opinion representing all portions of the State. They express the hope that the creation of associations working together will go far toward an arrangement of these laws on a basis that will insure the greatest good to the greatest number; and in conclusion say:

"When we consider, aside from the reasons set forth in the foregoing address, the additional attraction to immigrants, presented by woods well stocked with game and streams with fish, we at once see how worthy the objects herein exhibited are of the very best efforts we are able to put forth to compass them."

As many sportsmen of this city, Baltimore and Philadelphia do their fall shooting in Virginia, it will be well for them to remember that partridges cannot be shot from and after the 15th of October as heretofore. The close season under the

new law does not expire until the first of November. It is made unlawful to kill, capture, offer for sale, or buy, any partridge (*Ortyx virginianus*) between the first day of February and the first day of November, under a penalty of \$10 for each offence, the offender to be imprisoned until the fine is paid, providing the term of imprisonment does not exceed a period of thirty days. The close season for ruffed grouse (*Bonasa umbellus*) expires on the first of August, and they can be killed from that time until the first of February. For woodcock (*Philohela minor*) it expires on the first day of July. Water-fowl cannot be killed between the first day of April and the first day of September, except the summer duck (*Aiz sponsa*) and sora (*Porzana carolina*). Wild turkeys (*Melagris gallopavo*) cannot be killed between the first day of February and 15th of October. The law also forbids any one killing or capturing deer within the State between the 15th day of December and 15th day of August.

In Alexandria a game protective association has recently been formed and is now doing good work. One of the papers of that place in speaking of the association says:

"The number of pot-hunters from Washington, who invade the fields and marshes of this county, have made the organization of this society necessary. It proposes to see that the game laws are strictly enforced."

### PHASANT OR RUFFED GROUSE SHOOTING

in Virginia frequently affords good sport, as they are quite plentiful in some portions of the State. Being exclusively a woodland bird it finds many localities in that State congenial to its habits. As an article of food it cannot be surpassed by any other bird of this section, and just at this time they are in excellent condition. Under the new game law above noted the close season expired on the 1st of August, though they have not yet been hunted to any extent. Like many other game birds ruffed grouse are known by different names in various districts where they are found. In the New England States it is always called a "partridge," while in this section it is known as "pheasant." Along some portions of the Alleghany Mountains where it is plentiful the latter appellation prevails. I think it is found to a limited extent only in the south and west. It is a constant resident of the places which it frequents, always seeking the interior of forests and being exceedingly fond of the rocky sides of hills and mountains in many cases inaccessible to the sportsman. It is said that the bird sometimes frequents low lands, but I have very seldom noticed them in such places. Late in the fall, after cold weather had been experienced, I have found them upon hillsides with a southern exposure, especially when thickly covered with trees and bushes. They evidently seek such places for winter quarters, as the cold blasts of that season cannot reach them there, and it is in such localities that they often build their nests and breed. The flight of the pheasant when disturbed is very rapid, and it requires an expert marksman to bring them down. It is not often that a shot can be had at them in the open, and the dense undergrowth of their favorite haunts frequently obscures them from view after they have taken wing, the whirring sound made by the bird in its flight being the only knowledge the sportsman has of its presence. They fly somewhat similar to our partridge by a continued beating of the wings, and then sail along balancing the body in the air. The loud whirring sound produced by the ruffed grouse, partridge and some other kindred birds, when they arise, is only heard when they are frightened and forced to fly, but is never made when the birds move of their own accord from one place to another, as they can take wing on such occasions as gently and quietly as any other member of the feathered tribe. The sportsman always has his best chance to drop the bird when he first puts it up. Though it flies but a few hundred yards before alighting, when forced to take wing the second time it flies more rapidly and higher, besides the bird has a habit of hiding, and I believe it only takes wing when it can find no convenient place to hide, as I have marked well the spot where the bird alighted but failed to put it up the second time after the most strenuous efforts. In this section the female makes her nest about the latter part of April or first of May, always on the ground by the side of an old log or at the root of a bush, and in this she deposits from six to twelve eggs. Like our partridge the young birds are able to run about almost immediately after leaving the shell, and when a week old they can fly a short distance. I have heard that the nest of the ruffed grouse or pheasant is frequently raided by crows during the absence of the old bird, and all the eggs eaten. No doubt it is the case, as they are always on the lookout for such dainties. Foxes, weasels and hawks are all enemies to the bird and oftentimes destroy the mother and brood.

The "drumming" of the ruffed grouse is a subject which has elicited a good deal of discussion among ornithologists, and I believe the question is yet unsettled as to how the bird produces this sound. Audubon states that it "beats its sides with its wings in the manner of the domestic cock, but more loudly and with such rapidity of motion after a few of the first strokes as to cause a tremor in the air, not unlike the rumbling of distant thunder." Wilson, in his American Ornithology, substantially corroborates the account of Audubon, but does not say the bird strikes its body with its wings, though he probably means to convey that impression. Nuttall's description is similar to that of Audubon, and he distinctly states that the bird "beats his sides with his wings with such accelerating motion after the first few strokes as to cause the tremor described which may be heard reverberating in a still morning to the distance of from a quarter to a half a mile." These statements were the accepted authority upon this subject until

within a few years past, and it is now claimed by several writers that the noise is produced, not by the wings striking the body, but by their rapid motion just as those of the humming bird when hovering over a flower. Others argue that the noise is caused by the backs or exterior sides of the wings striking each other as they are forcibly raised over the back of the bird. I have never been fortunate enough to observe the movements of the bird when so engaged sufficiently to say which of the above theories is correct. The drumming, which beyond a doubt is the love call of the male, often leads to his destruction, as it enables those who have no conscientious scruples against killing birds during the breeding season to mark well their location, and often kill them. It is during this season that the males become so pugnacious, and often have severe encounters caused by their jealousy.

The recent disastrous fire at the Patent Office building, which destroyed so many valuable models exhibited there as a monument to the inventive skill of the American people, did not reach those relative to fire-arms, gunpowder, fishing implements, etc., which fortunately were arranged in the East Hall, which was saved from the flames. There are great numbers of models pertaining to fire-arms, ordnance, etc., which form an interesting exhibition, and their destruction would have been an irreparable loss. R. F. B.

OUR LONDON LETTER.

LONDON, ENGLAND, Sept. 12, 1877.

GRIM old London, with its fogs and smoke, is deserted by the beau monde. The main streets and thoroughfares wear a tame, lifeless aspect; the Park makes scarcely an effort at style and ton—in short, "the season" is over. And where has all this gay life disappeared to? The numberless country seats have received the greater portion by far, while numbers of rich families, without this luxury, have, for the sake of fashion, sought the continent, there to sojourn for the dull London months, and to return again at the approach of spring. The titled gentry and Honorable M. P's. are at present engaged in waging indiscriminate war upon the grouse and partridges o'er woodland and lea, and the reports incoming from the different game counties indicate good sport and fair shooting. Perhaps a short review of out-door sports in England, culled from the columns of The Field, may be of interest to the patrons of FOREST AND STREAM three thousand miles away. The Field is the best of London sporting chronicles, and is not devoted to the turf only, but yields some space to almost every branch of manly exercise. "Bell's Life" is authority on matters pertaining solely to the turf, and wastes little space on minor matters.

Glancing over a copy of the Field, the last issued, Sept. 8, we notice few items of interest to the American reader. Going back a week, we find much readable matter, and a more attractive sheet than the present issue.

The first thing that strikes the eye is a short article on Falconry, descriptive of a "stud of hawks" now on exhibition at Alexandra Palace. The revival of falconry in England and the placing of the sport upon a secure footing, seems to be taking a definite shape. Efforts have been made in years past to this end, and in 1871 an attempt was made to establish a "Central School of Falconry." This plan has of late been re-agitated, and the sporting journals are doing all they can to aid in the revival of this delightful, but till lately, obsolete, sport. We append a short account of the present exhibition clipped from the Field of Sept. 1:—

"The recollection of the efforts then made seems now to have been revived, for at the Alexandra Palace at the present time there is on view as fine a stud of hawks as one could wish to see. The stud consists of two Norwegian Jerfalcous, four Norwegian goshawks, three French goshawks, two lanners, sixteen peregrines (seven young and nine old birds), three hobbies, three sparrow-hawks, and ten merlins, besides nine cormorants trained for fishing. The quarters assigned to them in the grounds of the Palace are not only very picturesque, but are very fairly suited to their requirements; and when it is stated that they are under the care of the experienced Scotch falconer, John Barr, it will be understood that they are properly looked after. The owner, a well-known amateur falconer, in allowing the birds to be "on view" for some weeks, has, we believe, made it a condition of their loan to the Palace management that there shall be no attempt at exhibiting falconry, strictly so termed, within the Palace grounds. He has consented, however, to their being publicly "down to the lure"—a very pretty sight, to which we shall allude anon, in which the marvellous quickness and power of wing of these noble birds are thoroughly displayed. To those who are at all curious to see trained hawks, and examine and compare the various species which are employed for taking different 'quarry,' a visit to this collection will prove most instructive.

"Leaving the terrace and walking down to the Japanese Village, a group of picturesque wooden buildings and verandas in the Japanese style, the visitor passes through a wicket gate, and straightway finds himself in view of the birds, the majority of which are on their blocks upon a sloping grass bank, enjoying, without their hoods, the afternoon sun. The larger birds, as the peregrines, lanners, and goshawks, are on wooden blocks, to which they are secured by a leash through their jesses (the short leather straps which are fastened to their legs); but the smaller kinds, as merlins, hobbies and sparrowhawks, are perched upon layered flower pots, which answer the same purpose and are much more portable than the heavier blocks. Some are dozing on the perch, others are disporting themselves on the cool grass at the full length of their tether, or 'tiring,' it may be, on a pigeon's wing; while in the background, under the shade of the trees, sit nine cormorants, grim and weird-like as we have seen them on the rocks at sea, watching intently with their keen and cruel eye every movement of the approaching visitor. The coup d'oeil presented by this group of fifty odd birds, posed in every conceivable attitude, and clothed in various shades of soft gray and brown plumage, is picturesque in the extreme, and even those who are not ornithologists cannot fail to admire the sight.

"Among the peregrines the visitor will notice two Irish birds, others from Lillworth on the Dorsetshire coast, and the rest from Falconswaerd in North Brabant, a locality long celebrated in the annals of falconry for its hawks and native falconers. A noteworthy bird is 'Lun-

press," a magnificent old peregrine, whose brilliant performances at the lure before many thousands of people in the French capital, in 1875, formed a frequent topic in the newspapers at that time. Her owner considers that she is almost, if not quite, the finest and a fastest peregrine ever known in modern times.

"The 'quarry' down at which these peregrine may be partridges, wild ducks, plovers, and rooks, and when opportunity serves, and the hawks have been properly entered, a good fight may be had at a heron. Partridges, says an enthusiastic modern falconer, are the modern game-hawker's principal quarry, and are down at in the same manner as grouse. They have, however, an awkward habit of taking refuge in hedges, banks, or the slightest possible covert, and very cleverly too, so that it is most desirable to meet with them on open ground. Out-door whereon stone walls take the place of hedges in these days of inclosures, is therefore not to be despised; but for English partridge hawking there is no place like the glorious arable downs of Berkshire and Wilts."

Turning again to the last edition of the paper we see much space devoted to angling. The devotees of the rod are having grand salmon fishing in the north; fancy killing a 36 pound fish with a rod! The unusually severe weather in the north of Scotland is putting a damper upon the ardor of many of the gentlemen, however, and they are returning disgusted. It is nearly a fortnight ago that the snow covered the Grampian hills, and this is very unusual, as the fleecy mantle holds off generally until the middle or later October. Great complaint is heard on all sides of the scarcity of partridges. The season opened on the 1st inst., but only moderate bags have as yet been made. This is owing to two things: they say the continuous wet weather of the spring and summer has killed innumerable quantities, and then again the harvesting in England is so late this year that much of the corn is still standing, thus preventing the sportsman from working out many otherwise fine stubbles. But what do the English call "moderate bags?" 130 grouse and two snipe! A fair week's shooting is thus recorded, 1,233 grouse and nine snipe. Grouse-shooting opened on the 1st ult. and pheasant shooting is yet to be inaugurated on the 1st prox. By the way, en passant, there is, in this connection, something which may be useful for your wealthy readers to know, namely, that in certain shooting localities of Scotland extensive moors with shooting box and everything complete may be hired for the "season"—six weeks or more. You become sole possessor during your tenancy, and the rent in most cases is a mere song. I shall not have an opportunity just at this time, though pressed with numerous invitations, to give you an account of your correspondent's own experience upon the English and Scottish moors, but on my return from the Continent may have something of interest to say about pheasant shooting. Referring again to what was said above about hiring a moor, we may add that Banffshire, Scotland, is an excellent locality for this, as there are many fine moors and the rents are low.

The sporting papers here also fill their columns with reports of archery matches, lawn tennis (a very popular game with the ladies), golf (a game which the writer but imperfectly understands), cards, chess, etc. Besides these, they give pages of cricket matches, turf notes, and other minor matters of which the American reader knows little or nothing about. Lack of space forbids the completion of this letter at present, and, with a sincere hope for the continuance of your present prosperity, I subscribe myself

RAMON.

The Rifle.

THE GILMORE'S GARDEN PRESENTATION.—There has been a great potter made over the money received from the proprietors of Gilmore's Garden by the National Rifle Association as its share of the receipts taken on the night of the presentation of the prizes. The daily papers have sought to turn it to sensational uses, and talk very loudly and very ridiculously about money paid to the American team, failing meantime to give a complete and intelligible account of money matters between the team of the National Rifle Association and the public. So far as Gilmore's Garden went the team did not receive one cent of the money there collected. Small sums, we understand, had been paid to members of the team as part payment of their expenses of practice at Creedmoor; but this was entirely distinct from any question of success or failure. For several years past it has been the practice of the National Rifle Association to hire Gilmore's Garden under the same conditions, and why it should now raise so much indignation on the part of the press it is difficult to understand.

DEARBORN RIFLE CLUB MEETING.—A three days' tournament of the Dearborn Rifle Club of Chicago, at Stony Island near that city, occupying Thursday, Friday and Saturday of last week, gave the Western riflemen an opportunity of showing their skill before the target, and affording gratifying proof of the hold rifle practice is taking in various parts of the country. The programme was a good one, and drew probably as able a concourse of riflemen, shooting under the modern system, as it is possible to gather in the Northwest. The weather was favorable, though doubtless there was liberal grumbling on this point. Besides a good array of local talent, the international match was recalled by the presence of several members of the Imperial British Rifle Team, as well as by the attendance of a member of the American team.

The first contest on the programme was the Inter-State match, open to all teams. Distance, 800, 900 and 1,000 yards. Only three teams entered. Illinois was represented by J. A. Schaffer, George Willard, R. S. Thompson and Walter Burham, all of Chicago. J. W. Roberts was captain of this team. Wisconsin was represented by a team from the Milwaukee Rifle Club, which consisted of J. M. Johnston, captain; David Hill, E. Fielding and J. C. Wells. Michigan was represented by a team from the Jackson Club, consisting of G. H. Wolcott, captain; J. T. Harrington, S. S. Levy and R. J. Haire.

The 800 and 900-yards shooting was not up to the standard of our long-range experts, nor do we think it represents the full skill of the men taking part; but for this poor shooting the gusty character of the wind, which prevailed during the shooting, must be held responsible. At 800 yards the Wisconsin men secured a good lead, but a bad break in the 1,000 yards allowed the home team to carry off the honors of the match, Wisconsin falling in the second place, and Michigan steadily in the rear. The full scores were as follows:

Table with columns for Illinois Team, Wisconsin Team, and Michigan Team, listing names like J.A. Schaffer, George Willard, J.M. Johnston, David Hill, G.H. Wolcott, S.S. Levy, R.S. Thompson, J.K. Miller, and scores for 800, 900, and 1000 yards.

Table with columns for Illinois Team, Wisconsin Team, and Michigan Team, listing names like J.A. Schaffer, George Willard, J.M. Johnston, David Hill, G.H. Wolcott, S.S. Levy, R.S. Thompson, J.K. Miller, and scores for 800, 900, and 1000 yards.

The other match of the day was at 600 yards, individual shooting, two sighting and ten scoring shots, open to members of regular rifle clubs and associations. Two prizes were offered, the first being a silver pitcher, and the second a silver cup. The entries contained several notable names, including Sir Henry Halford, the captain of the British team; J. K. Millner and R. S. Greenhill of the Irish team, and F. Hyde of the American team. These crack shots were, however, defeated, the first prize falling to D. Hill of the Milwaukee team. The wind, which had troubled the shooters so badly on the long ranges, had somewhat subsided, and the scores were correspondingly better. The following are the scores:

Table listing names and scores for the 600-yard match, including D. Hill, E. Fielding, R.S. Thompson, J.K. Miller, George Willard, F. Hyde, A.G. Alford, Sir Henry Halford, John Johnston, and R.L.S. Greenhill.

It being a tie between Fielding, of Milwaukee, and Thompson, of Chicago, for the second prize, they shot off, the former winning by the following score:

Table showing scores for Fielding and Thompson.

The second day of the meeting saw more long-range shooting in the contest for the Dearborn Club Challenge Cup. The wind was steadier and less strong; the sky cloudy, but light good. Four teams were made up for the match. The Dearborn Rifle Club impressed Sir Henry Halford into their ranks, making up what they styled a British-American team. The "Irish contingent," of the Imperial team, united with Frank Hyde in forming an Irish-American team, while the Wisconsin and Michigan teams stood as on the day previous. The result was an easy victory for the Irish-Americans on the following score:

Table with columns for Irish-American Team and British-American Team, listing names like J.K. Millner, Wm. Rigby, R.S. Thompson, and scores.

Table with columns for British-American Team and Wisconsin Team, listing names like R.S. Thompson, O.C. Blackmer, David Hill, and scores.

Table with columns for Wisconsin Team and Michigan Team, listing names like J.M. Johnston, E. Fielding, J.C. Wells, G.H. Wolcott, S.S. Levy, and scores.

Table with columns for Michigan Team, listing names like G.H. Wolcott, S.S. Levy, J.T. Harrington, R.J. Haire, and scores.

The weather was more favorable for the third and closing

day of the matches. The first shooting was at 1,000 yards, a badge costing \$100 being offered for the best individual score...

New York—Glendrake Range, Oct. 5.—The Fifth Division of N. G. S. N. Y. fired its third annual division match over the Glendrake Range to-day.

Table with 4 columns: Team, 200 Yds., 300 Yds., 500 Yds., Totals. Lists scores for various battalions.

MEETING OF THE SIXTH DIVISION.—A very pleasant time was had at the meeting of the Sixth Division Rifle Association at the East Syracuse ranges during last week.

Table with 3 columns: Name, Score, Points. Lists names of participants and their scores in various categories.

The most important match of the meeting was the Sixth Division National Guard match, for teams of nine from each regiment, battalion or separate company of infantry, each troop of cavalry and each battery of artillery in the Sixth Division.

Table with 4 columns: Team, 200 Yds., 300 Yds., 500 Yds., Total. Compares scores for the 40th and 41st Regiments.

The cavalry match, open to teams of five, was won by the Yates Dragons by an easy victory over the separate troop, Twenty-fourth Brigade.

HELVETIA VS. ZETTLER RIFLE CLUB.—Monday, October 1, was a day of great interest among the rifle clubs of New York, as the Helvetia Rifle Club held its annual Schuetzenfest at Schuetzen Park on Union Hill.

Table with 4 columns: Name, Helvetia Score, Zettler Score, Total. Lists individual scores for participants.

The scores are very good, the Helvetias being the winners by eight points, or one-twentieth in average, yet it will be noticed this team scored but a single center, while their opponents scored three.

Table with 4 columns: Name, Score, Points. Lists scores for Creedmoor match participants.

Table with 4 columns: Name, Score, Points. Lists scores for various rifle clubs.

Morsmere, Oct. 5.—A match for a piece of silver plate was shot to-day, the conditions of which were as follows: Distance 500 yards, fifteen shots, 11 inch cartons, counting six.

Table with 4 columns: Name, Score, Points. Lists scores for the Morsmere match.

CONNECTICUT.—New Haven.—The new range of the New Haven Association was formally opened on Thursday of last week. Col. Smith, President of the organization, fired the first shot.

MASSACHUSETTS.—Walnut Hill, Boston, Oct. 6.—The last contest for the Sharps Creedmoor rifle took place at the range to-day, and resulted in Mr. L. Hubbard winning the prize.

WATCHING BULLETS.—A clip from Rochester Sunday Herald in your last issue attracted my notice. I would add my testimony to such fact.

INTER-STATE MATCH.—The Pacific Life speaks out boldly for a modification of the terms of the inter-State military match, which in its opinion is destined to become the great popular rifle match in this country.

The National Rifle Association has not risen to a just appreciation of the importance of this match. The prize itself is a paltry one, and the test of military manhood presented in the conditions are not commensurate with the prize.

There is one thing we regret about this business, and that is that Gen. McComb and his associates do not make a bold stand at Creedmoor for a modification of the terms of this match, at least in one essential particular—a modification that was suggested here before the organization of our team.

THE REMINGTON RIFLE.—We print the following letter at the request of a correspondent:

EDITOR FOREST AND STREAM: Dear Sir—Referring to the extract from Mr. I. Wilfred Webb's letter, which appears in your last issue, I should, perhaps, in justice to Messrs. Remington, have said that the rifle Mr. Webb praises so highly was Remington sporting rifle, 50-cal. shells, with 70 grains of powder.

A new Duryea skirmish match at Creedmoor should be a very interesting affair, if judiciously carried out.

THE CALIFORNIA TEAM.—The California rifle team arrived home at San Francisco, and received a grand ovation at the hands of their fellow guardsmen.

The Adjutant-General of the National Guards, State of Connecticut, has authorized a change in the sights, etc., of the Peabody rifle, similar to that now authorized for the State Remington.

Sir Henry Halford has been elected a life member of the N. R. A.

The directors of the Creedmoor range have, on motion of Col. Gildersleeve, emphatically prohibited any further pigeon matches on the ground.

Dr. Moro Morris, of the Seventh Regiment, is now the official surgeon of the N. R. A.

Game Bag and Gun.

GAME IN SEASON IN OCTOBER.

Table with 4 columns: Game Name, Season, Location, Notes. Lists various game species and their seasons.

"Bay birds" generally, including various species of plover, sandpiper, snipe, curlew, oyster-catcher, surf-bird, phalarope, avocets, etc., coming under the group Limicola or shore birds.

The frequent alteration of game laws makes such confusion that sportsmen are kept quite in the dark as to when shooting on various kinds of game is permitted.

Table with 5 columns: States, Fluted Grouse, Ruffed Grouse, Quail, Woodcock. Lists seasonal hunting periods for different states.

SHOOTING IN SOUTHERN MINNESOTA.

TOWARD the close of the last month, as the time drew on for ducks to wing their northward flight, a party of four gentlemen, according to agreement, met at the picturesque Devil's Lake, Wis., for a brief hunting campaign in Southern Minnesota.

Arriving at the Cliff House, under the overhanging rocks of Devil's Lake, the evening was devoted to the enjoyment of all the creature comforts for which this hotel is noted.

At 3:30 o'clock next morning four sleepy hunters tumbled into their clothes and sat down to one of those breakfasts which tempt the appetites of the guests of the Cliff House.

At 8:30 o'clock next morning four sleepy hunters tumbled into their clothes and sat down to one of those breakfasts which tempt the appetites of the guests of the Cliff House.

Arrived at New Ulm, the party immediately struck across the Minnesota River, and spent a couple of hours in chicken shooting. The sick dog was assigned to Harry and the Vagabond, while the two seniors took the young dog, with many a knowing wink at their own shrewdness.

generally called by the farmers, and The Vagabond were emptying cartridges with a rapidity equalled only by the Turkish fire at Plevna, the elders were trying to find a stick with which to lick some sense into their dog. But enough of this; the result of the afternoon's tramp was only thirty-four chickens, mostly brought down at very long range. The elders discoursed something in this wise:

"That was a mighty pretty shot I made near the corner of that first cornfield, wasn't it, Cowles?"

"Yes; and do you remember the old hen I knocked over going past at such a long range?"

"Oh, yes; that showed skill."

But when The Young Man and The Vagabond came in with the greater number of chickens, the elders struck up a regular chorus about what "luck" those youngsters had. So the latter started a mutual admiration society of their own, and got so excited in bragging about their crack shots that Cowles couldn't stand it.

"Look here," said he, "I've kept count of the chickens you say you've killed by most miraculous shooting, and, according to that tally, you ought to have forty-seven. Now, as you brought in only eighteen, I'd like to know what you've done with the other twenty-nine."

It is always disgusting to have a mathematical man along on a hunting or fishing trip, for he is sure to spoil the best stories told at the camp fire by bringing a lot of confounded figures to bear on the subject. It is not well to be too particular at such times.

That evening the party returned to New Ulm. This town was settled in 1834 by the German Society of Turners, mostly from Cincinnati. The founders, desirous of avoiding church quarrels, tried to exclude all churches. The early deeds contained the condition that the property should never be sold nor leased to any church member; but it was found that these restrictions were impracticable, and they have long since been abandoned. A number of churches of different denominations are firmly established in the town.

In 1862 the town was the site of the well-remembered Indian massacre, in which a large number of settlers were unexpectedly attacked and slaughtered. Among the fearful incidents of the massacre, the inhabitants tell a story of a merchant named Merrick, at the lower Sioux Agency, who was said to be very avaricious. The Indians, believing that he had cheated them, were particularly bitter toward him, and took a striking and horrible revenge upon him. His mouth was cut from ear to ear, his jaws pried open, and he was then choked to death with his own money, gold pieces being thrust down his throat until death relieved him. They said, "Now eat gold; you love it so much—eat all you want; fill yourself with it." It will be remembered that about thirty Indians were hanged for these outrages, and a large number of others punished in other ways.

In the vicinity of New Ulm there are few chickens and no ducks, owing to the long-continued drought. Sloughs which are ordinarily several inches deep all through the summer, were now wholly dried up, no rain having fallen for two months. Finally, by going down the Minnesota River, seven miles below old Fort Ridgely—now abandoned—game was found in abundance. The river bottom was filled with partridges and the prairies were alive with very wild chickens. They had already broken up their coveys and were running in immense flocks, some containing as many as two hundred birds. Earlier in the season, before the coveys were broken up, the shooting would have been unsurpassed anywhere in the world. At the present time, by means of their sentinels, they are able to keep at long range all the time, and only a quick, accurate shot with a long-range gun could get them. And here, all joking aside, the skill shown by Mr. Turrill was exceedingly interesting, his shots being remarkably successful, but apparently so neat and easy that his shooting was an object of admiration to the whole party. Mr. Cowles was an excellent second, while the youngsters had plenty of fun, even if they did miss a good many birds.

The party stopped at Mr. Newton's, who was one of the early settlers, a whole-souled host, a hearty, strong-voiced Methodist, and a very shrewd farmer, with an indescribable faculty for mis-using long words. Indeed he out-Paringtoned Mrs. Parington, until the party laughed till they ached, over interminable stories, which would have been wholly devoid of interest but for his absurd misapplication of words. He owned a span of immense horses which were, if possible, even lazier than himself, and, while driving, his time was divided between singing hymns and prodding up his off horse, "John," into a jog trot. Whatever there was about the farm or buildings lacking or out of repair was accounted for by Newton in one comprehensive word, "Grasshoppers." While some men are in the habit of attributing the misfortunes entailed upon them by their own laziness to "hard luck," he had a much more tangible excuse, and the grasshopper served him as a sort of scapegoat upon which he could lay all his troubles and retain a calm, unruffled mind.

About seven miles north of the Minnesota River at this point is a beautiful sheet of water called Clear Lake, about three miles long by two wide. At one end, where a smaller lake adjoins it, there is a natural duck pass, which in season must be one of the finest spots for shooting water-fowl in Minnesota. Indeed, this lake is a sportsman's paradise, for, in addition to fine shooting, he can have gamy fishing—black bass and pickerel being quite abundant and eager. Here, in spite of the drought and warm weather, which combined to keep the ducks away, the party bagged about three dozen plump mallards without stirring away from one spot, the ducks falling on the narrow isthmus between the two lakes every time.

After a day and a night at Clear Lake, passing the night in a hay mow, the party returned to Mr. Newton's, where Mrs. Newton was awaiting them with an excellent supper, which was heartily appreciated after a hard day's hunt and long ride. Mrs. Newton was a bright, intelligent Swede, with more energy in her little finger than her husband had in his whole body; yet she was very proud of his book learning and conversational powers (such as they were) and probably considered him vastly her superior.

One more day's hunt among the chickens and partridges yielded about one hundred birds, and the party were then reluctantly obliged to turn their faces eastward and leave this splendidly hunting ground before the water-fowl shooting had fairly begun; yet they had learned enough to pay them for their trip, to say nothing of the fun they had had. It is a country swarming with chickens which are seldom shot at, and during the covey season, two such shots as Messrs. Turrill and Cowles, with such an admirable dog Bob as the former owns, could bag two hundred birds without any trouble whatever; while later in the year the duck and goose shooting at Clear Lake will be perfectly fascinating.

As the party of four left the cars on their arrival at Devil's Lake, the Young Man and The Vagabond played their last joke by repre-

thrued out to welcome them back, that the quantities of game which had been shipped back daily during their absence had been the trophies of their guns.

"But didn't Turrill and Cowles kill any birds?" they were asked.

"Oh! yes," replied the Vagabond with a commiserating look, as if he did not wish to be too hard upon the elders; "yes, they did kill some, enough for our own meals. Don't mention it to them, please, for they are naturally sore about it."

It is to be hoped that if Mr. Turrill and Mr. Cowles should chance to read this letter they will appreciate the kindness of the above remark and remember gratefully

THE VAGABOND.

Chicago, Sept. 1.

MASSACHUSETTS, Salem, Oct. 5.—Gunning has been, owing to dry hot weather, rather scarce of late. Some coots have been seen off Emerson's Rocks, Ipswich Bay, the past week, and the first, a cripple, was seen in Salem Harbor last week. Geo. Stone killed eight out of eleven blue-winged in Mill Pond this a. m. Pittman and Brother of Swampscott lately shot twelve black breast plover, with some other birds, on Lyon marshes.

Salem, Oct. 8.—Reports from various parts of Essex County give the gunning as dry in the woods. Coots may now be found almost any day in the Bay. Some winters are around. Reports from the Cape, i. e., Chatham, for the past two weeks have given but scanty returns. Small birds were numerous and are at present, and some large birds came along last Saturday.

Plymouth, Oct. 5.—Coots not very abundant as yet. But few have been killed. Ruffed grouse and quail are abundant, however, and good sport is had.

A STRANGE ACCIDENT.—On Oct. 4 an accident happened Mr. Edulbert Finney that doesn't often occur. He, with Mr. Ansel Bartlett, of Wellingsley, Mass., were off Manomet, coasting each having a boat. While waiting for their game, they saw a fine buck whale playing seaward of them, which finally struck Mr. Finney's dory just forward of amidships, throwing it into the air. When it struck the water, bottom up, Mr. Finney found himself sprawling on the whale's back, gun in hand, where he rode about a minute, when the cetacean made a dive, drawing Mr. F. down with him. On rising he was rescued, after some difficulty, by Mr. Bartlett and a Mr. Holmes, who was an eye-witness of the whole scene. Having Mr. F. safe, they put for the shore, fearing his whaleship might take a notion to repeat his joke on them.

QUEENS COUNTY HOUNDS.—The experimental meet of the hunt took place at Garden City, L. I., Oct. 4, and proved very successful. The first regular meeting was held yesterday, and others are appointed for the Wednesday and Saturday of each week in this month and November.

—General G. E. Spinner, late of U. S. Treasury, has been hunting in the Adirondacks. Notwithstanding his seventy-five years he climbs mountains, walks, camps out, and hunts with all the energy and vigor of youth.

—The woods along the Delaware are teeming with partridges and small game. Deer in that vicinity are more numerous than they have been for several years.

PENNSYLVANIA.—Sharon, Oct. 3.—The best bag on the opening of the grouse season was made by Frank Davis—eight ruffed grouse, three woodcock and one gray squirrel. Great numbers of ruffed grouse were killed here last August.

Corry, Oct. 8.—Grouse and woodcock are abundant in the vicinity.

Port Clinton, Oct. 7.—Teal shooting fine; good bags of woodcock are made.

MARYLAND.—Chincoteague Island, Oct. 6.—Ducks are making their appearance, and there is every promise of a fine season along the favorite resorts of the eastern shore of the State.

VIRGINIA.—White Sulphur Springs, Oct. 6.—The outlook for sport about here this season is most excellent. The mountains afford good turkey, deer and bear shooting; pheasants plenty.

Winchester.—Mr. W. H. Calvert, during the last winter, bought and fed some partridges, which were freed at the approach of warm weather. The other day one of them came back, entered Mr. C.'s window, popped around, and bas-evidently returned to stay in his winter quarters. He is well treated, and seems perfectly at home.

Blackburg, Oct. 3.—On Sunday last a covey of partridges (quail), seven in number flew into an open window of the office of the Va. Agricultural and Mechanical College at this place, and struck the opposite wall. Five were killed, and two appearing unharmed were set at liberty. They were fully grown, but the game law protects them until Nov. 1. Quail are very abundant. There is an extraordinary migration of common gray squirrels, extending along the Alleghenias to about 150 miles, moving from west to east; in some places appearing suddenly in vast numbers, and very destructive to corn fields. They seem to move at night, and do not regard rivers.

Quogue, Va., Oct. 6.—General and Ex-Gov. Dix the other day proved that he was still able to "shoot 'em on the spot," by killing six out of seven teal on the wing at one shot.

NORTH CAROLINA.—Poplar Branch, Oct. 4.—The shooting in this vicinity is now good, and promises to improve until the approach of the coldest weather. Mrs. Caroline Van Slack, whose estate embraces more than 10,000 acres, has accommodation for sportsmen, and they will here find deer, turkeys, snipe, quail, ducks and geese in abundance.

KENTUCKY.—Louisville, Oct. 7.—Col. F. W. Thompson killed ten blue-wing ducks on the river last Thursday. George Woerner was out on Friday, near the "wet woods," and brought back a number of wild pigeons and squirrels. The sudden change during the past week has had the effect of bringing ducks to the vicinity of the falls, and a number of blue-wings and mallards have been shot.

—The Louisville Sunday Argus has a well edited Rod and Gun column.

GOING TO FLORIDA FOR THE WINTER.—Our friend, Maj. Alden, of New Smyrna, Fla., is kind enough to tender to sportsmen the following information, as well as inducements to visit Florida the coming winter. What he says will prove

of service to those desiring to camp out at least possible expense:

EDITOR FOREST AND STREAM: NEW SMYRNA, Fla., Sept. 21, 1877.

I have had several letters from readers of your paper asking me as to the best route to take to this section, and when to camp and how to live at least expense. First, come via C. H. Mallery's line to Jacksonville, via Fernandina; cabin passage from New York to Jacksonville, \$35. Buy lumber to build a home (same size as U. S. A. hospital tent) in Jacksonville, or wait until you get here, then send for what you want. Ten dollars will buy all you will need for house to live in, and cook and servants' room. The roof can be covered with palmetto leaves which make a light and impervious roof and cost nothing but gathering. Buy a camp stove with fixtures. Buy what groceries you may want in Jacksonville, or they may be sent for after arrival here, and can also be brought here at a slight advance of Jacksonville prices. With rod and gun, a good cast net, and flat bottom boat, you can live as well as you may wish for less than four dollars per week. Boat can be bought here. Bring your cast net (six foot English net best), your fishing tackle, etc. I will give to gentleman sportsmen a place to camp on the beach ridge opposite New Smyrna, or if they wish to combine fishing and hunting, I will give them localities where they can get plenty of wood and water without cost at my place, six miles south of New Smyrna, from which point they can get fish and oysters, or deer, bear, turkey, snipe or ducks. Game law is off, with plenty of good shooting now. The steamer Bowler City will be put on the line between here and Jacksonville or Fernandina on or before Nov. 1, 1877, without fail. Arrangements will be made for through tickets from New York. GEO. A. ALDEN.

TEXAS.—The slaughter of buffaloes still continues without abatement; one firm alone, at Fort Concho, has bought and shipped during the past season over one thousand hides.

Henrietta.—Buffalo hunters report deer and antelope plenty fifty miles West of Henrietta.

Ohio—Ashabula, Oct. 6.—Deer are occasionally seen in the country. Partridge plenty, and afford good shooting.

MISSOURI.—Osage, Oct. 4.—Thousands of squirrels are slaughtered all about here and in the vicinity of Gasconade.

ILLINOIS.—Champaign, Oct. 3.—Chicken shooting in this part of the State has been very poor, but quails are very plenty. We anticipate good sport among them after Nov. 1.

MICHIGAN.—Olivet, Oct. 4.—The late drought affected the duck crop, but since the great storm birds have become quite plentiful. Last night the belated traveler on the Marshall Road must have been astounded at the unearthly noises proceeding from Pine Lake. 'Twas ducks, only ducks! Woodcock are abundant; more so than usual. Can it be that the southern migration has set in thus early, that causes this sudden eruption of these birds? Ruffed grouse, hares and turkeys are had by seeking. Quail scattering. The College is in full blast, and the youngsters have furnished up all the old muskets, pot metal shot guns, etc., available, and neglect prayers for ducks.

WISCONSIN.—Hebron, Oct. 6.—Game in this section has been somewhat scarce for the past months, but ducks and snipe begin to come in from the North, and the prospects are brightening. We have an abundant crop of rice, which doubtless, will be very enticing to waterfowl.

CALIFORNIA.—Clear Lake, Sept. 29.—Wild ducks and geese are flocking to the lake, and there is promise of excellent shooting.

Tulare Lake, Sept. 29.—Geese are abundant; the duck shooting poor.

Santa Cruz, Sept. 29.—Ex-Centennial Commissioner Ben. P. Kooser, of the Sentinel, had fine success, while hunting in Napa County the other day. Among the trophies of his chase he exhibits the antlers of a deer weighing 120 pounds.

CANADA.—Quebec, Oct. 7.—Wild geese in large flocks are winging their way overhead toward their winter quarters.

Sarnia, Ontario, Oct. 8.—The majority of our sports are off to the St. Clair Flats after ducks. Reports say that wild fowl are less plentiful there than usual. This is due to the lawless way in which our neighbors across the line behave, they seeming to think a game law of no earthly use but to talk about.

PIGEON MATCHES.

CHAMPAIGN (ILL.) SHOOTING CLUB, Oct. 2.—Conditions of match: Six single and three pairs of pigeons; 25 and 20 yards rise; 80 yards boundary.

Table with 4 columns: Name, Single, Double, Total. Rows include Scott, Britton, Conley.

FOUNTAIN GUN CLUB.—Brooklyn, Oct. 5.—Monthly contest for the champion badge of the club, shot for at seven birds each; 80 yards boundary; handicapped distance; ties shot off at three birds each. The high winds caused the birds to charge at their best, and prevented good marksmanship. Following are the principal scores:

Table with 4 columns: Name, Score. Rows include Madison, C Williams, Atkins, Bogart, Hausen, Byrne, Dr France, McShannon, DeFrance, Crook, O'Connor, Cutts.

MICHIGAN.—Detroit, Oct. 6.—The Detroit Gun Club held their shoot for the State medal Oct. 3. The medal had another narrow escape from becoming the individual property of one of the club, having been won twice in succession by Eldridge. The following is the score; 11 birds each, 30 yards rise, English rules, every-bird to be gathered before it was scored as dead:

Table with 4 columns: Name, Score. Rows include J V D Eldridge, Ed Gilman, George Avery, W C Colburn, J E Long, Goff Stanton.

The New Haven steamers have discontinued for the season their landings at Twenty-third street, E. R. Steamers leave Pier 25 E. R. (Peck Slip), as usual at 3 and 11 p. m., connecting with special trains to points North and East.

Tiffany & Co., Silversmiths, Jewelers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. TIFFANY & CO. are also the agents in America for Messrs. PATEK, PHILIPPE & Co., of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones, General Jewelry, Artistic Bronzes and Pottery, Electro-Plate and Sterling Silverware for Household use, fine Stationery and Bric-a-brac, is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York.

New Advertisements.

Piper Heidsieck

AND PIPER "SEC."



For Sale Everywhere.

JOHN OSBORN, SON & CO.,  
45 Beaver street, New York,  
and  
44 St. Saorament street, Montreal,  
GENERAL AGENTS.

NOTICE is hereby given that Certificate No. 12, for two shares of stock of \$500 each in the Forest and Stream Publishing Company, issued to the undersigned August 2, 1873, have been stolen, and all persons are hereby notified not to negotiate for the same, as application has been made for the re-issue of said certificate.  
Sept 17  
SIMEON A. ATKINSON.

CITY AND COUNTRY PROPERTY bought, sold and exchanged. C. S. PECK, 8 West Twenty-fifth street, New York.  
Sept 27 17

25 Fashionable Cards, no 2 alike, with name loc. post paid. Geo. I. REED & Co., Nassau, N. Y.  
Oct 4 17

REVOLVERS, 7 SHOT, \$2.50 at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

**HOW TO LIVE IN FLORIDA.**  
HOW TO GO, COST OF TRIP, COST TO SETTLE, what to cultivate, how to cultivate it, etc., etc. all sold in each number of Florida News. New York, published at 21 Park Row, New York City. Single copy, 10c. one year \$1. 40 Acres Orange Land for \$50. On line of railroad, country healthy, thickly settled. Address R. HOLLYER, Gen'l Agent, Box 6223, New York.

Wanted.

**WANTED.** Everybody to subscribe to the Southern Poultry Journal. A Handsome & Illustrated Monthly Magazine, devoted to Poultry and General Sporting Matter. Only \$2 per year post paid; sample copies 20 cents. Correspondence solicited for the various departments of the Journal on all subjects of interest relating thereto. Secretaries of Gun and Rifle Clubs are requested to favor us with notes of their movements, etc.

Address E. B. HARTWELL, PUBLISHER, 2011 P. O. Box 69, Louisville, Ky.

**WANTED**—A good second-hand breech-loader—cheap. Address, C. C., P. O. Box 2112, Oct 11 17

**WANTED**—A good 10 or 12-bore Wesley Richards' gun, second-hand—without choke. Apply at office of FOREST AND STREAM, 12101, Oct 11 17

**WANTED**—A mid-range, breech-loading rifle; must be in perfect order and cheap. 35 calibre preferred. Address, E. S. BRADFORD, Webster, Mass., Oct 11 17

**WANTED**—Second-hand long-range breech-loading rifle; must be in good condition and in nice low. Address, stating kind, terms and particulars, P. O. Box 84, Albany, N. Y., Oct 11 17

**FLEY'S SHELLS, WADS AND CAPS** at 125 Nassau street, New York, and 55 Court street, Brooklyn.

**WANTED** a gentleman to join me on a three weeks trip to Iowa. References given and required. Address before Oct. 16, E. C., Box 5651, New York. Oct 11 17

**WANTED**—A second-hand Douglas—side-lever, lock fall—breech loader; best quality. Must be in prime condition and cheap. Address JACK, office FOREST AND STREAM. Oct 11 17

Sportsmen's Goods, Etc.



ESTABLISHED 1896.  
**Steele & Son**  
Jewelers and Silversmiths,  
HARTFORD, CONNECTICUT,

averware, Watches, Jewelry etc., German and English cutlery given to the manufacturers for shooting, boating, etc., and our illustrated catalogue (dozen wood cuts of the case in our line, including the GAME LAWS OF CONNECTICUT, mailed to any address on receipt of 50 cents. Sept 27 17

RUSHTON'S HUNTING & PLEASURE BOATS AND CANOES.

The LIGHTEST sporting boat in the world. Weight, 25 pounds and upward. The smallest size will carry two persons. Cedar slung, oak keel, etc., (do not fold up). CANOES, open or decked weight 35 pounds to 60 lbs. Send stamp for new Illustrated Circular. J. H. RUSHTON, Manufacturer, Canton, St. Lawrence County, N. Y.

Folding Pocket Mosquito Bar.

A most ingenious device for camping purposes. It is very light, easy to carry and can be put up or taken down in half a minute. Pronounced by sports men to be the most complete thing of the kind ever offered to the public. Price only \$1.50. Lawn covered, expressly for Florida travel, \$3.50. Sent post paid on receipt of price. Liberal discount to the trade.

A. A. COWING, Watkins, N. Y.  
W. HOLBERTON, 102 Nassau St., N. Y. Agent.

H. L. LEONARD, BANGOR, MAINE.

Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty

Great reduction in prices. Trout rods, full mounted, \$30, formerly \$50; other rods in proportion. Every rod bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof ferrule," and warranted against imperfections in material and workmanship.

Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancewood. MADE TO ORDER.

I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods. Also manufacturer of Patent Reels for Salmon and Trout fishing. The lightest, strongest, and handsomest Reels ever made.

Full line of FISHING TACKLE always on hand. Send for circular and price list.

187

NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

MADE OF BROWN VELVETEEN.

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$6.50. Also the best brown corduroy pants at \$10 per pair. I make only the one grade, as the oneapeat goods do not turn britis and will not give satisfaction.

Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is The Best Yet. Coat, \$50. For full Suit, \$140. I also make the sleeveless Coat; Vest with sleeves if desired. Rules for measurement and samples sent upon application.

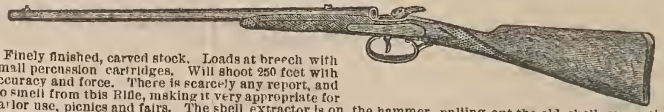
F. L. Sheldon,

RAHWAY, N. J.

For Sale in New York by

H. C. SQUIRES, 1 Cortlandt St., N. Y.,

CREEDMOOR PARLOR RIFLE.



Finely finished, carved stock. Loads at breech with small percussion cartridges. Will shoot 250 feet with accuracy and force. There is scarcely any report, and no smell from this Rifle, making it very appropriate for use for use, picnics and fairs. The shell extractor is on the hammer, pulling out the old shell every time the hammer is raised. Price, \$10; cartridges for rifle \$3 per thousand, or \$1 per box of 250. Iron bell target, with numbers, \$5, sent C. O. D. or on receipt of price. Send for price list of Revolvers, Skates, Novelties and Sporting Goods.

FISH & SIMPSON,

132 NASSAU STREET, NEW YORK.

A VICTORIOUS INVENTION The Eagle Claw.



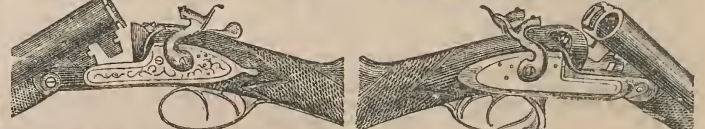
An ingenious device for the purpose of catching all kinds of Animals, Fish and Game. The easy method of setting the Eagle Claw, combined with the simplicity of removing the victim, are among its peculiar advantages. It is immaterial how to place it when set. It may be buried flat in the ground, suspended from the limb of a tree, or, when occasion requires, covered with grass, leaves or other light material without in any way impairing its certain operation. It is adapted for bait of any description, and, when set, no Animal, Fish or Bird that touches the bait can possibly escape. It does not mangle or injure its victims in the slightest degree, nor need they be handled to free them from the trap.

- PRICE LIST:
- No. 1—For fishing and all kinds of small game and animals, sent by mail..... 35 cents.
  - No. 2—For catching Mink, Muskrats, Raccoons, large Game, Fish, &c..... 75 cents.
  - No. 3, or Rocky Mountain Giant, for catching Bears, Wolves, Panthers, &c. Can be easily set by a boy, and will stand a strain of several hundred pounds. Weight, 10 to 15 lbs. \$10. All goods sent, charges paid, to any address on receipt of price. Address

Stent & Co., Gen'l Agents,  
132 Nassau St.,  
NEW YORK.  
P. O. Box 2997.

AGENTS WANTED

JOS. C. GRUBB & CO., 712 Market Street, PHILADELPHIA.



Importers and Agents for the Best Makes of BREECH-LOADING GUNS, RIFLES, & C. of all grades, from the Justly Celebrated Guns of JAMES PURDEY, LONDON, To the Cheapest Class; including WESTLEY RICHARDS, E. M. KELLY & CO., W. & C. SCOTT & SON, P. WEBLEY & Son, W. W. GREENER, also PARKER and REMINGTON'S AMERICAN MADE GUNS. Everything in the Shooting, Trackle and Material Line of the Best and Most Approved Kinds. Prices on application. N. B.—Centennial Medals were awarded to James Purdey, Westley Richards, P. Webley & Son, W. & C. Scott & Son and others.

THE UNITED STATES CARTRIDGE COMPANY, LOWELL, MASS.

Manufacturers of the CENTRAL FIRE, SOLID HEAD, BRASS SHELL, RE-LOADING CARTRIDGE, Used by the Army and Navy of the United States and several Foreign Governments. All kinds of RIM FIRE AMMUNITION. Special attention paid to orders for TARGET PRACTICE CARTRIDGES. Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.

BOYS' SINGLE-BARREL SHOT-GUNS, \$2.50 at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

SHELLS LOADED FOR PARTRIDGE, QUAIL, WOODCOCK and SNIPES, \$4 per hundred, at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

DINGEE SCRIBNER,

Manufacturer of

salmon and Trout Rods, Salmon and Trout Flies Casting Lines, Landing Nets, Gaffs, etc.

Best Greenheart Rods at \$9, \$11 and \$13 each. Waterloo Street, St. Johns, N. B. 1712 6m

The Ludlow Trout Co.

Will this year take from one to two million brook trout eggs (ready for shipment from Nov. 10 to Dec. 20) at lowest prices. Send for price list. Address

B. FREEBURG, SUPERINTENDENT, Aug 23 8m Ludlow, McKean County, Pa.



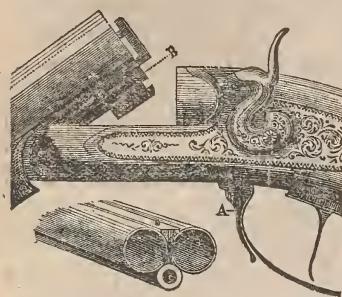




Guns, Rifles, Etc.

W. & C. SCOTT & SONS.

Sportsmen's Goods.



Breech-Loading Guns.

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

PRICES.

- Three barrel, \$75 to \$250. Double barrel shot guns. Damascus barrel, \$50 to \$200. Twist barrel, \$35.

SEND FOR NEW CIRCULAR.

W. H. BAKER & CO., Syracuse, N. Y.

W. W. Greener's CHOKE-BORE GUNS, Tried on Game in America.

Supplied by H. C. Squires, 1 Cortlandt St., NEW YORK.

See the Following Testimonials:

SIR—It is a pleasure for me to inform you of my high appreciation of the 10-lb. Greener breech-loader purchased of you last winter. I consider choke-boring, if skillfully done, as the greatest improvement in fowling-pieces since the introduction of the percussion cap. It gives the maker complete control of the pattern, and greatly increases penetration. To prove this, I will give you the performances of this gun. The 32-inch 12-gauge barrels, charged with 4 1/2 drachms of powder and 1 1/2 oz. No. 6 English chilled shot, give patterns ranging from 25 to 350 pellets in 3 1/2-inch circle at 40 yards. The same charge of powder and 1 1/2 oz. No. 4 American shot gives 160 to 175 pellets, with penetration which kills ducks at 50 to 75 yards like a stroke of lightning. It is a characteristic of the choke-bore to show its greatest superiority in the large sized shot, that I am about to say will perhaps surprise you as much as the performance surprised me. On trial of the 12-gauge 28-inch modified choke-bore barrels, with 3 1/2 drachms of powder and 1 1/2 oz. of shot, I got about the same pattern and spread of shot at 25 yards as with the full choke 10-gauge barrels at 40 yards, with tremendous penetration. This is just the performance required of a gun for thick cover, in which you generally find ruffed grouse, woodcock and quail, these birds being killed, with few exceptions, at from 15 to 25 yards.

COL. JOHN BODINE.

DEAR SIR—The guns arrived all right. We think these last guns you have sent us will place the Greener guns ahead of any other in this country, as guns of other makers don't compare in shooting qualities with them. We unhesitatingly recommend the Greener as far superior to any gun of foreign or domestic manufacture that we have seen. We say this after seeing and using guns of all the most celebrated makers.

CARLISLE, JONES & CO., SELMA, Ala.

The Greener gun presented by Mr. Squires for the best pointer, and awarded to me, is a close, clean, hard hitter, killing its game at very long distances. It is the second Greener that I have owned and they cannot be beaten. I will with them in the trap or in the field.

S. B. DILLEY, LAKE CITY, Minn.

SIR—I have a pair of W. W. Greener's breech-loaders (bought of H. C. Squires, of New York), modified choke-bore. I have had an opportunity to test these weapons on birds heavily feathered, and where great penetration was essential to success. I have repeatedly made long shots, always killing the game clean. At a target both guns made a very even distribution of the shot, with extreme penetration.

SIR—The Greener breech-loader I purchased of you is very fine indeed, and gives great satisfaction.

WARREN, Pa. ROBERT DENNISON.

W. W. GREENER, St. Mary's Works, Birmingham, England.

Sportsman's Depot.

(ESTABLISHED 1836.)

First premium at World's Fair at New York and Centennial Exhibition.



JOH KRIDER,

N. E. Cor. Second and Walnut Sts., Phila. GUNS, RIFLES, PISTOLS,

Fishing Tackle, Rods, Reels, Lines, Hooks, Flies, Leaders, Snoods, Artificial Bait, Fly Books, Etc.

Salmon, Bass and Trout Files Made to Order.

ALSO

"Kriders" Celebrated Center Enamel Split and Gined Bamboo Rods

Birds' Eggs and Birds' Skins in Great Varieties—Taxidermy in all its branches.

Spratt's Patent Dog Biscuits. mar-17

Repairing of all kinds.

E. THOMAS, JR., GUNS, PISTOLS, SPORTING GOODS, 174 South Clark Street, Chicago, Ill.



TRIPLEX.

marked the PREMIER QUALITY

[Extract from FOREST AND STREAM, New York, December 26, 1874, Contributed by one of the Judges of Awards of Guns at the Centennial.]

"This action (The Triplex Lever Grip) combines in the highest degree strength and simplicity, and must rapidly secure the favor of all who test its merits.

COMPENSATING LUMP. Strongly recommended. It is invaluable, and should be ordered on every gun. Costs about \$10 extra. Choke-bore, medium or full. Our guns to be had of the principal dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.

DON'T PASS THIS BY.

STODDARD'S CARTRIDGE-LOADING IMPLEMENT, COMBINING ALL OTHER TOOLS AND FOR ALL SHELLS.

Length, 4 1/2 inches; weight, 10 ounces, nickel-plated. Price, \$6.

Recommended by FOREST AND STREAM AND ROD AND GUN, Boone, Recapper, Will Whitwood, Ira A. Payne, and others. Liberal discount to the trade. Send postal order to

C. J. STODDARD & CO.,

Look box 192, Washington, D. C.

TO SPORTSMEN IN GENERAL!

Headquarters Bohemian Glass Works, 214 PEARL STREET, NEW YORK.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the service of that well-known Sportsman,

IRA A. PAINE,

to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell.

In offering this new ball to the public it will require very little introduction, as in no instance where it has been exhibited has it failed to take the place of all others, and is to-day the only perfect substitute for a bird in use.

The following is from the New York Herald, Sept. 1:

THE BRITISH VISITORS RECREATING AT ELM PARK—A TRIAL AT GLASS BALL SHOOTING.—The visiting riflemen, accompanied by Judge Gildersleeve, Col. John Bodine and Mr. L. M. Ballard, all of the American Team of 1874, arrived at the Park a little before eleven o'clock, and practice shooting was at once commenced. The shooting at glass balls sprung from a steel trap, instead of live pigeons as in Europe, was a novelty for the Englishmen. Mr. Ira Paine, who has invented the "feather balls," furnished them for the occasion as a compliment to Judge Gildersleeve and his friends. This style of balls gave during the afternoon such satisfaction that after the shooting was over the West Side Gun Club held a special meeting to adopt them, ordering 1,000 of them forthwith.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300 or boxes of 500. Send for price list. We intend offering special inducements to the trade.

Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

SPORTSMEN'S CLUBS AND AMATEURS

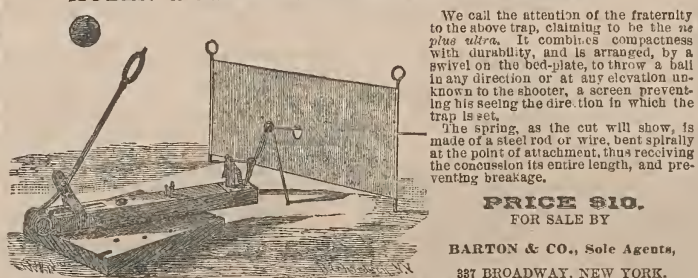
THE PATENT ROUGH BALL—The only ball that will break sure when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 13, 1877.

Geo. E. Hart & Co.,

NEWARK, N. J.

TRADE SUPPLIED.

HUBER & MERWIN'S CHAMPION BALL TRAP.



We call the attention of the fraternity to the above trap, claiming to be the ne plus ultra. It combines compactness with durability, and is arranged, by a swirl on the bed-plate, to throw a ball in any direction or at any elevation unknown to the shooter, a screen preventing his seeing the direction in which the trap is set.

The spring, as the cut will show, is made of a steel rod or wire, bent spirally at the point of attachment, thus receiving the concussion its entire length, and preventing breakage.

PRICE \$10. FOR SALE BY

BARTON & CO., Sole Agents,

337 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP, for durability and perfection of its operation, superior to them all, and take pleasure in recommending the "Champion" to sporting clubs and my friends. (Signed) Aug 9 1y

THE GREEN GUN has the simplest and strongest snap-action made. The proportions and finish, the shooting qualities for penetration and pattern, are not excelled. Can bore to make any pattern ordered, from a cylinder to a full choke.

Muzzle-loaders altered to breech-loaders, with same action as new guns. Barrels bored to shoot close and strong.



Price \$45. Re-boring and repairing breech-loading shot-guns done promptly and in the very best manner. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Aug 30 1y

W. H. HOLABIRD, Manufacturer of Specialties in Clothing FOR SPORTSMEN, Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent by mail, post-paid, \$6.

Holabird's New Game Bag; weight 13 ounces. The most convenient and coolest of any ever offered to Sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2.

Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style.

Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods. jyl 12

THOMSON'S New Style Hunting Boots.



Has all the benefits of Top Boots, and ease and comfort of Laced Shoes. Waterproof to the top. Send address for descriptive card.

THOMSON & SON, P. O. Box 1,016, 301 Broadway, N. Y.

Yachting Suits

U. S. NAVY STANDARD BLUE FLANNEL. Shirts, \$3.50; Pants \$2.50; Caps, \$1. Write for descriptive catalogue. GEO. C. HENNING, Washington City.

Founded July 4, 1838.



Thos. W. Sparks, Shot & Bar Lead MANUFACTURER.

Office 121 Walnut Street, Philadelphia.

Magic Lanterns and Stereopticons.

E. & H. T. ANTHONY & CO., 501 Broadway, N. Y., opposite Metropolitan. Stereoscopes and Views; Graphoscopes, Chromos and Frames; Albums, Photographs of Celebrities, Photographic Transparencies, Convex Glass, Photographic Materials. Awarded First Premium at Vienna and Philadelphia. dec 25

Painting. PAINTING.

EVERY ONE THEIR OWN PAINTER.

50 Per Cent. Saved. We are manufacturing a very fine Pure Ready-mixed Paint, mixed in such a manner that an ordinary stable or farm hand can make as good a job painting as a painter can with paint mixed in the old way. This is because our paint does not set quick, and thus show marks of the brush. We sell lower than materials can be bought in the ordinary way, and pay freight in certain sized orders. Any gentleman wishing to paint up his buildings at small expense had better write, and have sent free our book.

Address 260 Front street, INGERSOLL PAINT WORKS. jef 13

# FOREST AND STREAM

## ROD & GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year. }  
Ten Cents a Copy.

NEW YORK, THURSDAY, OCTOBER 18, 1877.

{ Volume 9.—No. 11.  
{ No. 111 Fulton St., N. Y.

### FAREWELL.

*Selected.*

SUMMER is fading; the broad leaves that grew  
So freshly green when June was young, are falling  
And all the whisper-haunted forest through  
The restless birds in saddened tones are calling  
From rustling hazel copse and tangled dell,  
"Farewe! sweet summer,  
Fragrant, fruity summer,  
Sweet farewell!"

Upon the windy hill, in many a field,  
The honey bees hum slow above the clover,  
Gleaning the latest sweets its bloom may yield;  
And, knowing that their harvest time is over,  
Sing, half a lullaby and half a knell,  
"Farewell, sweet summer,  
Honey-laden summer,  
Sweet farewell!"

The little brook that babbles 'mid the ferns,  
O'er twisted roots and sandy shallows playing,  
Seems fain to linger in its eddied turns,  
And with a plaintive, purring voice is saying,  
Sadder and sweeter than my song can tell,  
"Farewell, sweet summer,  
Warm and dreamy summer,  
Sweet farewell!"

The fitful breeze sweeps down the winding lane  
With gold and crimson leaves before it flying;  
Its gusty laughter has no sign of pain,  
But in the lulls it sinks to gentle sighing,  
And mourns the summer's early broken spell.  
"Farewell, sweet summer,  
R-s-y, blooming summer,  
Sweet farewell!"

So bird, and bee, and brook, and breeze make moan,  
With melancholy song their loss complaining:  
I, too, must join them, as I walk alone  
Among the sights and sounds of summer's waning;  
I, too, have loved the season passing well—  
So, farewell summer,  
Fair, but faded, summer,  
Sweet farewell!

GEORGE ARNOLD.

For Forest and Stream.

### Quail Shooting.

WHEN dying nature, like the dolphin, begins to array herself in her brightest colors, memory plays over by-gone scenes of happy autumn days, and there comes stealing over us an intense and irresistible yearning for the field. Our brute friends feel it too. Old Jack no longer casts a sleepy eye upon us and taps out a lazy welcome with his tail on the stoop as we come out. He sits up in monumental importance, watches us with a deep whine of anxiety, cocks his head on one side and the other, as his glistening eye tries to fathom our intentions, and when he sees us take down the gun or the old shooting coat he races, barks, dances and nearly jumps over our head with joy.

I imagine that the longed-for first of November is at last at hand. By sunrise we are in the field. The morning is bright, fresh and frosty, and our nerves all tingle with happy anticipations as we enter a buckwheat stubble bordering a piece of tangled wood. The moment we cross the fence the dogs strike for the leeward side of the field, and take a slow canter back and forth, crossing each other's path at almost regular intervals so as to pass within scent of every particle of ground, but moving steadily ahead. Their eyes flash with excitement, and the tips of their tails lashing rapidly from side to side. See them slacken occasionally to a trot and then to a walk as they fancy they smell something suspicious, and give a sniff of extra caution as they approach a clump of briars or patch of weeds.

Jack suddenly stops in full career, raises his nose and falls into a slow walk. His tail, empathizing with its corporeal attachment, slackens also to a slow, wavy motion. Now he stops a moment, takes a few delicate sniffs of the spicy breeze, looks cautiously about him and then at us with an expression which says as plainly as could human tongue, "O. K." Meanwhile Dash is at the other end of the field, tearing about like a lunatic on the fresh trail of that prince of nuisances, the detestable little cotton-tailed hare. When they will often make a fool of an old and sober dog what else can be expected

of a young one on the first day of his second season? An affectionate fondling with a very impressive pocket black snake restores him to his senses, and he begins to watch Jack with intense interest and almost imitates his motions as he once more moves slowly on.

Jack stops again. This time he drops his head, raises one foot and stops the light, wavy motion of his tail, which now becomes stiff and straight as a ramrod, but quivers faintly at the tip with excitement. Da-h stands a few yards behind looking on with gently swaying tail and sparkling eye, but with no other sign of life. All around us is still as death, except the autumn breeze sighing along the ground, the patter of nut shells which the squirrels fling from the old yellow hickory in the wood, the piping of the robin, squeal of the highholder in the old red gun tree, or the melancholy cry of the bobolink in his altered coat, bidding farewell to his summer home. Few moments of our weary lives are more delightful than this, with every nerve strung to its utmost tension, we are excited in spite of, our long experience and our pulse bounds in spite of our effort to be cool and collected. But oh, shame! Our thoughts are earthly and sensuous. We want meat, "and think only of our tooth and the market value of our birds!" Alas! how

"One by one, in turn, some grand mistake  
Casts off its bright skin yearly like the snake."

But a few months ago we cherished the fond delusion that we were gentlemen enjoying one of the divinest of earthly pleasures. But we awoke from our pleasant dream to find ourselves ruthlessly consigned to the vulgar herd of meat hunters by that immortal hand that, disclaiming the butcher's weapon, slays with the long bow in true godlike style, woodpeckers when "young and fat" and "juicy and sweet," poor little larks for their "exquisitely enjoyable" thighs and unweaned squirrels for their "deliciously toothsome" flesh.

As we slowly advance, fourteen or fifteen quail suddenly spring from a few feet ahead of Jack with simultaneous burst and spin like bullets for the brush. Quick as a flash your eye settles upon a single one; the gun comes to your shoulder; you catch a dim glimpse of the barrel lying in the bird's direction; in a twinkling there is a shock, a report, smoke, feathers flying, something whirling downward. The gun shifted and another bird comes down, bouncing along the ground within ten paces of the first one. And all done in a second! As handsome a double shot as ever was made. I tried the same thing; but my two went buzzing away to the woods without leaving a feather floating on the air.

The dogs remain in their tracks until we load, when we send one for the dead birds and then move on to the woods where our little friends disappeared. On arriving there Dash comes to a point. Just ahead of him, from under a knot of tangled cat briars, darts a brown, whizzing streak and vanishes in the thicket. But your eye catches his direction; the gun comes like a flash to the same line; the charge sweeps through to the green briars and dead leaves, and a dull, heavy fall is heard. A fine snap shot that—not done, as some suppose, without any aim, but by an aim, dim and indistinct indeed, and quick as thought, but still an aim; a shot requiring the highest perfection of both natural and acquired skill. But no; we are again mistaken, for the lord of the mighty bow has made the discovery—back seats, Newton, Galileo, Columbus and others—that any fool must necessarily hit a quail every time with a wholesale murder dispensary that covers the enormous space of two feet.

Dash brings the bird, and we move on. The dogs beat the ground closely over and over again, but can find nothing more. Can we have mistaken the place, or have the rest gone further on? No, they are probably here, but holding their scent. There is but one way to beat them on this trick—to wait. We will spend about half an hour among the saplings down by the little spring run after woodcock. We do so, and bag five full-grown, strong-winged, whizzing beauties that make us feel ashamed for having killed those feeble little wretches last summer.

As we approach a thicket along the brook Dash begins to draw; and before he can get close enough for a point out bursts two splendid ruffed grouse. Their hoarse, roaring wings carry them like arrows from our sight before we get our guns fairly raised. We catch their course, however, and follow them. Soon Jack draws. Lively now! Have your gun at the hip and your finger on the trigger. Up they spring

like a flash about twelve yards from us. Both guns crack together, and down comes one within ten feet of the place from which he sprung. The other darts ahead some two hundred yards and lights in a tree, a thing they sometimes do even when not chased or barked at.

Going up to the tree we discover him standing erect and still as a statue near the trunk on a limb about ten feet above us. What a thrill such a chance would send through the gastronomic appointments of the great modern revolutionist! Imagine the wild tumult of tender emotions in his salivary glands as he draws the weapon of the gods at the "rich, white, tender, sweet, luscious, toothsome, delicious, etc.," breast, and with marvellous skill pot-shoots him with an arrow at ten feet distance! Well, let us try him with the unscientific blunderbuss that must necessarily kill in the hands of any bungler. I shy a piece of dead stick at him accompanied with an imitation of his noisy flight. Off he goes with a downward curving rush like the swoop of a falcon. Bang, whang, whang, bang, go our four-barrels, and through the smoke and flying leaves we catch a glimpse of a dim streak fading away in the distance without even a feather for a souvenir.

But it is now time to return to our quail. We will try and make a sure thing of it now. Stopping about one hundred yards from where we think they are, we sit down and I commence the "Autumn call," or more properly, perhaps, the female's call. After giving it a few times at intervals of three or four minutes between every three or four notes, we suddenly hear, right from the place we hunted so closely, the tender, sweet "Kloi—ee—ee, kloi—ee—ee, kloi—ee—ee." Our answer is soon followed by another and soon by several more from the same direction. They are moving now, and we will try them in a few moments.

We do so; and in less than two minutes both dogs are pointing on ground they hunted so carefully about an hour ago. Dash has his head low down and turned toward a clump of dead grass and briars, while Jack is a few yards off, all screwed up in a heap as if on a fall and he had struck an invisible stump and stuck fast to it. Let's attend to Dash first, and you take the shot. Nothing stirs as you walk in ahead of him; but he moves in a step closer, and crawls around to the other side, faintly wagging his tail, crouching low and trembling all over with excitement. You give a kick at the clump; but all is still again except Dash, who this time crawls up until his nose is within six inches of it, and looks nearly crazy with expectation. Another vigorous kick, and Dash, unable to contain himself any longer, jumps in at the same time. Out comes a quail from between his fore paws, twists around your head and buzzes away behind you. But just as he vanishes behind a thick little scrub oak your shot shivers its dead leaves and down he comes.

After Dash brings it we go to Jack who is still keeping his point with the serene composure of a two-pound bull frog on a sunny mud bank. Dash backs him at once. Away go two birds almost from under Jack's nose. No wonder the old chap stopped so quickly. One falls to each gun. On ordering Jack to bring them he does not move, but only turns his head slightly.

"What, still another there?"

It looks like it, certainly. Most any good steady dog will do that sometimes. On kicking around in the direction of Jack's nose another starts from the dead leaves almost under our feet, and wheels quickly upward to the left, while three barrels harmlessly turned the thick brush behind him. The rest of the birds are soon found. As they have all been moving, a little the dogs find them at once. While hunting up the last Dash strikes a trail which, from his actions, is evidently that of another boy that have run in from the stubble where we found the first. On he goes, followed cautiously by Jack, now winding around fallen tree tops, now crawling through cat briars without a whimper, now faster, now slower, now stopping, now creeping on again. On he goes, one hundred yards, two hundred yards, a long trail, but a fresh one. A ruffed grouse bursts with a shivering rush from before him, but he pays it no attention. A dirty little hare flirts up from behind a stump in his path, and makes him give an involuntary start, but with a wistful look in the direction of the little woolly-tail he moves straight ahead. On he goes, scarcely moving now, step by step he crawls, with the stealth of the midnight thief, down toward the brook.

Hello! there they are about thirty yards ahead on that lit-

the sand bar in the brook, drinking. There are over a dozen. There! they see us now. Hear their little soft, musical "tee-tee-tee-tee" of alarm as they huddle into a beautiful medley of blue tails, white and yellow collars, mottled breasts and rosewood colored backs. What a chance for a pot-shot! The mercenary wretch who could fire into them now, would smush up the Venus de Medici for soda water.

As we gaze upon them in admiration they steal gracefully away into the grass along the bank and disappear. We soon start them however and they scatter in a grove of scrub oaks and saplings further up the brook. Here we have a high old time. Every second or third point of the dogs is on a grand old woodcock, who goes whistling up through the trees on a rapid cork screw course that tries our utmost skill. As we swing from time to time toward the thickets of black haws, and thorn apple along the water, a ruffed grouse suds away on whizzing wing. Nothing but the liveliest kind of motions will do here. Sometimes we have to drop suddenly on one knee to get even a glimpse of the bird and shoot instantly in that position. A woodcock darts upward to the top of the tree, and just as we think the gun is on him he drops down at a sharp angle. A quail wheels around our heads, and as we whirl quickly around, he darts off through the leaves at a tangent, leaving us to recover our balance as best we may. A grouse goes with so rapid a rush and start at such a distance that the gun must go off the instant it touches the shoulder or it is of no use. But still we are nearly equal to the emergency. Many a charge goes tearing harmlessly through the brush and scattering flying leaves in vain; but all the greater is the satisfaction when we do hit.

God bless the man who invented quail shooting. Who does not say Amen?  
T. S. VAN DYKE.  
*Miner's Rancho, San Diego Co., Cal.*

## THE UPPER MAGALLOWAY RIVER.

IT is the prevailing custom with most visitors to this region to take from home all the paraphernalia for camping out, including a tent, cooking utensils, canned meats, etc., etc., which make a formidable array of boxes and bundles, and necessitate much trouble and expense in transportation. At the falls of the Magalloway the entire load and party are usually placed in a small boat with one guide to work them up the river. When a party of four or more are intending to spend several weeks at one spot, this may prove the most economical, but for a party of a less number it is far more pleasant and also cheaper to depend on the different camps that have been built; and where experienced guides can always be engaged to pilot to hunting or fishing places not generally known to the "dwellers in tents." Having given both plans a thorough trial, I must give the preference to the latter, and will mention some of its advantages.

There are two seasons of the year for making this trip, both of which may be equally enjoyed, free from flies, midges or mosquitoes. The first is from the middle of May to the first of July; the second from the first of September until cold weather drives you home. During July and most of August, insects of great variety, from the "mosc-fly" over half an inch long, to the midge, with its minuteness, infest the entire region. Then, too, the chub is more eager for your cast than the trout, and there can be but little genuine sport or comfort attained. In June the trout are in their best activity, eager to rise, and often splashing water into your boat in their endeavors to free themselves—they are also in better condition for food than at any later season. After the early fall rains, trout weighing from three to six pounds can be taken in the eddies of the river above the meadows and also at their spawning grounds in the lakes, but no honest sportsman will take them after the first week in October. The early season is best adapted for rod, while the gun will be required in the fall.

In Farrar's "Guide to Richardson and Rangely Lakes," a route is given to the Magalloway River, via, Upton, Me. This necessitates a night ride of twenty-six miles by stage, or the loss of one day by waiting over at Bethel until the next morning; then from Upton to Errol Dam Landing by stage, from whence a little steamer makes tri-weekly trips to Wentworth's Location, N. H. There you are transferred to a wagon to make the carry to Azischo's Falls, thus making five changes from cars to head of falls. A more pleasant and less expensive way of making the Magalloway trip is one recently taken by the writer, North Stratford, on the Grand Trunk Railroad, being the point we desired to reach by rail. Having fixed upon the time for starting, we packed in one box easy to handle, such clothing and articles as would only be needed after our arrival at the falls; this was sent via express to Colebrook, N. H., there to await our arrival. What was needed otherwise was taken in traveling bags and shawl straps. Arriving at North Stratford at 8:30 P. M., we were conveyed to Colebrook fully an hour in advance of the regular stage. Having arranged for an early start, the next morning we were awakened at half-past 4 o'clock, and by half past 5 had started for Azischo's Falls in a light two-seated top-wagon, in which were placed our box, travelling bags and bundles. The road to Errol Dam is in excellent condition and passes midway through the celebrated Dixville Notch. At Errol we turn to the north, enter the forest and soon reach the lower Magalloway above its junction with the Androscoggin, and by noon arrive at Mr. Flint's, in Wentworth's Location. The few scattered houses in this valley are called "The Settlements." Mr. Flint, whose post office address is Wentworth's Location, N. H., is the leading spirit in the section, and his geniality and hospitality are unbounded. He has several sons, who are active, muscular men, perfectly familiar with the mountains, lakes and rivers for many miles around. To secure either one of them as your guide is the *sine qua non* for rare sport and plenty of game. The two eldest, T. S., or "Spoff," as he is familiarly called, and Frederick, have excellent camps on the river. The one built by Fred this season at the head of the falls is a large substantial house containing several rooms with nice beds and all the comforts to be found at the settlements, showing evidence of a woman's taste and care, for Mrs. Flint assists her husband here in providing for the guests who are constantly arriving. Her cooking can not be excelled, and one will be surprised at the amount of food they can eat at her table. There is no dyspepsia here.

We reached this last evidence of civilization about 4 P. M., distant from Colebrook thirty-eight miles. The last three miles, called the Carry, is quite rough, but will soon be put in good order. Passengers can avoid this by taking a foot-path through the woods, while the team conveys their baggage around. We secured a boat, and also the services of a man to accompany us up the river and bring the boat back, as we were bound for Spoff's Camp, thirty miles above, and he had light boats at all the places where we should need one. We thus avoided the expense of keeping the boat when not in use, and the trouble of taking it across the carries. We were up early next morning, and donned our rough clothing. At half past six A. M. we commenced to ascend the river, using one set of oars and one paddle. As there were three of us, one could be resting while the others were at work, each in turn doing their share at oars or paddle. The weather was all that could be desired, with no ripple on the dark placid water, and all nature seemed to be in repose. I will not enter into the romance of this singular river, with its tranquil water and picturesque effects, as I could not do the subject justice, but I recall what my friend Thad. Norris, in "Dies Piscatoris," said of the Magalloway: "This river is crooked beyond description; it is a practical exemplification of the ways of the Evil One. One minute the sun is behind you, the next ahead; then right and left, across the middle, up and down in every imaginable position. You have to row three miles to get anywhere, if it isn't more than twenty rods off." Mr. Norris had at that time been only a short distance above the falls. Through the meadows the river is far more crooked than below; in fact there are 239 decided bends between the falls and mouth of the Little Magalloway, where the distance by river is thirty miles, and by air line about ten. It generally requires a camping party over twelve hours to reach Spoff's landing—just above the mouth of Little Magalloway—but it was accomplished by us at this time in seven hours and a half without blistering our hands. This was said to have been the fastest time in going up this season. I had been down the river with a party of six in seven hours, assisted, of course, by the current.

Spoff's Camp is half a mile from the landing, on the carry to Parmachenee Lake, which is three miles distant. His camp fronts on Sunday Pond, the shore of which is formed like an Indian bow. The water is clear as crystal, and fed by numerous cold springs. Here is as lovely a spot as one could desire, in which to secure rest and quietness, or to make headquarters, for now we are within easy distance of all the best fishing and hunting grounds of this region. The pond contains nothing but trout; some of them have been taken weighing as high as six pounds, and visitors to the camp are privileged to cast for them whenever they chose.

Mr. Flint never tires in his endeavors to give his guests all the sport they want. No Indian can excel his skill with the paddle, and his services are consequently much in demand for sail or jack hunting. He is acknowledged to be the best guide in all this wilderness, so that a party with him need never return unsuccessful. There are a number of large ponds within a few miles of this camp, where the flies have never yet been cast. It is only a year since Lincoln Pond was known to contain trout of any large size. Farrar refers to it in this year's Guide as "stocked with small trout weighing from a few ounces to a pound each," while I have never seen a trout caught with a fly from that pond which weighed less than one and a half pounds, and I have taken them weighing from three to four pounds. One that I took at sunset near the outlet was twenty-two inches long. Mr. Flint has a camp and boat at this pond, and by next season he will probably have the same accommodations at Hunter's Pond, which has not yet become known to the public. To the lovers of the gentle art I can assure a spot of surpassing loveliness, where those who love to be quiet can "go angling."

W. C. E.

## AN OCTOBER MEMORY SKETCH.

THE day is one of those bright golden gleams of the past and faded summer. Early morning finds the ground covered with the grey, glittering hoar frost, which the warmth of the noon-day sun disperses. The face of nature is bewitchingly brilliant in her autumnal dress. Ash, oak and maple vie with other for the mastery. The air is clear and bracing. Off we plod for a day with the fall snipe. We have been keeping a sharp lookout for these unreliable fellows, and only yesterday, which was Sunday, we found the meadow well populated. Still there is no certainty of catching them to-day. They may have stopped over Sunday only. Perchance they had religious scruples against traveling on the Sabbath. Still a few tardy stragglers may have lingered and we shall try to stir them up. We are accompanied by our young Irish setter Dash. A tyro is he in simple hunting, barely fifteen months, having passed over his heat, but he has shown excellent qualities during the summer cock-shooting, and our disappointment will be great if he falls short of the mark on the snipe.

We have reached the river—one of those New England streams celebrated for its picturesque beauty, whose valley and that of its principle tributary afford illimitable scope for the artist's brush and the pen of the romancer. The immediate confines of the stream are often extensive meadow lands which are occasionally overflowed by the high tides of spring and fall. These wet lands present to the snipe their favorite haunts for feeding, and here they stop in considerable numbers during their migrations. But the Wilson's snipe is proverbially an unreliable bird, spending to-night with us and to-morrow a hundred miles away. Thus its successful pursuit is largely a matter of chance.

As we row up the river various birds sail swiftly by us on their long journey to the sunny South. The industrious osprey is seen perched high on the overhanging pine, his keen eye ever watchful of the finny tribe below, while myriads of small birds fill the air with their musical calls and the shadows of their wings. At no season is nature so lavish of her bounty as during this golden era when, crops harvested and garnered, she takes a brief respite from her long labor.

As we touch the opposite shore of the stream a bunch of wood ducks spring from the mouth of the creek near by. How they cleave the air with their wings, seeming to use even their feet in their frantic efforts to escape. Recovering our first surprise the goats roar simultaneously and one of the handsome birds floats lightly on the water. In a moment Dash is

overboard and the duck retrieved. We now drag our craft high and dry on the meadow and having secured all our impedimenta we start for the other end of the marsh in order that the breeze which is lightly blowing from the south may be at our backs as we beat the ground. Dash trots behind at our heels full of enthusiasm, but not looking for game in the open meadow. Chancing to glance around, after having traversed a hundred yards or so, we notice that the dog has stopped quite a way back and is making furious game close by the path we have been following. Before we reach him he has come to a half point, but looks rather confused and nervous, both head and tail slightly. The bird had evidently been lying close by our path within a few yards of us as we passed, and the scent coming to Dash warm and fresh sent him searching for the cause of it. The bird was, after some trouble, flushed and bagged and proved to be only a rail (*P. Carolinensis*) which had been running in front of the dog and had perplexed him not a little. We were disappointed, of course, for we had confidently expected a jack snipe to skitter up and away.

Having reached the southern limit of the meadow we turn and allow Dash to go in. At first he seems a little in doubt as to what is required of him, but his experience with the rail has taught him that there are birds in the grass and weeds, and he blunders along, sniffing here and there until suddenly he seems to take a livelier interest in his occupation. He hesitates for a moment, then slackening his pace crawls slowly forward. The tail, which had been beating his flanks at the rate of a mile per minute, vibrates more and more slowly and finally becomes rigid as a bar of iron. Surprised no less than delighted that a dog so young should stand so staunch we stop to gaze upon the fascinating picture. What a subject for Landseer. There Dash stands all trembling with suppressed excitement his head well in front, the fore-foot poised and the beautiful tail with its hanging fringe of feather so exactly in a line with his back. Having held the good fellow for a moment we walk forward and from under his very snout, with a hoarse squeak, the first snipe of the day darts up, but pitches forward at the report of the gun which cuts him down at thirty yards. Dash makes a wild plunge in, as the bird flops up, but comes to charge at a sharp call. We proceed to chastise him for his misdemeanor. As the whip descends it is followed by a cry from D. S. H. The noise starts a second bird from the grass within three feet opens. The whip is dropped, the gun seized from the ground where it had been placed for a moment, and snipe number two drops with a broken wing. Fresh cartridges are slipped into the empty chambers and Dash retrieves birds number one and number two in fine style. They are found to be in excellent condition.

We start again. Dash having learned where to look for his birds works superbly and beyond our most sanguine hopes, and we find the birds moderately plenty. As we approach a small creek winding through the meadow a solitary blue wing teal springs from the water and is dropped with No. 10 shot at a good fifty yards. Within one hour we have secured four snipe, four rail and two ducks. We cross and re-cross the meadow; the birds get up just often enough to keep us comfortably employed.

As the day advances the snipe lie remarkably close and Dash has some trouble in finding them. One of his points calls for special mention. We were going slowly and trying to do every inch of ground. Dash was quartering to our right when he was seen to stop short half a cross a big and, with his forelegs far apart and his head held downward and a little to one side, he came to a stiff point. The bird proved to be under the edge of a tussock almost directly beneath him and when flushed got up under his body and whirled away in great fright. We continued to hunt the meadow, which was extensive, and by three o'clock when we returned to our boat and lit our pipes, prior to pushing off, we had a bag of thirteen snipe, eight rail, or mallard, teal and woodcock, besides having had a glorious tramp under the warm October sun.

RAMON.

*For Forest and Stream and Rod and Gun.*

## A SPORTING REMINISCENCE OF THE WARWICK WOODLANDS.

IT was in July, 1876, that my friend, Clarence, proposed to me that we take a trip to the country and have a "bang" at the woodcock, the prince of all game birds and the tit-bit of the American table. The swamps in the vicinity of Warwick, N. Y., were settled up for our campaign—not that they afforded superior sport, but because it was easy of access from New York, and my friend had shot many a woodcock there in days gone by. It did not take a days to prepare us for the field, for Clarence and I have shot for several years together, and are always ready at a moment's notice to start with clean guns and fresh dogs—generally too fresh for much comfort the first day.

We arrived at Warwick the next evening, and, after seeing our dogs well cared for, we partook of a light supper and turned in for the night. The sun was just commencing to peep through the window blinds the next morning, when turning over in my bed I was surprised to see Clarence half dressed. I was not long in making up for lost time, and soon we were both prepared for the field.

Everything bid fair for a hot, sultry day—too warm to shoot with any comfort. But our stay was limited, so we went forth without a murmur. Our drive down the valley was very pleasant, and we soon reached the first cover, and after tying our horse in the shade gave the dogs the word, "Hi-on!" An escaped convict could not have been happier than those two dogs were the moment they were released. Bounding through the thickest cover, crawling under fallen trees, sniffing and snorting at every step; why, I thought that they would go half crazy, and it was not until we had done considerable scolding that they took well to their work. Clarence and I watched with pleasure the young pup imitate every movement of the old dog, for this was her first hunt on woodcock.

On and on we trudged, our dogs working faithfully and beating every foot of ground. No birds! But see; the hot-toms are full of "horings!" "Yes, sure enough; but look there, and there!" said Clarence, at the same time pointing out numerous dog tracks, and the ponderous foot print of a small boy. We knew very well that we were two weeks behind time, but really three or four weeks too early to enjoy

the sport in a manly way. The poor little fledglings had been well looked after long before our arrival, and there were but few, if any, left. With a long face we turn sharp to our right and beat our way back to the wagon. "Look out, Clarence, my dog is drawing." Away went Mr. Cook, which I very cleverly missed, but he was nicely taken by my friend. This gave us renewed vigor, for, as a rule, when you find one bird you will find at least two. In this case it was too true; for before we reached the end of the cover my dog "spiked" one which fell an easy prey to my piece.

I picked up all that was left of this little thing, for his soft, pliable bill and scant covering of feathers showed too plainly that he was the only mourner of a late brood. Although we retraced our steps not another bird did we see, and after breaking through into the bright sunshine, almost exhausted from the heat, we tumbled into our chaise and rolled off for fresh cover. Our next stopping place was a swamp on a quiet little stream called the "Wa-wa-yanda River," but more familiarly known as "the creek." Here we decided to separate, Clarence going down on the northern side of the stream while I struck out southward. I placed two fresh shells in my gun and sallied on, my dog occasionally taking a swallow, which seemed to refresh him exceedingly. Soon I found myself in a mighty forest, far away from the fields of waving grain and the bright rays of the summer sun.

Feeling quite tired, I sat down on a log to take a little rest. After wiping the perspiration from my brow, I began to take a general survey of the surroundings. I found on every side long swales of black-looking earth, quite thickly covered with a strong growth of ferns and wild grass—a perfect paradise for the woodcock and as bountiful a cover as you could wish to shoot in. I spent some little time on this log, for I was alone—not even a leaf seemed to yield to the gentle breeze, and the occasional rapping of a woodpecker, who sat perched upon a dead limb, was all that broke the silence.

"And in that lonely solitude, overtaken  
By some speckled avian,  
Their cars shook from them, like needles shaken,  
From out the gusty pine."

This is the scene of the Warwick Woodlands. Here Frank Forester used to roam in quest of that game bird he loved so well. Here ranged dogs without a fault under the skillful hand of their master. Here, at every step, woodcock rose, only to fall to the fire from a true eye and a cool hand, and a man who put all his heart into his work. Is it possible, thought I, that some of these great trees in their youth shaded Forester? Reader, stop for a moment and think of the shooting on these grounds quarter of a century ago. Think of it to-day. Is it not another sad reminder that this noble bird is slowly but surely being exterminated? But I have been dreaming my time away and must press on.

I spent some time in this swamp, thoroughly beating all the available swales, and returned to the wagon with but two birds. My friend had been waiting for me some time, having gone all over his ground, and with about the same success. It is no use about noon, and will be useless to hunt any more until sundown. Old "Roan" is taken from the shafts and led back to the wagon, where he seems to wonderfully enjoy the new mown grass brought purposely for him. Our lunch is soon through with, and after lighting up a weed, we roll in the shade of the wagon and enjoy solid comfort.

We have a long drive to the next cover and must be off. Roan reluctantly takes the bit in his mouth and stumbles clumsily into the shafts.

The modest, though enterprising little city of Warwick, nestled cozily at the foot of the Wa-wa-yanda Mountains, was soon reached. At the upper end of town we chanced to meet an old gentleman, considerably past the sunny side of life, whom we stopped to ask a few questions about the roads. We found him to be a pleasant old fellow, well posted on local matters, and quite ready to answer any questions put to him. Noticing our outfit he seemed to become interested in us, and we found him to be an advocate of out-of-door sports, and I asked: "Did you ever know Frank Forester?" The old gentleman's whole face seemed to glow with delight as he replied: "I did, my lads, but it was many years ago when I knew Herbert. Look! do you see that long house up there? Why, that's where Herbert used to stay when you were in town. Do you see that mountain way yonder, lads? There old fat Tom Ward (Tom Draw), on many a cold winter's day, used to stand on the warm side of a tree and watch his hounds running like 'killdum' after the foxes, and he used to get 'em, too, boys. Yes, I did know Forester."

Of course we set out toward the house just pointed out, and, halting in the shade of a maple, we gaze upon the dwelling which, though old-fashioned, has the appearance of solidity and comfort. The house stands at the junction of two roads, and at the extreme upper end of town. Along the entire front runs two roomy porches, one above the other, and from appearance it would be safe to say that at some time it had been a hotel, and I have since been told that, though long known as the "Old Stage House," it is now occupied as a private residence. I will not tire the reader by taking him through another swamp where the birds were few, and whence, after securing another brace of birds, we turned our faces homeward. As a woodcock shoot the trip was not a success, but the pleasure this trip afforded me I shall never forget. C. W.

**INTRODUCTION AND SUCCESSION OF VERTEBRATE LIFE IN AMERICA.\***

By O. C. MALISE.

PRESIDENT OF THE BIOLOGICAL SECTION OF THE AMERICAN ASSOCIATION.

SIXTH PAPER.

The order *Troodontia* includes two very peculiar genera, *Troodon* and *Nesodon*, which have been found in the post-tertiary deposits of South America. These animals were of huge size, and possessed such mixed characters that their affinities are a matter of considerable doubt. They are thought to be related to the Ungulates, Rodents and Edentates, but, as the feet are unknown, this cannot at present be decided.

*Macrauchenia* and *Homalodonotherium* are two other peculiar genera from South America, now extinct, the exact affinities of which are uncertain. *Anoplotherium* and *Palaotherium*, so abundant in Europe, have not been found in our North American Tertiary deposits, although reported from South America.

Perhaps the most remarkable mammals yet found in America are the *Tilloodontia*, which are comparatively abundant in the lower and middle Eocene. These animals seem to combine the characters of several different groups, viz.: the Carnivores, Ungulates and Rodents. In the genus *Tillotherium*, the type of the order, and of the family *Tillotheridae*, the skull resembles that of the Bears; the molar teeth are of the ungulate type; while the large incisors are very similar to those of Rodents. The skeleton resembles that of the Carnivores, but the scaphoid and lunar bones are distinct, and there is a third trochanter on the femur. The feet are plantigrade, and each had five digits, all with long pointed claws. In the allied genus *Stylinodon*, which belongs to a distinct family, the *Stylinodontidae*, all the teeth were rootless. Some of these animals were as large as a Tapir. The genus *Drylodon* has been found only in the *Coryphodon* beds of New Mexico, while *Tillotherium* and *Stylinodon* occur in the middle Eocene of Wyoming. *Anchippodus* probably belongs to this group, which may perhaps include some other forms that have been named from fragmentary specimens.

The Rodents are an ancient type, and their remains are not infrequently disinterred in the strata of our lowest fresh-water Eocene. The earliest known forms are apparently all related to the Squirrels, and the most common genus is *Sciurovoss*, which continued throughout the Eocene. A nearly allied form, which may prove to be the same, is *Paromyia*, the species of which are larger than those of the older type. In the Dinoceras beds, the genus *Colonomys* is found, and the specimens preserved point to the *Muridae*, as the nearest living allies. A peculiar genus, *Apatemys*, which also occurs in the middle Eocene, has glirrifem incisors, but the molars resemble those of Insectivores. All the Eocene Rodents are of small size, the largest being about as large as a rabbit.

In the middle and upper Miocene lake-basins of the West, Rodents abound, but all are of moderate size. The Hares first appear in the Oreadon beds, and continue in considerable numbers through the rest of the Tertiary and Post-Tertiary to the present day. In these beds, the most common forms belong to the *Leporidae*, and mainly to the genus *Palaeolagus*. The Squirrel family is represented by *Ischyromys*, the *Muridae* by the genus *Eumys*, and the Beavers by *Palaeocaster*. In the upper Miocene of Oregon, most of the same genera are found, and with them some peculiar forms, very unlike anything now living. One of these is the genus *Altomys*, possibly related to the flying Squirrels, but having molar teeth somewhat like those of the Ungulates. In the Pliocene, east and west of the Rocky Mountains, Rodents continue abundant, but most of them belong to existing genera. Among these are *Castor*, *Hystrix*, *Cynomys*, *Geomys*, *Lepus* and *Hesperomys*. In the Post-Tertiary, the gigantic beaver, *Castoroides*, was abundant throughout most of North America. *Hydrochoerus* has been found in South Carolina. In the caves of the island of Anguilla, remains of large extinct Rodents belonging to the *Chinchillidae* have been found.

The early Tertiary Rodents known from South America are the genera *Megamys*, *Theridromys*, and a large species referred to *Arvicola*. In Brazil, the Pliocene Rodents found are referred to the existing genera *Cavia*, *Kerodon*, *Lagostomus*, *Ctenomys*, *Hesperomys*, *Oryzomyia*, *Arvicola* and *Lepus*. A new genus, *Cardobius*, described from this horizon, is a true Rodent, but the peculiar *Typotherium*, which has been referred to this order by some authorities, has perhaps other affinities. In the Post-Tertiary, the Rodents were very abundant in South America, as they are at present. The species are in most instances distinct from those now living, but the genera are nearly the same. The *Canidae* were especially numerous. *Cercolabes*, *Myopotamus*, and *Lagostomus* are also found, and two extinct genera, *Phyllomys* and *Lonolophomys*.

The *Cheiroptera*, or Bats, have not been found in this country below the middle Eocene, where two extinct genera, *Nyctolestes* and *Nyctitherium*, are each represented by numerous remains. These fossils all belong to small animals, and, so far as they have been investigated, show no characters of more than generic importance to distinguish them from the Bats of to-day. No other members of this group are known from our Tertiary. In the Post-Tertiary, no extinct species of Bats have been found in North America, but from the caves of Brazil quite a number have been reported. These all belong to genera still living in South America, and most of them to the family *Phyllostomidae*.

The Insectivores date back, in this country, at least to the middle Eocene. Here numerous remains occur, which have been described as belonging to this order, although it is possible that some of them were insect-eating Marsupials. The best known genera are, *Hemiacodon*, *Centetodon*, *Talpaevus*, and *Eutamias*; all represented by animals of small size. In the Miocene, the bones of Insectivores are comparatively abundant, and the genera best determined are *Ictops* and *Leptictis*. A few specimens only have been found in the Pliocene and Post-Pliocene, most of them related to the Moles. No extinct Insectivores are known from South America, and no member of the group exists there at present.

The *Carnivora*, or true flesh-eating animals, are an old type, well represented in the Eocene, and, as might be expected, these early forms are much less specialized than the living species. In the *Coryphodon* beds, the genus *Linnocyon*, allied to the *Pterodon* of the European Eocene, is abundant. Another genus, apparently distinct, is *Protobionus*, and several others have been named from fragmentary fossils. In the middle Eocene, Carnivores were still more numerous, and many genera have been discovered. One of these, *Linnocyon*, was nearly as large as a lion, and apparently allied to the cats, although the typical *Felidae* seem not yet to have been differentiated. Another Carnivore of nearly equal size was *Oroyon*, which had short, massive jaws and broad teeth. *Dromocyon* and *Meomys* were large animals, allied to *Hyenacodon*. The teeth were narrow, and the jaws long and slender. Among the smaller Carnivores were *Vulpavus*, *Viverravus*, *Sinops*, *Thiacoyon* and *Lephacon*.

In our Western Miocene, Carnivores are abundant, and make an approach to modern types. The *Felidae* are well represented, the most interesting genus being *Machairodus*, which is not uncommon in the Oreadon beds on both sides of the Rocky Mountains. An allied genus is *Dinictis*, and several smaller Cats are known from about the same horizon. The *Canidae* are represented by *Amphicyon*, a European genus, and by several species of *Canis*, or a very nearly allied form. The peculiar genus *Hyenacodon*, found also in Europe, and the type of a distinct family, is abundant in the Miocene east of the Rocky Mountains, but has not yet been found on the Pacific Coast. In the Pliocene of both regions, the *Canidae* are numerous, and all apparently belong to the existing genus

*Canis*. The genus *Machairodus* is still the dominant form of the Cats, which are abundant, and for the most part belong to the genus *Felis*. The extinct *Leptacris* is supposed to belong to the *Ursidae*, and if so, is the oldest American representative of this family. In the Post-Pliocene, the extinct *Felidae* include species nearly as large as a lion, and smaller forms very similar to those still living. Bears, Raccoons and Weasels have also been found.

In the Pliocene of South America, *Machairodus* represents the *Felidae*, while the genera *Aretotherium* and *Ilyenacrus* belong to the Bear family. Species of *Mustela* and *Canis* have also been found. In the caves of Brazil, the fauna of which is regarded as Post-Pliocene, one species of *Machairodus* is known, and one of *Synaulurus*. *Canis* and *Ictocyon*, still living in Brazil, and the extinct genus *Speothos*, represent the *Canidae*. *Mephitis* and *Galictis*, among the Weasels, were also present, and with them species of *Nasua* and *Arctotherium*.

We come now to the highest group of Mammals, the Primates, which includes the Lemurs, the Apes and Man. This order has a great antiquity, and even at the base of the Eocene we find it represented by several genera belonging to the lower forms of the group. In considering these interesting fossils, it is important to have in mind that the Lemurs, which are usually regarded as Primates, although at the bottom of the scale, are only found at the present day in Madagascar and the adjacent regions of the globe. All the American Monkeys, moreover, belong to one group, much above the Lemurs, while the Old World Apes are higher still, and most nearly approach Man.

In the lower Eocene of New Mexico, we find a few representatives of the earliest known Primates, and among them are the genera *Lemuravus* and *Limnotherium*, each the type of a distinct family. These genera became very abundant in the middle Eocene of the West, and with them are found many others—all, however, included in the two families, *Lemuravidae* and *Limnotheriidae*. *Lemuravus* appears to have been most nearly allied to the Lemurs, and is the most generalized form of the Primates yet discovered. It had forty-four teeth, forming a continuous series above and below. The brain was nearly smooth, and of moderate size. The skeleton most resembles that of the Lemurs. A nearly allied genus, belonging to the same family, is *Hyopodus*. *Limnotherium* (*Tomitherium*) also is related to the Lemurs, but shows some affinities with the South American Marmosets. This genus had forty teeth. The brain was nearly smooth, and the cerebellum large, and placed mainly behind the cerebrum. The orbits are open behind, and the lacrymal foramen is outside the orbit. Other genera belonging to the *Limnotheriidae* are, *Notharctos*, *Hippomyia*, *Miosylops*, *Palaeocodon*, *Thalastes* and *Telmatolestes*. Besides these, *Antiacodon* (*Anapitomorpus*), *Bathrodon* and *Mesacodon* should probably be placed in the same group. In the Diplocædon Beds, or Upper Eocene, no remains of Primates have yet been detected, although they will doubtless be found there. All the Eocene Primates known from American strata are low generalized forms, with characters in the teeth, skeleton and feet that suggest relationships with the Carnivores, and even with the Ungulates. These resemblances have led paleontologists to refer some imperfect specimens to both these orders.

In the Miocene lake basins of the West, only a single species of the *Primates* has been identified with certainty. This was found in the Oreadon Beds of Nebraska, and belongs to the genus *Laopithecus*, apparently related both to the *Limnotheriidae* and to some existing South American Monkeys. In the Pliocene and Post-Pliocene of North America, no remains of Primates have yet been found.

In the Post-Pliocene deposits of the Brazilian caves, remains of Monkeys are numerous, and mainly belong to extinct species of *Callithrix*, *Cebus* and *Jacchus*, all living South American genera. Only one extinct genus, *Protopithecus*, which embraced animals of large size, has been found in this peculiar fauna.

It is a noteworthy fact, that no traces of any Anthropoid Apes, or indeed of any Old World Monkeys have yet been detected in America. Man, however, the highest of the Primates, has left his bones and his works from the Arctic Circle to Patagonia. Most of these specimens are clearly Post-Tertiary, although there is considerable evidence pointing to the existence of man in our Pliocene. All the remains yet discovered belong to the well-marked genus *Homo*, and apparently to a single species, at present represented by the American Indian.

(To be Continued.)

[NOTE.—Through an error, the closing paragraphs of this address were added to the Fifth Paper. They will appear hereafter in their proper place, and with the explanation that the Sixth Paper should follow the paragraph, page 163, devoted to Proboscidians (closing with the sentence: "The last of the American Mastodons and Elephants became extinct in the Post-Tertiary); we hope that Prof. Marsh's able address may lose none of its value.—ED.]

**SPLIT BAMBOO RODS.**

To Our Customers and the Public: In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
—[Ado. Manufacturers, 65 Fulton Street, N. Y.

—The site of the petrified forest of California is about 1,000 feet above the sea level, and lies in the same trend with the Geysers, Mount St. Helena, and the thermal springs of Calistoga. A recent visitor says that, geologically, it is one vast lava bed, in which the trees lie as they were thrown, probably thousands of years ago, by some convulsion of nature. The trees are in fragments, many of which have been converted into charcoal, others into lignite, and others into beautiful specimens of jet. Where the heart of the tree had decayed, the cavity is filled with opal, a form of lustrous uncrystallized silica containing water. Chalcedony, another form of the silica, but clear and limpid, is found in other cavities. No top has been petrified, and only here and there a root.

—A remarkable bargain in Rifles! Messrs. Turner & Ross, the well known dealers, offer a big bargain in breech-loading rifles for \$5 00. The guns are brain new and are exceptional bargains.—[Ado.

\* Delivered before the American Association for the Advancement of Science, at Nashville, Tenn., Aug 31, 1877.

### Fish Culture.

#### OPERATIONS OF THE McCLOUD RIVER (CAL.) FISH HATCHING ESTABLISHMENT.

LIVINGSTON STONE, Esq., the indefatigable fish culturist, who is now engaged in establishing a government hatchery on one of the tributaries of the Columbia River, in Oregon, sends us from Oregon City, date of Sept. 28, a list of the applications made this season for salmon eggs from the McCloud River station of the United States Fish Commission in California. The list will be examined with much interest, as most of the applicants are the leading fish culturists of America. Moreover, the requirements come from no less than nineteen different States, and include not only those of the extreme East and West, and the intermediate ones lying along the same latitude, but also those of several Southern States, showing how widely the active interest in this important subject is disseminated, as well as the fact that salmon of this variety can be successfully propagated in latitudes south of where it had generally been supposed they would thrive. Applications also come from six foreign countries, which is an additional fact of significance and popular interest. The successful stocking of European and sub-tropical rivers with this delicious variety of fish, which is entirely new to those waters, will be a result demanding much congratulation. The experiments have so far been attended with a reasonable degree of success, and a requisition for so large a number of eggs does not imply a renewal of the same, but a wider extension of operations. On Saturday the steamer Mosel took out the allotment (300,000) for Europe; they are under charge of Mr. Fred Mather. The total number of eggs asked for by all the applicants (nearly eight millions) is simply enormous, and shows the immense capacity of the McCloud breeding establishment, and the credit belonging to Livingston Stone and the U. S. Fishery Commission in bringing it to such brilliant and useful proportions:

#### APPLICATIONS FOR SALMON EGGS FROM THE McCLOUD RIVER STATION OF THE UNITED STATES FISH COMMISSION, CALIFORNIA:

State.	Applicants.	No. and Value.	Destination.
California.	H. B. K. de la Cruz.	600,000	San Francisco Bay.
Idaho.	W. D. B. Adams.	75,000	Boise, Idaho.
Illinois.	W. D. B. Adams.	100,000	Chicago, Ill.
Indiana.	Boyd's Fishing Club.	100,000	Indianapolis, Ind.
Iowa.	R. E. Shaw.	100,000	Des Moines, Ia.
Kansas.	D. B. Long.	100,000	Topeka, Kan.
Kentucky.	Industrial Exhibition.	100,000	Cincinnati, Ky.
Massachusetts.	E. A. Brackett.	800,000	Boston, Mass.
Michigan.	R. B. Ferguson.	600,000	Lansing, Mich.
Minnesota.	G. C. Swamy.	800,000	St. Paul, Minn.
Missouri.	George H. Jerome.	800,000	St. Louis, Mo.
Montana.	R. H. Rosevelt.	200,000	Helena, Mont.
New York.	H. H. Porter.	900,000	Albany, N. Y.
New Hampshire.	Samuel Wheeler.	100,000	Manchester, N. H.
Ohio.	Robert D. Butler.	400,000	Cincinnati, Ohio.
Pennsylvania.	Jas. Duffy.	500,000	Philadelphia, Pa.
Virginia.	A. Mosier.	100,000	Richmond, Va.
Wisconsin.	N. K. Forbank.	300,000	Madison, Wis.
Washington.	Wm. R. Reed.	150,000	Olympia, Wash.
Utah.	L. I. Peterson.	175,000	Salt Lake City, Utah.
North Carolina.	Government.	500,000	Wilmington, N. C.
Pennsylvania.	Government.	500,000	Harrisburg, Pa.
Germany.	Mr. von Behr.	50,000	Berlin, Germany.
Canada.	Minister of Marine and Fisheries.	1,000,000	Ottawa, Canada.
Caribbean.	Sir Samuel Wilson.	50,000	St. John's, N. B.
New Zealand.	Colonial Sec'y Wellington.	500,000	Wellington, N. Z.
Total.		7,350,000	

### Natural History.

#### ANOTHER GIANT CEPHALOPOD.

ST. JOHN'S, NEWFOUNDLAND, October 8, 1877.

MANY of the readers of FOREST AND STREAM may remember that in 1873 I published in the columns of that periodical an account of a gigantic cuttlefish, of which I was fortunate enough to obtain possession. This was the only perfect specimen ever obtained of this extraordinary monster of the deep, the existence of which was previously regarded as fabulous. Its fame is now world-wide. No one has done so much to make known this new species of giant cephalopods as Professor Verrill of Yale College, whose papers on the subject appeared in the *American Naturalist*, the *American Journal of Science and Arts*, and other periodicals. Mr. Frank Buckland has published a very full account of my specimen in his charming "Log-Book of a Fisherman," page 211. In his splendid fish museum at South Kensington, he has placed a wooden model "painted to life, and the exact dimensions of this, the largest cuttlefish that has been captured and brought to public notice." The London Stereoscopic Company has published photographs of it, copied from those I had taken here, and which you published in FOREST AND STREAM. Mr. Saville Kent, one of the most eminent of English zoologists, in an elaborate article in the *Popular Science Review*, has proposed to name the new species after me, though many may regard it as a questionable honor to go down to posterity on the back of a giant cephalopod. The press of America and Britain has given a wide publicity to my accounts of it, and these have been translated into several of the continental languages. The result has been to establish completely the existence of a gigantic species of cuttlefish, whose headquarters appear to be the waters around Newfoundland. The dimensions of the specimen of 1873 were



briefly as follows: Tentacles, 24 feet in length; eight shorter arms six feet in length and nine inches in circumference at their junction with the head; the body seven feet in length and five in circumference; the eyes were four inches in diameter. Rows of large denticulated suckers covered the inner surface of the shorter arms, while the two long tentacles had suckers only at their broadened extremities. In the middle of the central mass, from which the arms radiate, was a powerful horny beak, like that of a parrot or hawk, except that the upper jaw shuts into the lower, instead of the reverse, as in birds. Such was the famous Logic Bay specimen of 1873.

This, however, is now entirely thrown into the shade by a new arrival of much larger dimensions, which I proceed to describe. On Monday morning, Sept. 23, the attention of some fishermen was attracted to an object near the shore, in the harbor of Catalina, on the north shore of Trinity Bay. It proved to be another giant squid, still alive but much exhausted. A heavy equinoctial gale had swept the coast, and it is probable that the animal had been driven into the harbor and got aground. It is a peculiarity of these creatures that they swim backward by ejecting the water through a funnel, the reaction of the surrounding medium driving them along with damaging rapidity; and when once they touch the shore they begin to pump water from their siphons with great energy, and this forces them further and farther up the beach. In this way the animal had probably been stranded, and in its desperate efforts had become completely exhausted. When the tide ebbed it was left high and dry upon the beach, and after struggling for a time, and frantically throwing its huge arms, it expired. The fishermen who found it were advised to bring it on at once to St. John's for exhibition, and they arrived on the 24th. The news spread rapidly, and great curiosity was felt to view the illustrious stranger. Government granted the use of a large building called the Drill Shed, and on the 29th monster was stretched, "tremen-

dous still in death." Here he lay in state for three days, and crowds of astonished spectators thronged to gaze at this extraordinary "sea-vampire," as Victor Hugo names him. Loud and frequent were the expressions of amazement as group after group of visitors thronged in and gazed in wonder at the immense arms spread out, the huge head with its formidable beak, and the massive body white as a corpse. Lady visitors especially were horror-stricken at the thought of being hugged by those cold clammy arms, which grasp with a death-like tenacity, and glide swiftly round and round the victim, lashing themselves to the suckers, whose sharp-toothed edges sink in and seem to drink the very blood. No escape from the terrible slimy grasp of the devil-fish. Like live blisters the suckers eat into the flesh, and every struggles of the victim to escape only produces a tightening of the gigantic arms. The imagination can scarcely conceive anything more terrible than the picture of those corpse-like arms gliding in serpentine folds around the body of some human being, dragging him within reach of those terrible mandibles that are ready to rend and devour; while the cruel watery eyes glare ferociously and strike terror to the heart. Among the groups of spectators such comments as the following were heard: "No use to deny the existence of the sea-serpent after this—this beats him hollow!" "Begorra, thin, the man that would sup with this long-armed fellow would require a mighty long spoon—sure!" "O, the horrid brute!" No one, however, expressed disappointment, or seemed to begrudge the price of admission. Could the creature have been conveyed in a fresh state to New York, it would have made a sensation and realized a small fortune to the exhibitor.

I carefully measured the animal, and found it much larger than the Logic Bay specimen. The body is ten feet in length and close on seven feet in circumference at the thickest part, being three feet longer than the one referred to. The two long tentacles are each thirty feet in length; so that from the extremities of the long arms to the point of the tail it measures forty feet. The tentacles are slender, but tough as leather, being but five inches in circumference, which tapers to a fine point. This expansion, which is fifteen inches in length, is covered with rows of powerful suckers, the largest being an inch and a quarter in diameter, and all having a cup-like cavity, surrounded by a horny denticulated margin. A cone-shaped plug fills the cavity like a piston, capable of being drawn back and thus creating a vacuum, and giving a strong adhesive power to the suckers. Each of the eight short arms is eleven feet in length, being no less than five feet longer than those of the Logic Bay specimen; while the long tentacles exceed those of the former by six feet. The short arms are no less than seventeen inches in circumference at the point of junction with the head, and suggest the idea of enormous power, especially when each is armed with 250 suckers—in all 2,000 suckers on the short arms. Like the tentacles, they taper to a tongue-like point. The head, or central mass from which the ten arms radiate, is four and a half feet in circumference. The tail is two feet long and two feet nine inches in breadth. Unfortunately in lifting it into their vessel, the fishermen crushed the eyes, and the humors all escaped, leaving only an enveloping membrane. The socket of the eyes measures eight inches in diameter. They assume, according to the fishermen, a very ferocious expression when the animal is excited, and are of a dark blue black with an iridescent border. When taken, the color of the cuttle was a pale flesh, and, in places, a mottled red; but after death, the pigment vesicles seem to have disappeared, leaving the body and arms quite white. With a head four feet and a half in circumference, and a ten feet body to work those great arms, which are exceedingly muscular, and dart about with amazing rapidity, this beast is one of the most formidable, as it certainly is one of the most repulsive, looking of sea monsters.

The poor fishermen who were lucky enough to get hold of this "big squid" reaped a golden harvest by the exhibition, and at the close got a handsome price for the fish. I was in treaty for the monster, having been requested by Professor Baird to secure it for the Smithsonian Museum; but a speculative New Yorker got wind of it, and distanced all competitors by the high price he offered. It has gone to New York, in pickle, probably with the idea of exhibiting it. But I have doubts whether that could be done, except by putting it in alcohol. It is entirely cartilaginous, and decomposes very rapidly. I tried to preserve the first specimen in strong brine, but failed. During its exhibition here it deteriorated much, the more delicate parts shrinking and melting away, and the suckers dropping off. When placed in alcohol the shrinkage is very great. An arm in our local museum, cut from a cuttle in Conception Bay, has lost six feet of its length since being plunged in alcohol. It is greatly to be regretted that the eyes were destroyed, for a special interest attaches to them as being more complicated in structure than those of many fishes, and they are besides very large and brilliant. Mrs. Browning was correct in her reference, though probably unconsciously so, when she commended "Lord Walter's Wife," with the couplet, "But why do you go? said the lady, white both side under the eye, And her eyes were alive in their depths, as the kiskens beneath the sea blue." The "Kraken," I need hardly say, is the old mythical name for our modern giant cuttle.

Looking at this giant of the waters, so fully equipped for battle with his larger foes, and possessed of such destructive powers, one can imagine the fierce combats that must take place "when Greek meets Greek," when the Giant Cuttle locks some other monster in his great arms, and tears his foe with his formidable beak. Then again, what fearful destruction these monsters, if numerous, must cause among the small inhabitants of the deep, which they prey,

MICHIGAN.—Mr. H. M. Porter at the Pokagon hatcheries, has recently achieved success in his attempt to produce perfect eggs from salmon kept in fresh water. This has hitherto been thought impossible. Seth Green, in his report last year, asserted that salmon debarr'd from salt water never produce eggs.

Nashua, N. H., Oct. 7.—The Game and Fish Club have stocked two ponds with black bass this season, and one with and-locked salmon, which speaks well for their energy.

NOTICE TO SPORTSMEN.—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grilse and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting.

P. O. Box 1,294.—LADY, ABBEY & IMBRIE, 38 Maiden Lane,

These thirty feet arms, shooting about almost with the rapidity of lightning, will arrest the flying prey, as a cat arrests a mouse, and with even more certainty. Suppose that these giants move about in "schools" like their poor relations, the small squids, what havoc they must make among the cod fish on our fishing grounds, and what terror and destruction they must spread around. It is not impossible that they may have something to do with the failure of our fisheries, of which we have so often to complain. When the codfish suddenly disappear from some fishing-bank it is not impossible that their sudden flight in some cases at least, may be caused by an invasion of some wandering band of these vampyres of the deep. The common squid is said to deposit 40,000 eggs annually; and if these giants approach them in fecundity, there must be myriads of them in the depths of the sea. But why, then, are they so seldom seen? Since 1873 only one was found at Grand Bank, in Fortune Bay, in 1876. It must be remembered that, like the whale, they keep to the deep sea, for the most part, and only when driven in by storm or currents do they approach the land. Besides, in swimming, they do not lift their heads or bodies above the surface, their hydraulic apparatus working noiselessly in the water; so that a shoal of them might pass a ship unnoticed. They possess a tube or funnel which is connected with the bronchial or breathing organs. The expansion of the mantle admits the water; and when it has communicated its oxygen to the blood, the mantle contracts and drives the water with great force through the funnel, the jets thus expelled by their reaction, driving the animal in the opposite direction. This funnel can be so bent as to direct the jet in any direction, and thus enable it to vary the motion at will. By turning the opening of the funnel toward the tail forward motion is produced. The tail I suspect acts chiefly as a rudder, though it may also aid in locomotion.

Professor Verrill considers that the discovery of these giant cuttle fish warrants the expectation that the sea-serpent will one day cease to be fabulous as the Kraken has done. He says, "The 'pen' of our *Arcolentothus* seems to resemble that of the ancient genus *Tendopsis*, found fossil in the Jurassic formations, and contemporaneous with the huge marine Saurians, *Ichthyosaurus*, *Plesiosaurus*, etc., the sea-serpent of those ancient seas. May there not also be huge marine Saurians still living in the North Atlantic, in company with the giant squids, but not yet known to naturalists. Such a belief seems quite reasonable, when we consider how many species of great marine animals, both among cephalopods and cetaceans, are still known only from single specimens, or even mere fragments, generally obtained only by chance."

M. HARVEY.

[The monster referred to can now be seen at the Aquarium in Thirtieth street, New York, where it is on exhibition, preserved in immense tank of alcohol. The engraving which we republish to-day will not use any of its value, because it was first brought to notice in 1873. It is the one referred to in the body of Mr. Harvey's letter herewith published.—Ed.]

HON. J. D. CATON'S DOMESTICATED WILD TURKEYS (*Meleagris galopavo*).

OF late years the Hon. J. D. Caton, of Ottawa, Illinois, has devoted much attention to the propagation of the wild turkey, the finest game bird of America, and the finest in the world except the caperealis of Great Britain. This species of fowl is now extinct in many sections where it was once abundant, and every effort to restore it or extend its species is entitled to thankful commendation. But to propagate wild turkeys requires that they should be first domesticated to a degree. Money would be thrown away in simply capturing wild birds and letting them loose in the woods. They will "light out" in less than no time. We have tried the experiment ourselves in Blooming Grove Park, Pa., and never heard of our *protégés* after once bidding them adieu. Judge Caton, by long study, has acquired the knowledge of how to tame a wild turkey, and after he has tamed him, make him wild again. He has now on his premises at Ottawa something over one hundred. We are gratified to state that the Judge has promised to present the Blooming Grove Park with several pairs of them at any time when he may receive the shipping order, and we have no doubt that the result will be much more encouraging to the Association than the first experiment proved to be. He has also been kind enough to send directions for shipping them and caring for them, which we take the liberty to print herewith, as they may be of benefit to others who may perchance be engaged in the same laudable enterprise. He says:

"In transit, the cocks must be in separate apartments, else they are liable to kill each other, but two hens will generally go safely in an apartment. I think it will be well to select from stock well domesticated, as they will be more likely to remain around the premises, which I think they will do if carefully treated and well fed at least for a few generations till the park gets pretty well stocked, though no doubt their tendency will be to resort to the wild state. During the breeding season the hens will go to the woods till they can find dense cover and perfect seclusion, and by the time the young broods come out corn should be scattered in their supposed neighborhood, and by careful management the young ones may be considerably tamed at least for a time. After the park is well stocked they should only be allowed to be shot in remote parts, and they will learn that they are safest near the lodge."

However, breeding turkeys is not altogether so easy a job as it may seem. Sometimes a strange distemper attacks the young birds and carries off twenty per cent. of them, and does not always spare the old ones. It seems to recur periodically

at intervals of eight years, and there is no apparent cause for it, as the broods have always the same care and treatment. It seems to occur only in very dry seasons.

A RARE FISH.—On Wednesday, October tenth, Mr. Eugene C. Blackford, of Fulton Market, received from Gloucester, Mass., an unknown and curious fish, which was identified by Mr. Brevoort of the Astor Library and other scientists as an *Alepisaurus ferox*.

This is such a rarity, that even the British Museum has no specimen, and no European naturalist has ever seen one, and but two specimens have been captured in the last three centuries. On August 26th, 1679, a Dutch sea-captain on a voyage to America, caught the first specimen known, and made a rough sketch of it, an account of which, with a fac-simile cut will be found in Vol. 1 of the "Memoirs of the Long Island Historical Society" on page 69, and page 2 of the Appendix. He says: "Although we had hitherto caught no fish, one caught itself during the night. It was not only dead, but the belly was all burst open by reason of the quantity of water that had been forced in it, for the mouth was wide open with the hook and line in it. It was almost like an eel or rather a geep. It was so hideous and looked so savage that my companion inquired if it were not a sea devil. Its flesh, when it was cooked, was quite good, tasting almost like mackerel's."

The next account we have of the fish is from the pen of Reverend R. T. Lowe, A. M., in a letter addressed to the Secretary of the Royal Zoological Society, in 1833, which was also accompanied by a drawing. We quote: "In its habit, shape of body, smoothness of skin, compressed head, wide gape, and long, formidable teeth, *Alepisaurus* agrees with *Trichurus* and *Lepidopus*; but in the former of these genera, the vertical fins are wanting, and in the latter they are rudimentary only, and pectoral. *Trichurus* is also destitute of a caudal fin. In both of them, moreover, the anal fin is abnormal, and the dorsal is single. The two dorsal fins of the *Alepisaurus* are remarkable among the fishes with which it is most nearly related, and the small adipose second dorsal evidently indicates a curious relation of analogy to the salmonide among the Malacocephalyi.

"The characteristics of the genus are: compressed head, long drawn out, with wide mouth, extending back behind the eyes; teeth uniserrated, strong, some very long ones recurved; body long, thin, scaleless, as is also the head. Of the two dorsal fins, the first is high and prolonged from the neck all along the back; second, small, triangular and adipose, both ventrals and abdominals. Pectorals, elevated; tail, large, furcated, membranous, with bony branches and six or seven rays."

In his catalogue of *Acanthopterygian* fishes of the British Museum (Vol. 2, p. 860), Gunther says: "*Alepisaurus* (Lowe) has been considered as a fish most closely allied to the family of *Sphyrnidae* (baracouta), or *Trichuridae*. The similarity, however, is merely external, and its natural affinity is decidedly siurodi, *i. e.*, belonging to the catfish family. The rays of the dorsal fin are soft, composed of joints; there is a large adipose fine on the back; the ventrals are abdominal, composed of one toothed spine and nine rays. The suboperculum is absent, and the margin of the upper jaw is formed entirely by the intermaxillary bone; the maxillary bone is rudimentary, and the pyloric appendages are absent.

The specimen sent to Mr. Blackford was upward of five feet in length, the head having been sadly mutilated, the fish having been caught with a trawl. Its exact length could not be determined within two or three inches. The teeth are very curious, many being extremely long, recurved and sharp as razors, and instead of fitting in an alveolar process, were part and parcel of the jaw itself, showing no articulation whatever, but appeared to be merely projecting from the maxillary. This fish has been donated by Mr. Blackford to the Smithsonian Institution, where it now is.

—Mr. James F. Marsters is in receipt of a couple of fawns (*C. virginiana*) captured by Harry Shipman in Minnesota. They are to be sent to Stonybrook, Long Island, to Mr. Shipman's brother.

PARASITES IN THE NECK OF HARES.—A correspondent sends us an "unknown animal found in the neck of a live, healthy fat rabbit. A similar specimen was found last year." All animals have parasites, not even man being exempt. Hares usually have them in July and August, and up to the middle of September, but rarely later, and there are often two, one on either side of the neck. They do not interfere in the least with the health of the animal they inhabit, neither do they injure it for food, having no connection whatever with the flesh, but are enclosed in a sac formed between two layers of the integument. If, before the larva reach maturity the hare should die, the parasites speedily make their way out into the world, when they die also from lack of the animal heat necessary to their sustenance.

—The *New York World* suggests the name *Hippocynophidomithoichthoides Mississippianus* for a monstrosity recently discovered in the Mississippi River, and which is said to combine the head of a bull-dog and the back of a pelican with a shiny neck, a serpent-like body and tail. The H. M. travels at the rate of eight miles per hour, with its head and neck twenty feet above the waves, and giving forth terrific howls.

—Hedgehog raising is encouraged in England because they are formidable enemies to all vermin,

AGES OF DEER, AND "CASTING OF HORNS.—In "Antlers" interesting articles on "Habit of Deer" in your last issue, I see he speaks of killing those that must have been over a year old, from the fact that no "spawn spots" were visible. I have raised many fawns, but never have known one to retain its spots till six months old, and hardly ever until four months old. He says he never saw a deer that had shed its horns before February. I have an old buck that has been in my flock several years, was full grown when caught in New Hampshire, and he always drops his horns in December. Another buck now five years old that came from Ohio does not drop his horns till February. The horns cease the growth-shedding of their velvet in September. M. W. CLARK. Danville Junction, Me., Oct. 8, 1877.

ARRIVALS AT THE NEW YORK AQUARIUM FOR THE WEEK ENDING, OCT. 15, 1877.

FRESH-WATER VARIETIES.—Eels, black bass, gar-pike, white perch; cat fish seventeen pounds weight, brown cat fish, wall-eyed pike, straw-berry bass, white bass, *Pomati's auratus*.

SALT-WATER VARIETIES.—Striped bass, toad fishes, king fish, gurnards skates, lionnards and a large number of shell fishes.

Of birds there are crown pigeons from New Guinea, Sultan's chicken from Africa and South America, buzzards, and a large boa constrictor dukyrboks; the smallest kind of antelope, from South Africa, with leg as thin as a lead pencil.

Woodland, Farm and Garden.

SELECTION AND CULTIVATION OF HYACINTHS.

THERE is no better time for potting hyacinths intended for spring display than in October and November. As a matter of course, such early blooming kinds as the early white Roman, and also the single red L'Ami du Cœur, the white grand Vainqueur and the light blue Charles Dickens, together with a few early flowering scillas, tulips, crocuses and narcissi should be potted the first or second week in September, and so on till the end of that month; but for common hyacinths there is no better time than the present. Generally they are potted too early—before the bulbs have recovered from the effects of the long, close confinement during their transit from Holland, and ere they have become thoroughly matured. It often happens that early potted Hyacinths rot, owing to their being placed in contact with the soil too soon after being imported, and, after all, nothing is really gained by such early potting, except in cases where it is intended the bulbs shall be forced. We would, however, always impress on cultivators the necessity of obtaining their bulbs early from the dealers, not only because the finest bulbs are invariably selected for the earliest orders, but also because they can look better after them, preparatory to potting them, than the dealers can. Among the newer varieties there are now some very fine kinds, such as Princess Helena, Garibaldi, Howard, Kohinoor, Pellisier, Prince Albert, Victor, etc., in the pink and red classes; Blondin, Czar Peter, De Candolle, General Havelock, King of the Blues, and Sir Henry Havelock in blues, and Ida and Bird of Paradise in yellows. Among pure white flowers may be mentioned La Grandesse, a magnificent variety, Innocence and Snowball, a variety with immense bells of great substance. Some of the above bring rather high prices, and are indeed difficult to find in this but happily for those who cannot afford to purchase comparatively new hyacinths, there are many old varieties of excellent quality that can be obtained at a cheap rate, though they lack the rich and varied coloring to be found in the newer sorts. In the red class, including rose and pink flowers, there are Lord Wellington, Fabiola, Le Prophète, Norma, Princess Helena, Susanna Maria, Lord Macaulay, Robt. Steiger, etc. Among pale blue flowers may be found such well known varieties as Couronne de Cello, Grand Lilas, Orondatus, Leonidas, Van Speyk; and among the dark blues, Albini, Argus, Baron Von Tuyl, Laurens, Kostor, Minosa, Shakespeare, etc. Of white varieties, there are Alba Superbissima, Mad. Van der Hoop, Mont Blanc, Grand Vainqueur, Anna Paulowna, Elfrida, Lord Grandville, Seraphine, etc., all standard sorts; white in yellowish colored flowers, Alida Jacoba, Anna Carolina, Duc de Malakoff, Heroine, La Citronniere, etc., may always be depended upon. Hyacinths should be placed singly in six-inch pots, a little moss in each for drainage, and over it about an inch of well decayed cow manure. In a light compost of good loam, leaf mould and manure, with a liberal addition of sand, all bulbs will grow and luxuriate. Tulips, crocuses, jonquils, etc., may be planted as fancy or demand dictates. The bulbs should be about half buried, a good sprinkling of water given to settle the soil about them, and then place in a cool cellar, cold frame, or any cool place, where they can be conveniently got at in winter, and covered over to a depth of six inches or so. It sometimes happens that hyacinths are unskillfully planted, and unless some covering be laid on the surface of the pots, the bulbs, in the act of rooting, will force themselves out of the soil in consequence of its being too hard pressed at the base of the bulbs. In six weeks or two months the covering should be removed, and the bulbs placed in some cool light place or greenhouse, where they can develop their foliage in their own time. For window culture they can also be grown in glasses with water or in pots with bog moss or sphagnum, such as is used so extensively by florists, care being taken to have the roots well developed before exposing them to the light. Nine-tenths of the failures to grow hyacinths properly are due to this cause alone. When the days lengthen and the sun gains power they can be brought on into growth as far as desired, but we would again emphasize the importance of securing the early growth as strong as possible, for then is laid the foundation of a noble spike of bloom,

For Forest and Stream.

## THE POISON SUMACHS.

THE Sumachs are a useful, handsome family of trees, which we should greatly miss from our waysides, woods and rocky nooks; but it is well to note that they are also a baleful family. Chiefly natives of tropical regions, where their genera and species are abundant, they are represented in the United States by the genus *Rhus*, which is named, perhaps, from the ancient Celtic *rhudd*, red. Now, in the time of autumn leaf seeking and gathering, it is well to be warned against plucking the brilliant, handsomely-formed foliage of at least two common varieties, which are of such tempting beauty every fall, to uninformed and unwary people.

Everybody has heard that the dogwood—which is the common name for *Rhus verniculata*—is poisonous; but how few distinguish it in its native home, and mark its appearance sufficiently to avoid it when its luxuriant leaves are crimsoned?

Go to some abundant swamp, where many of our native shrubs are most fine and various, if you would easily find this poison sumach, and in such luxuriant growth that you can easily mark its whole aspect, and retain the memory wherever you may meet it again. Swampy and wet woodlands are its favorite home, but it grows upon the wood edges of roadsides, very frequently, if rather moist, and there travelers are frequently tempted to pluck its glowing autumn foliage. It is a small tree or shrub of fine appearance, bearing quite a tropical air in summer, with its long, glossy, green pinnate leaves of many pairs, the leaflets from seven to thirteen, oval, and abruptly acuminate, entire. The petioles are long, roundish, smooth; the partial ones very short. It loves to cluster in clumps or groups where soil best suits it, growing ten or fifteen feet high, spreading its branches above their small trunks profusely, and contrasting richly with other foliage surrounding.

The effluvia of this shrub is a violent poison to many constitutions, producing a distressing cutaneous eruption when handled, or even approached. On others, and, perhaps, the majority, it exerts no influence. It is even said by eminent authority that the latter class may rub, chew or swallow its leaves with impunity, but perhaps we may be pardoned should we hesitate to try the experiment. The taste of the leaves is found to indicate no unusual quality, being simply herbaceous and astringent.

Another poisonous sumach, and one perhaps more frequently plucked for its variegated and reddened leaves, is the poison ivy, *R. radicans*. This is very frequently mistaken through the autumn for the beautiful and harmless Virginia creeper, *Ampelopsis quinquefolia*, which crimson so exquisitely in varying shades through late and lovely days. We all know its vigorous, shrubby vine, draping walls and fences with a network of large, brilliant leaves and berries of purple peeping from scarlet footstalks. But probably few casual observers—and such are too often autumn leaf seekers—could remember how its leaves grow. Let us count their bright divisions. They are five parted or quinate—whence its specific name—they are also called digitate, or are arranged somewhat like the fingers of the hand into the ovate leaflets, whose edges are notched, and whose tips are pointed, or acuminate. Make a note of this.

Now, to our climbing poison ivy, ascending lofty trees by throwing out myriads of thread-like rootlets (which grow quite differently from the radiating tendrils of the Virginia creeper) all along its length of gray, scaly bark, and which become nearly buried in the back of its support as it climbs on high and never wearies. But its leaves will be its sure distinction; they are thick, glassy and ternate, or in leaflets of three; ovate, smooth, with entire edges, and never serrated—the lowest rarely angular; and if a close look be given, we shall see its foliage is cut smaller than the *Ampelopsis*, while its habit differs strikingly.

Many other descriptive distinctions of the Sumach family could be noted, both interesting, useful and instructive. But will not our limited examination be sufficient to teach us how necessary is some botanical knowledge of our native trees and shrubs? A little attention to plants and flowers, as we consider their characteristics, soon becomes a delightful study, fascinating in its pursuit. The waysides, fields and forest take on a new aspect when we may single here and there some interesting or harmful shrub, some rare or lovely flower, some modest useful plant, and be sure of their place in the vegetable kingdom.

S. P. BARTLETT.

## SHEEP HUSBANDRY.

FERN BANK, Ohio.

*Friend Hallock*—In an editorial note of yours to a recent article of mine on sheep husbandry, you truly remark that the Blue Ridge Mountains are peculiarly well adapted to wool growing. You may be pleased to learn that some of the most eminent men of the South concur with you in this opinion. Col. Edward Colston, of Berkeley county, Virginia, in an address delivered at Martinsburg, makes the following statement:

The western part of our county, containing perhaps 30,000 acres, is mountainous. I have ridden there for ten miles without seeing a human habitation, and although from its abundant herbage it might sustain for its owners 20,000 head of sheep, not a single one is to be found grazing on its surface. In this region may be found also much land fit for cul-

tivation, with fine meadows and abundant water; yet all this is worthless to our community, and a dead capital to its proprietors. There is territory and grass enough here to be divided into three or four sheep walks, each sustaining from 3,000 to 4,000 sheep during the summer, with meadow and arable land enough, at a small expense, to provide amply for winter sustenance. The Hon. Andrew Stevenson, who, while U. S. Minister to the Court of St. James, made sheep husbandry, as practiced in Great Britain, a special study, and who sent home some of the finest bucks and ewes to be obtained in that country, in a letter to the late John S. Skinner, published in the "Farmers' Library," says: "Virginia has many advantages for sheep breeding not surpassed in the United States. The middle part of the State, and especially the whole range of the Southwest Mountains and Blue Ridge, afford the greatest facilities for fine sheep walks—hills covered with fine herbage, abundance of running water, and well sheltered by trees from the heat and sun of summer." In the same publication (the "Farmers' Library") I find a communication from the Hon. W. L. Goggin, then representing the District he describes in Congress, as follows: "Bedford county, in which I reside, is bounded on the south side by the Staunton River, on the north by the James River, while its western extremity, the whole length, reaches the top of the Blue Ridge. These mountains afford an unlimited range for stock, and the advantages for sheep walks (wild as is the climate, combined with the productiveness of the soil,) are nowhere equalled, it is believed, except by similar situations in the neighboring counties. . . . Ranges for sheep may be had at a very reduced price on the mountains, and where, too, could be produced all the grasses in which they delight, such as the red and white clover, the meadow fox-tail, short blue meadow grass, lucern, eye-grass, etc. These advantages, and then the beautiful clear streams which abound in all the mountain regions, invite a pastoral life. . . . Many of the mountains to their very summits are covered with the richest verdure." Of Madison and Greene counties he says: "Here, too, are abundant ranges, and the wonder is that sheep husbandry is not introduced."

I may add that the statements of these three eminent men, all of whom were practical farmers, will apply with even greater force to the Blue Ridge, as it extends southward through the two Carolinas into Georgia; but there is one remarkable and enviable peculiarity of these mountains, which, though mentioned by Mr. Jefferson in his "Notes on Virginia," seems to have escaped the notice of these gentlemen. It is that, with the commencement of the warm weather in the spring, the ridge is blessed with a sea and land breeze as regular and distinctly marked as in the West India islands. Between 9 and 10 A. M., as the eastern slope of the ridge becomes warmed by the rising sun, the air current sets in steadily toward the mountain, and as the sun declines in the West the current is reversed.

To the above I will add some observations of my own, made during a residence of many years in Rappahannock county, in the very heart of the Ridge. In Rappahannock the eastern slope of the mountain only is inhabited to any extent, the western sides are too precipitous; and this, I presume, is the case through the whole length of the chain. The mountaineers proper are mostly squatters, and their methods of cultivation are of the rudest kind. Their corn is generaly worked with the hoe, and the man who can scratch the mountain side with a bull tongue, or shovel plow is looked upon as a capitalist. But what is remarkable, is that these steep hillsides, covered with loose rock, have been in cultivation for nearly a hundred years in that most exhaustive of all crops, maize, and they still produce living crops year after year, without an interval of rest or a particle of manure; and any acre of this land when dressed with a single bushel of gypsum becomes clothed with white clover within a year of the application. But a still more remarkable fact is to be noted as regards these hills. At a certain elevation, commencing with the base of the ridge proper, and extending near to the top, they are completely exempt from the ravages of the curlew and comparatively free from the early and late frosts, at times so calamitous to the lower country. These facts, together with the geological formation of the ridge, combine to make the eastern slope of the ridge the finest fruit-growing region east of the Alleghenies. Even now, without the aid of horticultural knowledge, the apple, the pear, the quince, the peach and the plum grow as naturally as do the native oaks and chestnuts.

But the object of my first communication was to urge the spread of sheep husbandry in the old Southern States, more with a view to improve the worn out lands than to the production of wool and mutton. But the subject grows as I write, and I find myself monopolizing too much of your valuable space. Permit me to stop here with the promise to continue the subject further in your next issue, should you wish it.

F. G. S.

INDIA-RUBBER PRODUCING PLANTS.—These trees belong to the three following families—1st, Euphorbiaceae, comprising especially the genera *Hevea* and *Siphonia*, different species of which are indigenous to the warm and damp portions of Amazon basin as well as the Brazilian province of the Rio Grande. The two trees which are the most used for this purpose are the *Hevea guianensis* and the *Siphonia elastica*; 2d, Artocarpeae, a natural order to which belong the tree named *Ule* (*Castilloa elastica*) which grows in the Gulf of Mexico as far as Guayquil, and several fig trees indigenous to India, Java, and the north of Australia; 3d, Apocynae, a family in which we find representatives in the South of Brazil, Equatorial Africa, Madagascar, Malacca and Borneo. The best india-rubber is that from Para, in which country the harvest commences in the month of August, and is continued in the month of January or February. The milky juice of the *Hevea*, which is the chief source of the rubber, becomes too watery during the rainy season for being then collected; in

the fine season this juice, as soon as it runs from the incisions made in the trees, has the color and the consistency of cream; the caoutchouc proper soon becomes hardened, and separates itself so as to be suspended in an opaline liquid. It is in the evening, as a rule, that the incisions from which juice is to run are made in the trees, and it is on the following morning that persons go to collect the juice which has flowed out. The Para caoutchouc is more tenacious, purer, and more durable than other kinds; thus it is especially employed in the manufacture of articles which should unite strength with elasticity. Among the trees which yield caoutchouc of second quality, the most useful is the *Ule* (*Castilloa*), which grows in abundance in Central America, and in the western parts of South America, as far as Peru. This india-rubber tree flourishes particularly well in forests with an undergrowth of hrushwood, which are at the same time hot and damp. It arrives at its greatest perfection in the basins of Lakes Nicaragua and Managua. The juice of the *Ule* runs during the whole year, but is best in April. A tree of 50 centimetres, or nearly 20 inches in diameter, properly managed, is capable of yielding 20 gallons of juice, which gives about 25 kilograms (55 lbs) of India rubber. As a general rule, the coagulation of this milk is effected by the addition of certain vegetable juices. The caoutchouc becomes separate in the form of a brown and soft substance, with the odor of fresh cheese. In the district of Saint John, in Nicaragua, there are 600 to 800 persons engaged in drawing off the caoutchouc; about 2,000 may be reckoned in the neighborhood of Panama, where the reprehensible practice prevails of felling-trees to obtain the milky juice. The worst caoutchouc is that of Guatemala, as it is more or less mixed with resinous substances. The Guatemala india-rubber is, besides, of unequal quality; the best is whitish and the worst spongy. The south of Brazil, between 18 deg. and 16 deg. of S. latitude, produces a good caoutchouc, known under the name of Pernambuco rubber, which is derived from several species of the *Hancornia*. These trees, about the size of our apple trees, have pedunc branches with narrow leaves, which give them the appearance of weeping willows. In Asia the principal india rubber tree is the *Ficus elastica*, which is found especially in Assam, India (on this side of the Ganges), in Java, Sumatra, and other places. This is the species which especially produces what is called the Singapore rubber; but under this name is also sold that of the *Ureola elastica*, a climbing species, which attains an immense length. To obtain the juice of this plant it is cut in logs, one end of which is heated; the caoutchouc is of very inferior quality. The Madagascar rubber, obtained from a creeping shrub, is very good, and is worth nearly as much as that of Para; this kind is especially used in France. Equatorial Africa is rich in trees and climbing shrubs which produce caoutchouc; but it is drawn from the wood and prepared so carelessly that the product is of a very bad quality. Although the trees which yield caoutchouc are very numerous and widely spread over different countries, the method of preparation is often so primitive and wasteful that there is every reason to fear that, in a not far distant future, this substance, which it would be impossible to do without, will become more and more scarce, and ultimately fail altogether. It thereby becomes a matter of the highest importance to place the preparation of india-rubber under proper regulations, strictly enforced, or to plant and cultivate young trees in place of those of spontaneous growth, which are destroyed in large quantities every year.—*Journal de la Societe d'Horticulture, France.*

CUTCH AND GAMBIE.—Cutch, or catechu, and gambier, or *Terra japonica*, are two important tanning substances—the first imported from India, and the second chiefly from Singapore. Cutch is produced by cutting up the wood of *Caesalpinia catechu* into chips, boiling them, and evaporating the fluid, so as to form an extract, which is made into blocks or lumps, and packed in bags or mats for exportation. As it appears in commerce it is a brown, somewhat resinous-looking substance, breaking with a dull fracture, and having a strong astringent taste. Its use chiefly is for tanning purposes, and it is also used in small quantities in medicine as an astringent. The quantities of this product imported in different years varies much, but in the years 1874-5, 191,891 cwt. were sent from India. Its average value when exported is said to be about \$4 per cwt. About three-fourths of the whole quantity comes from the Burmah port, and a large proportion from the forests beyond the frontier in Upper Burmah. Reserves of catechu-producing forest have been formed in Pegu, but outside these reserves the destruction of these trees goes on unchecked as before. From the fact that the demand for cutch is increasing, and from the certainty of a decrease in the supply from beyond the frontier, it is urgently necessary to demarcate extensive tracts of catechu-producing forest in Burmah, so that a permanent supply of the article may be insured. The tree is stated to grow in all parts of India proper, from the Indus in the Punjab to Ceylon, and cutch is manufactured in many places in South and Central India, and in the sub-Himalayan forests, as far north as the Ganges, but not much of the cutch produced in India proper is exported. Gambier is a very similar product to catechu, having much the same appearance, and being used likewise for tanning and dyeing. It is produced by boiling the young shoots of *Uncaria gambier*, a large climbing shrub with hard woody hooks, or recurved spines. It is cultivated largely in the Straits of Malacca, the product, gambier, fetching about the same price in the English market as catechu. Considering the outcry that has been made lately on the scarcity of tanning materials it is satisfactory to know that in India the more general cultivation of the *Caesalpinia catechu* for the purpose of furnishing increased and continued supplies of catechu is occupying some attention.—*Gardener's Chronicle, London.*

The Philadelphia Academy of Natural Sciences have been discussing the advantages of promoting the growth of the lacquer tree in this country. The varnish obtained from this tree in Japan is used for the beautiful lacquer-work of that country. The tree is of the *Rhus* family, and the varnish when new is poisonous, causing a rash. Dr. Thomas mentioned an American family all of whom were poisoned by some newly lacquered furniture sent from Japan. Prof. Rothrock told a plain unvarnished tale of an instance where a full company of soldiers was sent to Cape Cod to drill, and ninety-five per cent of them were poisoned by a plant of the *Rhus* kind, probably poison sumach.

A HUGE FOXGLOVE.—*Ferrisburgh, Vt., Oct. 9.*—Found a "puff-ball" yesterday, and although I am not in favor of puffing up the products of "old Vermont," I must send you dimensions, namely: circumference, 58 inches; weight, 29 pounds. Perhaps this is not a sporting item, but game is so scarce this fall, we have to take up with a good many curious substances.

VERD MONT.

**FORESTS AND RAINFALL.**—The relation between woodlands and rainfall and other climatic conditions has of late been the subject of much dogmatic theorizing. A comparison of maps in Walker's "Statistical Atlas of the United States" shows that the forests of Washington Territory and in regions having an annual rainfall of sixty inches and upward. The magnificent forests found from Minnesota to Maine have a rainfall precisely identical with that of the nearly treeless prairies which extend westward from Chicago, viz., from twenty-eight to forty inches. The northern part of the Michigan Peninsula, with its heavy timber, is marked with precisely the same rainfall as large portions of Southern Minnesota, lying in the same latitudes, and nearly treeless.

**FINE SPECIMENS.**—It is always a pleasure to notice, and more particularly to receive, anything in our way really superior. We therefore wish to notice an exceedingly fine and well grown cockscomb from Mr. Segnitz, gardener to C. F. Erhart, Esq., Brooklyn, measuring thirty-one inches in circumference, and from Mr. J. Coupland, 161 Pierrepont street, Brooklyn, two magnificent specimens of the Late Melocoton Peach, weighing together one and a quarter pounds. This is a very fine late peach, though in unfavorable seasons inclined to be rather acid. It is a noble looking peach, however, on the table; and a few trees of it ought to be grown by all who can find room for late varieties.

**SYMPHYTUM OFFICINALE VARIEGATUM.**—This is a very strikingly beautiful variegated variety of the old and well-known Coughrey. Its large lanceolate leaves are broadly and distinctly marked with creamy white. It is a very effective plant for planting in mixed borders, and is no less so in ribbon borders; indeed it is one of our very best plants for this purpose, keeping its variegation till frost comes. It is not nearly so well known as it ought to be.

**FALL FLOWERING HERBACEOUS PLANTS.**—Many of our autumn-flowering herbaceous plants are now in full beauty, and are well deserving of more attention than they generally receive. At Messrs. Veitch & Son's, New Haven, we lately saw a plant of *Helianthus orgyalis*, a native of Kansas, about eight feet high, every stem being clothed with its graceful recurved leaves, and the whole plant covered with its graceful golden yellow blossoms. In the setting sun it appeared one of the most lovely plants imaginable. Numbers of *Asters* are now also in flower, as is also the beautiful and effective *Anemone japonica*, which, beautiful as it is, is greatly excelled in size of flower, height and robustness of growth by its compeers, *A. japonica alba*, and *japonica intermedia*. These also do well in pots, giving abundance of flowers all through early winter, and seems to have been specially designed to gratify the modern passion for variety in cut flowers.

## The Kennel.

**TO CORRESPONDENTS.**—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguous to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

**CUPID.**—Mr. Chas. H. Raymond, of Morristown, New Jersey, whom every one knows as the importer of many of the finest setters in this country, has again shown his appreciation of the efforts of his friend, Capt. C. D. Viele, 10th U. S. Cavalry, to introduce prize sporting dogs into the State of Texas, where his regiment is stationed, by presenting him with that splendid half Laverack dog Cupid, by Pride of the Border, out of Horace Smith's Fanny. The dog is a trio color and two years and a half old—black, white and tan. It will be remembered that Mr. Raymond last Spring presented to Capt. Viele some of his finest stock to take to Texas, which was duly recorded in this journal. Capt. Viele is about to close his leave of absence, and will return to his regiment on the Mexican frontier next week, from which we expect to hear a good record in regulating the difficulties on the Rio Grande. Capt. Viele is a nephew of Gen'l. Egbert L. Viele.

**DOG PORTRAITS.**—Mr. P. H. Morris has placed on exhibition in our office, a handsome oil painting of his champion native setter Lark. It was painted by Mr. E. Sanguinetti, of 28 West 22d street, and is a truly life-like portrait of this magnificent animal, so well known as the peer of the "blue bloods." The artist has taken "Lark upon a point," as the subject of his painting, and has produced a work of art which challenges criticism, every feature being distinct, and totally devoid of that stiffness so common in animal portraiture.

**THE LURCHER.**—The Lurcher is almost, or entirely, unknown upon the American continent, and in England is an animal of considerable ill repute, which has been obtained entirely through the fact that it is seldom seen except as the companion of poachers and other disreputable characters. This is a matter of considerable regret, for the animal is by no means unhandsome in appearance, and is eminent for speed, scent and intelligence. A cross between the greyhound and collie, he combines all the excellent qualities of his parents,

even excelling them in some particulars. A lurcher is supposed to be most valuable when bred from the Scotch greyhound and Scotch colly. His sagacity is something wonderful, readily learning to obey the unspoken commands of a master, and hunting with a quietude and stealth unknown to other dogs. For this reason he is the favorite of the poacher, as he appreciates quite as fully as his master the necessity for lying concealed when foes are near, and even pioneers the way, giving him timely warning of hidden enemies. The poacher seldom owns any one dog long, for the game keeper is the sworn foe of the lurcher, and is sure to shoot him at the first opportunity. That punishment generally falls on the wrong shoulders is proverbially true, and holds good in this instance; for the poor dog, with perfect self abnegation to the will of his master, is but doing his duty when engaged in capturing or marking game, and should not, by right, be subjected to so severe a penalty for obeying the orders received. Yet there is some excuse, for so admirably is the animal adapted for the pursuit and capture of game, that with his assistance a single poacher is able to secure twice or thrice as much as could any two men unaided by dogs.

Destructive of all game, whether of fur or feather, the lurcher is especially obnoxious in the rabbit warren, or in any localities where hares abound. Its extremely acute olfactory powers and great speed enable it to discern its prey at long distances, and to pounce upon hare or rabbit before it can by any possibility shelter itself. As a retriever, too, it is unexcelled, bringing its prey as soon as caught to the hand of the master. Even birds are sometimes caught by this crafty and agile animal.

If, as sometimes happens, this animal develops an unexpected taste for mutton, he becomes an intolerable nuisance to the farmer, as it devotes its whole time and energy to the pursuit of the flocks, committing sad havoc among them.

As the lurcher causes such suspicion in the mind of the game-keeper, owners of these dogs frequently dock their tails, in order to strengthen the resemblance between them and their honorable cousins, the sheep dogs, and also to escape the tax which is levied upon all dogs used for sport. It can take upon and acquit itself with credit the character which the cropped tail is intended to indicate, keeping the sheep in order, watching the fold, or conducting them from one place to another with all the fidelity of the true sheep dog from which it sprang. It can also be entrusted with the guardianship of the house, and watches over property committed to its care with vigilance and fidelity.

There are many breeds of the lurcher, owing to the numerous dogs from which the parentage is formed. As before remarked, the greyhound and sheep dog are the original progenitors, but their offspring is crossed with various other races in order to obtain the desired qualifications. Thus the greyhound is used on account of its swiftness of foot and silent tongue, the sheep dog for its hardiness, sagacity and readiness to obey commands. The spaniel and setter too are often made to take part in the pedigree in order to give its well known predilection for hunting game, and the hound is sometimes employed for a similar purpose. Yet in all these crossings the greyhound must morally predominate, although its form is barely to be traced under the rough lineaments of the lurcher.

**A RARE DOG.**—Our friend E. D. Swasey, of Covington, Ky., has received a pup of the famous breed known as the St. Walert Scotch stag hound. It is a very rare specimen, about four feet high, and is a gift from the Earl of Dundreith.

—San Francisco holds a bench show during the week commencing Oct. 29, under the auspices of the California Kennel Club. The rules of the National American Kennel Club will be followed, and premiums amounting to \$5,000 will be distributed.

—Capt. Jno. M. Taylor, of Nottoway, Virginia, will go to Europe next year, and attend the Paris Exposition, where he hopes to purchase some fine dogs for friends.

Capt. John M. Taylor of Virginia, informs us that Jno. Epps, Esq., of Nottaway, W. Va., has just purchased a couple of fine fox hound pups out of the old Higgins stock of Michlenburg, Va. This breed has invariably thrown handsome working dogs, not particularly fast, but with plenty of bone, muscle and bottom. He has named them Moody and Sankey. In color they are black, white and tanwey.

**DOG FIGHTERS CONVICTED.**—The Newark (New Jersey) Courts have found Eily Mockridge and James Coyne guilty of being engaged in a dog fight. The jury were out seven hours, and the sentence was two years in State Prison, or a fine of \$1,000. It is to be hoped that this will be a check upon the brutal amusement so common to certain localities.

**QUEENS COUNTY HOUNDS.**—The Queens county hounds met yesterday at Garden City Hotel at one o'clock. Another meet will be held at New Castle Wood at one o'clock Saturday, Oct. 20th.

**JUDGES FOR THE NASHVILLE FIELD TRIALS.**—In the county field trials which are to take place next November 12th, to which we have made frequent reference, the following capital selection of judges has been made. We endorse it unanimously: D. C. Bergenthal, Indianapolis, Ind.; Dr. Rawlings Young ("Guyon"), of Jackson, Miss.; and C. Jeff. Clarke, of St. Louis.

## Sea and River Fishing.

FISH IN SEASON IN OCTOBER.

Black Bass, <i>Micropterus salmoides</i> .	Weakfish, <i>Cynoscion regalis</i> .
<i>M. nigricans</i> .	Bluefish, <i>Pomatomus saltatrix</i> .
Masalonge, <i>Esox nobilior</i> .	Spanish Mackerel, <i>Cybinus maculatus</i> .
Pike or Pickerel, <i>Esox lucius</i> .	
Yellow Perch, <i>Perca flavescens</i> .	Cetra, <i>Cybinus regalis</i> .
Sea Bass, <i>Sciaenops ocellatus</i> .	Bonito, <i>Sarda pelamys</i> .
Striped Bass, <i>Roccus tinnectus</i> .	Kingfish, <i>Menticerius nebulosus</i> .
White Perch, <i>Morone americana</i> .	

**FISH IN MARKET.**—Large quantities of fish from the Great Lakes. Bluefish are heading southward, and will soon disappear from our waters.

Our quotations are as follows: Striped Bass, 18 to 20 cents per pound; smelts, 18 cents; bluefish, 10 to 12 cents; salmon, frozen, 30 cents; mackerel, 12 to 25 cents; white perch, 15 cents; weakfish, 12 cents; Spanish mackerel, 30 cents; green turtle, 15 cents; terrapin, \$15; frost fish, 8 cents; halibut, 15 cents; haddock, 8 cents; king-fish, 30 cents; codfish, 8 cents; black-fish, 10 to 15 cents; native herrings, 6 cents; flounders, 6 to 10 cents; porgies, 10 cents; sea bass, 18 cents; cels, 15 cents; lobsters, 10 to 12 cents; scallops, \$1.25 per gal.; soft clams, 30 to 60 cents per 100; salmon trout, 18 cents; black bass, 15 cents; sheephead, 25 cents; whitefish, 18 cents; pickerel, 18 cents; yellow perch, 10 cents; hard shell crabs, \$3 per 100; soft crabs, \$1.50 per dozen; frogs, 45 cents per pound.

**MOVEMENTS OF THE FISHING FLEET.**—The weather has been unfavorable, most of the time for the past week, for fishing operations or fish curing, and the market is substantially without change. The Shore mackereling fleet are mostly off Cape Cod, taking a few barrels daily when the weather will allow, but the season will soon close, with a very light stock on the market. There have been 65 fishing arrivals at this port since our last issue—24 from the Banks, with 960,000 lbs. codfish and 550,000 lbs. halibut, 23 from Georges, with 320,000 lbs. codfish, 4 from the Bay St. Lawrence with 750 bbls. mackerel, and 14 from Shore fishing trips.—*Cape Ann Advertiser*, Oct. 12.

**NEW YORK—Schenectady, Oct. 13.**—Black bass fishing still fine. Parties are coming in with strings of from thirty to forty; this is about the average day's catch. Eels are also caught in large numbers in the Alpeans Creek, a small creek about two miles below this city. Mr. J. White came in this morning with a string of twenty, the largest weighing eight pounds. This is the largest eel ever caught in this vicinity. C. W.

**North Bay, Oct. 12.**—Fishing is better now than at any previous time this season.

**Glens Falls, N. Y.**—I send you a photograph of two bass caught in Long Pond, August 1st, 1877. The largest was eighteen and one half inches around the body, twenty-four long, seven broad and three and one-fourth thick; weighed seven pounds and fourteen ounces. The mouth opened three inches. This is the largest bass ever caught in Warren County. The other weighed six pounds and four ounces. On dressing, the stomachs of both fish were empty. How is this for high? M. H. C.

[These were certainly very large bass. The largest ever caught in Lake George, from which Long Pond was stocked eleven years ago, weighed just one pound less than the largest of the above.—Ed.]

**PENNSYLVANIA—Norristown, Oct. 10.**—Trolling for bass is the favorite amusement here now, the late freshets having cleared the river of grass. Y.

**Sunbury, Oct. 12.**—Bass, sunfish and pike-perch fishing improves as the cold weather comes on.

**Harrisburg, Oct. 10.**—Bass fishing is excellent at McCormick's Island. Several of our fishermen have made good catches at the head of the island.

**Muncy, Oct. 16.**—Bass fishing at the dam affords abundant returns.

**Hummels'own, Oct. 14.**—Large and young bass are rewarding anglers who visit the Swatara.

**WEST VIRGINIA—Berkeley Springs, Oct. 15.**—I have noticed while reading the FOREST AND STREAM, that some of your anglers are not very successful in taking bass in the Potomac.

I am not able to say much about the fish below Hancock, only from there up to Dam No. 6. I went over to the Dam the 10th of July, and caught 16 by dinner time, averaging 1 1/2 lbs. One fellow weighing over two pounds, on being cleaned, was found to contain something unusually hard in its maw, which had the appearance of a chicken's gizzard, but on pressing it, it appeared to be in halves. On opening it, what was our surprise to find a live turtle, 2 inches in diameter. How it ever swallowed it is a mystery.

**August 2d.** Went over to the Carapou River, a tributary of the Potomac, and camped out all night, so that we might get the early fishing, 6 A. M. to 2 P. M. Took 56, averaging from three-quarters to one pound. August 14, went to same place, and before 9 o'clock, had taken 40 bass, averaging one pound. This was considered the best of the season. My friend, Nat P., who was not to be outdone, went over the same ground a few days later, and captured 60. I think no one need wish for better fishing than that. I do not remember what my catches were last year, but one day I caught a good number of fair size, and one from below Dam No. 6, which weighed 4 1/2 lbs.; at another time one that turned the scales at 5 1/2 lbs. Visitors at these springs always find good fishing, even in early summer. Our favorite bait is a minnow. J.P.

**FLORIDA—St. Augustine, Oct. 10.**—Fine large trout are caught from off the sea wall.

**LOUISIANA—New Orleans, Oct. 11.**—Green trout fishing is good at Chef Menteur and Lookout Stations. Large numbers of striped bass and sheepheads are caught in Lake Pontchartrain in the vicinity of Mandeville. Fishing cruises to the Chandeleur Islands are now in order, and the sport there is magnificent.

**MICHIGAN—Detroit, Oct. 13.**—At St. Clair flats, Tuesday last, A. C. and Thomas McGraw caught thirty black bass.

averaging four pounds. Same day Judge Rand, of Indianapolis, made a string of twenty. Wednesday Judge Rand caught twenty-three, and on Thursday caught twenty-six.

PIPER, Nassau St.—The double cut on one of our advertising pages, to which you refer as having seen in our paper last week, appears also this week.

New Publications.

ANTELOPE AND DEER OF AMERICA.—This is the title of a new work, edited by Judge J. D. Caton, LL. D., of Ottawa, Illinois.

"Has a deciduous hollow horn which envelops a persistent core, which is a process of the skull, like the core of the persistent horns of other ruminants.

Much light is also thrown upon the habits of the animal, and its capacity for domestication as observed in the author's parks; and we are told of the faculty it possesses of weeping when in affliction.

Of the deer, eight distinct and well-defined species are enumerated, viz.: The moose (Cervus alces), the wapiti (C. canadensis), woodland, and Arctic caribou (C. tarandus and C. tarandus arcticus), mule deer (C. macrotis), Columbia black tail (C. columbianus), the common deer (C. virginianus), and the Acapulco variety (C. acapulco).

Of the moose and caribou, Mr. Caton derives his information from the observations of others, notably the interesting work of Capt. Campbell Barclay; but of the remaining varieties he speaks from careful personal study of live specimens observed in his own grounds.

Although the Lapps have long practiced castration of their reindeer used for draught purposes, no appreciable effect of the operation on the antlers seems to have been noticed by them; but in numerous instances we are led to believe they shed and renew their antlers annually, the same as the perfect animal.

Much valuable information has been put forth by Mr. Caton on the subject of hybridity of deer, and he is inclined to the belief that there are hardly sufficient differences between the wapiti and the stag to justify their being acknowledged as different species.

The volume touches with an account of the diseases peculiar to the cervine race, the methods of hunting, peculiarities of the flesh of each species, and the characteristics of their respective skins.

—Adulteration in wine is a minor evil, since comparatively few drink wine. But adulteration in tea and coffee is more dangerous, and a similar fraud in soap a positive sin.

ENGLAND'S WHITE WHALE.—The whale which was a short time ago transported from the Coney Island Aquarium, New York, to the Zoological Gardens, London, died there three days after being placed in the tank.

Yachting and Boating.

HIGH WATER FOR THE WEEK.

Table with columns: Date, Boston, New York, Charleston. Rows: Oct. 19, Oct. 20, Oct. 21, Oct. 22, Oct. 23, Oct. 24, Oct. 25.

ERRORS.—In the article that appeared in a late number entitled "A Cruise Around Nantucket," are the following errors: For "Tom Nevero Head" substitute Tom 'Never's Head; for "Tockennuck," Tuckernuck; for "Sinsconsett," Siasconset.

DORCHESTER YACHT CLUB.—Dorchester, Mass., Oct. 13.—The deep water regatta was sailed over a course of 21 miles. The summary is:

Table with columns: Name, Owner, Length, Act. Time, Cor. Time. Rows: Mist, Hermes, Breeze, Shadow, Wayward, Violet.

Table with columns: Name, Owner, Length, Act. Time, Cor. Time. Rows: Sunbeam, Gaul, Unknown, White Wing.

QUINCY YACHT CLUB.—Off Mear's Hotel, Oct. 13.—The closing regatta of the season was sailed for gold prizes, over a course of — miles. The summary is:

Table with columns: Name, Owner, Length, Act. Time, Cor. Time. Rows: Foily, Secret, Nattie, Elna, Psyche, Wildfire, Imp, Dandelion, Elmer, Annie, Red Lion.

METROPOLITAN AMATEUR REGATTA.—The first annual regatta of the Metropolitan Association of Amateur Oarsmen, came off on the Kill Von Kull course yesterday.

Six-oared gigs—Argonauta R A, Bergen Point, N J—CB Greene, W T Taylor, R V R Schuyler, C E Dunbar, Edward Smith, Walter Man, B M Denton (cox). Dauntless R G, New York—F Gillelan, C B Knapp, H W Walter, H W Peckwell, W C Demarest, D Roach, W M Andrus (cox).

Four-oared gigs—Carman B A, N Y—V G Audubon, D De Long, A B Wilson, I Mangam, H A S Martin (cox). Vesper B C, Staten Island—H S Pratt, I O Henderson, T H Pratt, C G Dedrickson, J W Edwards (cox). Nereid B C, Brooklyn—J C Bergen, E T Nicholson, W Febr, Jos P Earle, J C Egeron (cox).

Four-oared shells—Argonauta—Walter Man, Ed Smith, R V R Schuyler, C E Dunbar, Columbia College B C, N Y—E E Sage, R B Colgate, C S Boyd, J T Goodwin.

Pair-oared shells—Atalanta B C, N Y—John E Eunist, W S Downs. Nautilus B C, N Y—Wm Walsh, Fred G Levien.

Single-scull, senior—Frition B C, Newark, N J—George W Lee, Vesper B C, Yonkers, N Y—Thomas Fearon.

Single-scull, junior—Nereid—Jos P Earle. Nautilus—Wm Childs. Neptune, Staten Island—F L Bodowald. Argonauta—W T Taylor. Nassau, N Y—Walter S Wilson.

We went to press before the races were rowed, and are therefore obliged to defer the particulars until our next issue.

ANALOSTON BOAT CLUB.—Washington, Oct. 13.—The fall regatta was rowed over the usual one and one-half mile course.

The race for the president's medal was rowed by the shells Philadelphia, manned by Postal, Maunder, Robertson and Page; and the America, whose crew were Whiting, Pairs, Marshall and Campbell. The former won in 10m 5s.

The race between the shells America, manned by Mosher, Douglass, Wyman and McKenny, and the gig Ganymede, manned by Jones, Maddox, Page, Simmons, H McKenny, Slausbury and Burdette, was won by the Ganymede in 10m 40s.

The working-boat race, between Marshall and Postal and Page and Robertson, was won by the former in 11m 3s.

The race between the eight-oared barge, Falcon, and the ten-oared barge, Amiotstan, was won by the latter in 11m 27s.

YALE COLLEGE, Lake Saltonstall, Oct. 12.—The fall regatta of Yale, which was rowed on Lake Saltonstall, Oct. 13, opened with a barge race of two miles, with a turn, which was won by the class of '79, in 12m. 1s. '78, second; '80, third.

The quarter-mile canoe race was won by A. A. Eddy and H. Livingston in 3m. The pair-oared race of one mile, with a turn, was won by H. Livingston and B. S. Keater in 8m. 2 1/2 s. The barge race between first and second divisions of the senior class, one mile, was won by the former in 6m. 5 1/2 s. The single scull race, two miles and a turn, was easily won by E. P. Livingston, in 14m. 42 1/2 s.

CORNELL'S FALL REGATTA.—The fall regatta of the Cornell navy was rowed on Cayuga Lake, Oct. 13 over a course two miles straight away. The six-oared boat races between the classes for the Cluck cup and the University championship was won by the class of '78 in 13m 48s; '79 second, 80 third.

stroke. The race was won by '80, who went over the course of one mile and a half in 7m 50s.

WESLEYAN FALL REGATTA.—Middletown, Conn., Oct. 13.—The class crews were: '78—E A Sumner, A Kynett, B A Rich, F Ingraham, D Jack, captain, E Mead, stroke.

'79—E C Wallace, J A Wright, J M Collins, D M Vail, A Mann, Jr, E A White, stroke. '80—J A Bailey, F Greeley, M Griffin, G Plimney, W B Hill, H Warren, stroke.

The course of three miles was gone over by '78 in 20m 20s; and by '80 in 20m 80s.

SHAWMUT ROWING CLUB.—South Bay, Mass., Oct. 13.—In the annual regatta there were two races. Single-scull race for gold medal, open to all, one and one-half miles, won by S. Gookin, in 10m 12s. Amateur race, for silver medal, same distance, won by W. Backman, in 10m 35s.

VIRGINIA.—Wheeling, Oct. 13.—The single-scull race of three miles was won by Weisberger of Wheeling, in 23m 40s.

LUTHER VS. MORRIS.—The five miles race between Evan Morris and Patsy Luther, which was rowed near Pittsburg, Pa., Oct. 13, was won by Morris in 37m 4s.

DAVIS VS. TEN EYCK.—The three-mile sculling race between Michael Davis, of Portland, and James Ten Eyck, of Peekskill, was rowed at the latter place Oct. 13. Davis won in 21m 2 1/2 s.

THE HANLON-ROSS RACE.—The five-mile sculling race between these competitors was rowed at Toronto, Oct. 15. Hanlon won easily in 38m. 9s., according to the official timekeeper, or 36m., according to timekeepers on the referee's boat.

RHYME FOR YACHTSMEN.—This is the seaman's maxim for wet weather: If the rain comes before the wind, Always let the halloo's stand; If the wind comes before the rain, Let the halliards fly amain.

—The Seneca Farm, which is in another column advertised for sale, has long been famous among the ducking shores of the Chesapeake, and is a most desirable purchase for a club.

Answers to Correspondents.

No Notice Taken of Anonymous Communications.

—A number of anonymous correspondents will understand why their queries are not answered, when they read the lines at the head of this column.

HENRY L., Portsmouth, Mich.—Who is the agent of the Rawbore Crimper? Ans. Every horse in the U. S. and Canada.

R. McC., Elizabeth N. J.—Is there anything that will repair rubber boots so as to hold? Ans. Saturated solution of pure gum in bichloride of methylene.

J. E. S., Poughkeepsie, N. Y.—What is the correct charge of powder and shot for squirrel and quail—gnn, 30 in., 12 bore, pin fire? Ans. About 3 drs. powder and 1 oz. shot.

F. G. B., Scranton, Pa.—Is there a three-barrel gun manufactured in Cortland, N. Y.? Ans. Yes, the Baker gun, with a ride under the shot barrels. See our advertising columns.

HARRY HARRIS, Brooklyn, N. Y.—How long did Ben Johnson survive his friend and patron, William Shakespeare? Ans. Twenty-one years, dying in 1637, at the age of sixty-four.

O. C. J., Leesburg, Va.—Where was the first theatre established in America, and when? Ans. The first theatre ever established in America was at Williamsburg, Va., in September 1752.

F. H. W., Mashapang, Ct.—Will you give me the address of a reliable firm that deals in wild game in N. Y. city? What is Eugene G. Blackford's address? Ans. Knapp & Van Ostrand, Washington Market, N. Y. Blackford's address is Fulton Market.

CAPT. E. F., San Antonio, Texas.—Can you recommend me to some reliable house in New York where I can obtain, already prepared, the prescription's given in "Hallow's Gazetteer?" Ans. C. H. Pleasaur & Co., 61 West Houston street, corner of Wooster.

A. S. B., and others.—Is it your opinion that the game law of Illinois so reads as to make it unlawful for a non-resident to shoot game in that State? Ans. No. The enactment plainly states that no non-resident shall kill, snare, or entrap game for the purpose of shipping out of the State.

PHARMACEUT, Falls City, Nebraska.—How can I remove indelible ink stains? Ans. Paint the spot with iodine, then soak in a solution of cyanide of potassium. When the stain has disappeared wash the fabric several times in cold water. Remember that cyanide of potassium is highly poisonous.

H., Huntington, Tenn.—Has such a feat ever been performed in America as one man shooting an apple or potato from the head of another, at the distance of forty paces, with a rifle? Ans. Mike Shaw, of Kentucky, frequently performed the feat. We have seen the statement that the Austine performed similar feats.

OPIN, Denver, Col.—I have had a dispute. Can there be five Sundays in February? Ans. Yes. There were five Sundays in the month of February, 1852, and there will be five Sundays in the same month of 1880. Such, of course, can occur only in a leap year, and then only when the first of the month falls on Sunday.

W. D. W., Philadelphia.—Will you inform me if the Steadman's flea powder advertised in your paper, is perfectly safe? Is there no danger from the dog licking his coat of the application? Ans. We will not vouch for any nostrum or remedy whose composition is unknown to us. We have never heard of any injury resulting from its use.

H. L. H., New York.—I want to get a good turnspit dog and am at a loss to know where to look for one. Can you tell me where to procure a nice one in this neighborhood? Ans. The peculiar breed of dogs known as "turnspits," are not to be had in America. They are extremely rare in Great Britain, the race being nearly extinct.

G. W. H., New York.—I am desirous of taking a day's shooting this fall, and write you to inquire of some locality of easy access, near the city, where one could go—a place that would warrant the trouble taken, in amusement if nothing else; it is immaterial what the game be. Ans. Go to Orville Wilcox's Bay View House, or Lane's, Good Ground, Long Island.

HENRY M., Port Huron, Mich.—What is the meaning of the word *Fama*, which is used so often in your paper...

W. B. L. JR., Lawtonville, South Carolina.—Please let me know if you can give me a recipe for curing mange in a dog...

F. B. P., Cleveland, O.—Will you please inform me if there is any paper published on the subject of stock raising...

G. F. PECK, Sault Ste. Marie, Mich.—Both barrels of my gun occasionally go off at once when I pull the right hand trigger...

CHILL, Polo, Ill.—Can you tell me a good receipt for Chili sauce. Ans. Two ripe tomatoes, four ripe peppers...

O. L., Anburn, N. Y.—I want to go to either St. Clair Flats or Long Point this week for ducks. Will you kindly tell me which of the two places you consider the best...

D. M. Y., Norristown, Pa.—Some weeks ago, in looking over some paper, I saw an advertisement of an appliance of some kind for copying manuscript...

J. K., Buffalo.—As the bores of double-barreled guns are farther apart at the breech than at the muzzle...

C. E. C., Hanover, Me.—How can I change a light gun stock to a dark color, nearly black? Ans. Scrape off the varnish and stain...

A. R. R., Elk Rapids, Mich.—I have a puppy nine months old that is running at the eyes, the lids being much inflamed...

E. B. P., Lakeville, Conn.—Did the Ameron Team load at the muzzle or at the breech? 2. Do they load the shell and put the ball down from the muzzle?

J. N. M., Charleston, West Va.—Will you please give me the name of some reliable work on ornithology?

PITTSBURGH.—The greatest diameter obtainable with six strips of the Malacca cane is 5-16 of an inch...

ROB ROY, New York City.—Do you know any one who has a Rob Roy canoe for sale cheap?

F. S., Boston.—I have a highly bred pointer that when he is lying down, in doors or out, trembles, or shivers...

MARFIELD & MASIE, Cincinnati, Ohio.—The Dittmar powder is all right, provided used in a certain way...

H. S., West Philadelphia.—Dog has epileptic convulsions when over excited. Ans. Place on food diet, and give fluid extract of *tritium repens*...

C. S., New York.—1. At what age is a well bred pointer dog unfit for breeding? 2. Is a dog three years of age too old to breed?

J. A. P., Williamsport, Pa.—1. Is the bass bait advertised in the F. and S. considered good? 2. Is it nearly as good as the genuine helegramite which it represents?

C. W. B., Westboro, Mass.—1. Is the Restigouche region of New Brunswick a good trapping region? 2. Is lumbering carried on about the head waters of the river?

H. A. K., Clyde, Michigan.—Can you inform me who was the inventor of the stocking-frame? Ans. William Lee, M. A., Fellow of St. John's College, Cambridge, England...

A. O., New York.—1. Which of two bullets would give the greater shock to a wild west? No. 1, 44 calibre, 200 grains, flat front...

J. H., Boston.—1. Is the sugar of lead and alum solution for waterproofing a tent detrimental to health? 2. Is it practicable to have a rifle barrel to go inside the barrel of a ten bore breech-loading shot-gun?

TAN HEEL, Wilmington, N. C.—Setter pup fourteen months old; lame in left fore-leg. Holds leg when standing, with foot barely touching the ground...

M. H. C., Clarksville, Tenn.—Our club sowed in our ponds, last fall and this spring, five bushels of wild rice...

DALTON, Pittsfield, Mass.—With a rifle-barrel-chambered for a long straight shell and patched ball, shell 2 3/8 inches long and the ball projecting an inch more—could reliable shooting at shorter ranges be depended upon by using shells of 1 1/2 or 1 inch long...

M. A. C., Brookville, Ind.—My setter dog has a wart, or something similar to the same, growing from under the left upper eye-lid...

F. V. C., Boston.—Fishing in quick waters below the dam at Ship Pond, Ellitsville, Me., last month, I caught a fish with all the colors and markings of a land-locked salmon...

J. B. C., Albany.—Please prescribe for my dog. He is nine weeks old, scratches himself a great deal and sheds a little hair he had. Sores on him, but I have used carbolic soap and he is better...

FLEAS, Brooklyn.—I have a setter pup, nine months old, that is troubled terribly with fleas. If they are killed off, they return as soon as he goes to his kennel...

GREEN, City.—Will you prescribe for my setter? Age, about four years; food, table scraps; medicine, none; eye, bright, but rather sad...

coat, hair dropping; tongue, dry; condition, quite thin, no bloating; respiration, natural; bowels, free, but have not been able to see them urine, more free than natural; appetite, variable; I cannot give temperature; kennel, has the run of the house and large yard...

J. H. P., Augusta, Me.—1. Should the bottom of a rudder for a sail-boat be on a line with the bottom of the keel? I claim that it should, but a boat builder tells me that it should be rounded off on the after edge...

G. H., Philadelphia.—I own a small cocker spaniel bitch about a year and a half old; I have fed her, since she was three months old, on Indian meal mush with liver chopped fine cooked in it...

D. K., Syracuse.—Will you please inform me in regard to a fish found in the Seneca River, known as the white bass or sheepshead. It was my fortune to take from the Seneca River, near Jordan, last Friday...

F. A. T., Pittsburgh, Pa.—My red Irish Gordon setter bitch, six months old, has had a bloody dysentery for a month, and all that I can do I cannot stop it. Nearly every passage is soft and streaked with blood...

THE WEDDAS.—Several interesting papers have been read before the scientific societies of Great Britain regarding this interesting tribe of men, inhabitants of Ceylon. The deductions to be drawn are, that the Weddas still depend upon bows and arrows for their subsistence...



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INDOLENT IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY  
**Forest and Stream Publishing Company.**

No. 111 (old No. 103) FULTON STREET, NEW YORK.

[POST OFFICE BOX 2332.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

## Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, OCTOBER 18, 1877.

## To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS,  
Business Manager.

S. H. TURKILL, Chicago,  
Western Manager.

## CALENDAR OF EVENTS FOR THE COMING WEEK.

*Friday, Oct. 19.*—Trotting: Mystic Park, Medford; Cincinnati, O. Massillon, O.; Fleetwood Park, N. Y.; Sharon, Pa. Running meetings: Nashville, Tenn.; Raleigh, N. C. Base ball: Alaska, of New York, vs. Chelsea, at Centennial Grounds; Boston vs. Cincinnati, at Cincinnati.

*Saturday, Oct. 20.*—Trotting: Fleetwood Park, N. Y.; Sharon, Pa. Base ball: Boston vs. Cincinnati, at Cincinnati; Alaska, of New York, vs. Princeton, at Centennial Grounds.

*Monday, Oct. 22.*—Running meeting at Nashville, Tenn.

*Tuesday, Oct. 23.*—Trotting: Dallas, Texas.

*Wednesday, Oct. 24.*—Trotting: Cynthiana, Ky.; Dover, N. H.; Pittsburgh, Pa. Running meeting: Baltimore, Md. Base ball: Boston vs. Picked Nine, at Boston.

*Thursday, Oct. 25.*—Trotting as above, also at Meriden, Conn. Running meeting as above.

OUR ADVERTISEMENTS.—We are constantly in receipt of queries asking if this or that advertiser or his ware is reliable. We are possessed of as fair a share of knowledge perhaps as is allotted to man here, but we have not yet become so omniscient as to know all that passes in this world, or to be personally acquainted with every man, woman or child that may have a dog, gun, patent medicine, mineral water, orange-grove, etc., to sell. While we do not willingly allow any fraudulent advertisement to appear in our columns, we can not be expected to stand as god-parents to our advertisers, therefore we may say that it is a waste of ink and paper to write us asking as to the reliability of any nostrum or patent preparation for man or beast that may appear in our columns. The very fact that any article bears the impress of secret composition is enough for the reader to judge from without invoking our aid.

—Several inquiries having been addressed to us with regard to the Southern estate, advertised for lease in our columns by "Sportsman," we are prepared to say that it is no less a place than Palmetto Island, formerly the Gibbs plantation, near Port Royal. It comprises three hundred acres, and is one of the most desirable winter resorts which we have ever had the pleasure of visiting. It affords fine wild fowl and quail shooting and good fishing, is very accessible by steamer, and used to be considered one of the finest sea-side places in the South,

## VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.

BY THE EDITOR.

OCTOBER 18th, 1877.

BRETHREN: On the 1st of August, nearly three months ago, when I reluctantly left our beloved journal in the care of those gentlemen who have since proved so capable, the midsummer sun was fervid in the West, ripening the golden grain, whose promise of abundance has been made more than good in these later days, gladdening the hearts of the long-suffering and much-grasshoppered grangers. All over the land of the Ojibewas, Winnabagos and Daotahs, (poetic license allowed by actual present occupants,) the cereal wealth lies garnered in barns, or piled in huge heaps, whose market value is \$1 per bushel, with buyers for all that is offered. And wherever the harvesters have raked, the gopher disports in the stubble and the prairie chickens come forth for their morning and evening meals. Yea, verily! and the Western sportsman is aware of the fact.

In the charming lake country of Michigan, and on the hardwood ridges of northern Wisconsin, the acorns and hazel nuts have long since shelled out from their cases, inviting the deer, squirrels and the timber grouse to the "free lunch" which the winds and the frosts have rattled down, and thither also the hunters have wended their blithsome way. There are ducks in the many lakes and sloughs, and the voice of the wild goose is heard in the fields, and overhead, going south. All through the Indian Summer, and into the grey and blustering months of the waning Autumn, until the water-courses and reservoirs are closed by ice will there be ample work for the gun, and abundant exercise for the dog. Happy the man who taketh advantage of his knowledge thereof.

The familiar apothem of the Philosopher Greeley—"Go West young man,"—has of too valuable and truthful significance to be cavalierly treated. The Western country is vast; its distances look short on paper, but they are long to travel over, and every mile traveled enlargeth a man's ideas, and increaseth his respect for his fellow men as well as for himself. When the wonderful cereals of the Kansas department of the great Centennial Exposition were displayed, the wise men of the East were astounded, and the wisdom that was in them became as naught in the stronger light of their new revelation. And yet we have tall corn in the East! So also have we game animals and birds; and the gunner goeth forth for the same, and scouring a township returneth at evening with a bag of two dozen brace, but the Western chicken shooter harnesses his two-horse team, and ranging over a hundred miles of prairie, brings home a wagon-load. [Just estimates are obtained only through comparisons.] Because the grasshoppers have ravaged portions of States at times it does not follow that they have become an engrafted and perpetual institution of the entire Western country. Maps of the United States are not made nowadays as they used to be a half century ago. The scale of miles is different. One man cannot live all over the Western country at one time any more. A single sportsman may have suffered disappointment by the scarcity of birds which the burning of the grass in springtime has destroyed, or midsummer drouth driven off to more favored places; yet the whole West should not be condemned as barren of game. Doubtless game has disappeared by various causes from localities where it once abounded; but, nevertheless, it exists in widespread abundance and in remarkable variety "all over." The woods, grass, lakes and streams are "full of it." Having myself gone through several States with the express purpose to spy out the land, every facility being afforded by the railroad and steamboat companies, I do not hesitate to repeat our frequent admonition to everybody to "go west," if with no other object than to see that new section of "our great and glorious country," and enjoy the intercourse of the high-minded and hospitable people who dwell there. If a man have health and contentment at the East, let him abide there and seek no permanent settlement elsewhere; he is most likely to find it beneath the skies of the Western sun. It is true I did not return from my expedition as full-handed as did Caleb and Joshua from Canaan; I brought no testimony of the grapes, but I did take many trout and grayling on the Jordan, and shot some game in the promised land, including one poor rabbit, the tragedy of whose death I may hereafter relate; and if our readers will only take my word for it, they may be as easily convinced that there is still some sport left in the West as the old time unbelievers were that some good could come out of Nazareth.

To reach the West are many and expeditions routes whose comforts are as numerous as their scenery is varied and charming, but of all those I have travelled, none are excelled by the grand old Pennsylvania Central, the great railway artery of the United States. It is grand in its construction, equipment and management; grand as respects the wild mountain scenery which it traverses; grand in its far-reaching connections; grand in its vast pecuniary resources, and grand in its ability to withstand stupendous losses without wincing. To the traveler its inimitable road bed is a solid and continuous assurance of safety throughout the entire length of its extended line, just as the beds of its luxurious sleeping cars are of comfort to the body worn by wear and tear of protracted journeys. In its hotel cars excellently-cooked meals are supplied at not exorbitant rates by a civil steward and well-trained colored servants. Whatever objection may be made to eating, sleeping and living in the same apartment, I feel that the advantages outbid the disadvantages; and though sometimes taking the wayside eating house by

way of a change, or when they enjoy an exceptional reputation for the excellence of their tables, I usually stick to my post, and am fed, washed, shined, dusted and tucked into my little bed by my assiduous attendant, who "gets" to know us all before the journey comes to its end. One cook, whose name I believe is White, although he is very black, (perhaps it is Wright, but this spoils the antitheses) is not only a most excellent cook, but a most patient and pains-taking person. I never spoke to him, and he may never never know his obliged admirer. Still the praise is due, and the man is worthy of the bestowal. I'll take future chances on my beefsteak being damaged by faint praise.

Possibly not one in ten of the traveling public is familiar with the construction of the hotel car, and so I may describe the vehicle briefly as a parallelogram divided into four sections by three bulkheads. One section contains a wash room, closet and steam generator. The main section is, like any other sleeper, converted into seats by day and beds at night, and is additionally supplied with adjustable tables, where meals are served. The incidental conveniences of this room are numerous and grateful. The third section takes the ribbon off of any yacht's galley for compactness and convenience. It is divided into a cook-room, pantry, wine closet and refrigerator, and can easily supply sixty or more different orders *a la carte* simultaneously. The fourth section is a smoking room, with sofa and easy chair. The fuel for the cook room is carried in a box under the car. In this very comfortable car we travel from New York to Chicago without change.

As the route of this journey includes the States of New York, New Jersey, Pennsylvania, Ohio, Indiana and Illinois, and a distance of something like 900 miles (the road claims to be 61 miles shorter than any rival route) the objects of interest along the line are very varied and numerous, embracing every sort of commercial, manufacturing, mining and agricultural interest. It begins with the salt water commerce and manu- factories of New York, Jersey City and Newark, passing over alternate salt marshes and picturesque ridges of rock into the undulating and bucolic lands of New Jersey, where the strawberry, peach and sweet potato grow in their perfection; thence across several canals, pretty rivers and carefully tilled farms, to the great seaport of Philadelphia, with the picturesque scenery of its two tributary rivers; on through a somewhat broken but most charming and fertile farming country, to Harrisburg on the beautiful Susquehanna River. Then over and through the Alleghany range, with its vast mining interests and flaming forges, to smoky Pittsburgh, where the Alleghany joins the Monongahela to form the Ohio. The intermediate section contains the wildest scenery on the route, including the famous "Horse Shoe Curve" along the face of the mountain. Dense forests cover the sides of the mountain, and invite the sportsman to seek its sequestered recesses; but we are told that the sound of the pick and trowel, and the roar of the furnaces disturb the game. Yet we know of many a place off the main line where the ruffed grouse abound, and deer can be shot without much trouble. At Pittsburgh the Eastern man obtains his first view of the Western river steamboats and barges of varied and grotesque structures. Down the Ohio the railroad follows for many miles, and leaving it at Rochester, a great railroad centre, stretches across the broad State of Ohio and into Indiana, passing through an undulating agricultural country, interspersed with lakes and occasional prairies, whose very name and appearance suggest to the Eastern man that he must be very far from home by this time. The lakes generally afford good bass fishing, and woodcock and quail can be flushed on many a farm. As I stated in a former letter this section is generally posted, but with permission of the proprietors the sportsman can often fill his bag. Passing into Indiana the prairies become more frequent, suggesting "chickens." By this time the sportsman begins to talk dog and gun freely with newly made acquaintances, and possibly does not desist until the midnight train hustles him into Fort Wayne, where he must change cars if he is bound for Northern Michigan. If his destination be central or northern Wisconsin, he can take all rail *via* Chicago and Milwaukee, or to Grand Rapids and Grand Haven *via* Grand Rapids and Indiana and Detroit and Milwaukee railroads, and there take steamer across Lake Michigan to Milwaukee, a route to which I would give summer preference, as it enables the tourists to see very much of three cities which have a deserved reputation as points of interest.

As I am bound for the northern peninsula of Michigan, to the very end of the route, I shall leave the Pennsylvania Central here at Fort Wayne. I can lie over until the early morning train, or I can take a day to see the place and hunt up the boys. There is a "sleeper" in case one prefers to go right on through by the night train.

I have already told you something of my visit at Fort Wayne over Sunday, but I have not told you how I found out the boys. I had never lain over here before, and had omitted to bring a memorandum of their names. It was an omission that occasioned me much annoyance. An inquiry at the hotel office for the sportsmen's club elicited no information, except that it had disbanded and no one seemed to know who had been members of it. I got no assistance in this direction, therefore. Hunting the daily paper through, I failed to discover one single name that was familiar, and as a last resort I slipped into the shade of a second story verandah and began to search through the town directory, page by page, alphabetically, occasionally taking a look at the pretty open square in front of me and at passing church goers, quite interested in spite of my loneliness and the midsummer heat. Accidentally

looking toward a gentleman's furnishing store, I saw a handsome orange and white setter on the doorstep. Now I have "a pretty good nose" and am staunch on "points." By the side of the dog stood a gentleman and over the door was a sign. I associated the three together at once. I did not know either, but, as the detectives say, I had a "clue," and so I walked over. I was informed by the gentleman that the dog did not belong to him, but that it was the property of the person whose name was over the door. He was waiting to see him, and if I would leave my address he would take pleasure in having it to him. I placed my card in his hand. It was a masterpiece of strategy. In less than an hour I was in the midst of good friends, and was kept busy during the remainder of my stay. The person's name was Geo. A. Fowler, who is the owner of several fine dogs, and one of the best known sportsmen in the State. To him I have given the privilege of claiming the name of "Vidocq" for his next canine acquisition in remembrance of the circumstance. Vidocq, you know, was a noted French detective, and the name is not inappropriate for a setter or pointer. Besides, it sounds well, and is easily spoken.

I carry with me many pleasant memories of my sojourn in Fort Wayne.

From that place to Grand Rapids is an easy journey, the route passing through a charming agricultural country, interspersed with lakes and attractive summer resorts. There is nothing by the wayside that seems to me worthy of note as being of especial interest to the sportsman, so I will defer what I have to say of my journey from Grand Rapids to the northern part of the State of Michigan, until I publish my next letter.

Hereafter I shall make as minute mention as need be of all the facilities afforded by the transportation companies, and of all the comforts provided by the hotels, throughout the country over which I traveled, without fear of being charged with mercenary motives, or with being bought up by the parties to whom I shall refer. It is the especial province of the sporting journals to bring the game sections of the country to the attention of sportsmen, and to make them familiar with the routes that lead to the same. Pioneer railroads in particular recognize the value of inducing sportsmen to visit the regions they penetrate, for sportsmen invariably follow the lumberman, and precede the settler. As evidence of this recognition observe the advertisements of railroad and steamboat lines that fill a page of FOREST AND STREAM. It is natural, therefore, that these companies should provide every facility for the journalist to visit and explore the regions they traverse, and they have done so in my case. The policy of our journal has always been liberal toward these lines, and so is that of these lines toward the sportsmen, and of the sportsmen in turn toward this journal. The interest of the three are to an extent mutual and reciprocal. In the matter of dog transportation, once so vexatious to all concerned, the change of attitude of the railroads within a brief period is most conspicuous; and it is fair to say that I found every line throughout my journey of over 6,000 miles most considerate toward sportsmen in all things pertaining to their own comfort, or to that of their canine companions. They have found that gentility is part of the composition of both. Ordinarily working dogs are well trained, and, therefore, well-behaved, making neither noise nor dirt. Their estimable and docile qualities are rapidly coming to notice, and for that reason are the more respected, receiving the consideration they merit; so that, really, the pains and expense bestowed upon their education by their masters inures and reacts to the benefit of the masters themselves.

In traveling long distances it is customary to place the dogs in charge of a baggage-master, brakeman or other employee, whose fidelity is assured, the owner making frequent visits of inspection to see that their comfort is looked to. But for short trips the owner usually takes chances with the dog, and travels in the baggage or express car with him. On most lines throughout the country there is usually ample room, so that no one is incommoded; but on two or three of the great main lines the accumulation of baggage is excessive, and the vans are crowded. In this case the dogs are freely admitted to the smoking cars, where they lie quietly and do not make one tithe of the dirt that most of the bipeds do who flood the floor with tobacco juice and promiscuous litter. The careful sportsman will always carry some prepared dog food in his pocket, and a tin cup, so that he may be independent, if necessary, of unwilling services or short supply in other directions.

The whole study of canine physiology and mental character is interesting, and nowhere can it be enjoyed to greater advantage than in a van crowded with aristocratic dogs. Very little wrangling is attempted, and the creature that manifests a churlish disposition receives the contempt he deserves from his fellow travelers. They are not impudent or obstreperous to strangers whom they would at home keep off from their master's premises. While appreciative of approval, they despise abject flattery, and never permit their vanity to be excited by empty attentions to the extent of climbing on a man, and plugging his shirt bosom. Any sensible notice taken of them they gratefully recognize by a mild cock of one eye, and a gentle swing of the tail, once.

Each dog generally selects his corner by a general acquiescence, and having pre-empted his claim holds it throughout the journey, subject only to his master's behests. Tumbling about of heavy cases and trunks does not disturb their equanimity. When waited upon with food or water, each is polite to his neighbor, and complacently awaits his turn, often when distressed with thirst. When permitted to take a run at a way-

station they generally do it in a sympathetic way, stretching their limbs with lively satisfaction, but not romping or stopping to swear at the village curs, which often attempt to meddle with them. If the latter become too annoying, the others quietly circle around until they reach the side of their master, where they feel secure. But, "dog-on-it!" I find I am getting to subjects that are rather beyond the scope of my letter, and so will pause here for the present. HALLOCK.

**A BIT OF A BLOW.**—We have several letters from Naval Line officers of various grades, which we confess contain very just complaints of one of a series of articles entitled "South American Reminiscences," which appeared in our issues of Sept. 20th and 27th and Oct. 4th among the miscellaneous contributions. Portions of this article were not only decidedly prejudicial to the Line of the naval service, and to the navy in general, but reopened old issues which delicacy on the part of honorable men would have prevented the slightest allusion to. The editor-in-chief, during whose absence these articles were presented, while responsible for what appears in the paper, claims some measure of grace and forbearance from those who have been injured. Personally acquainted as he is with many officers of the navy, and intimately with some; cognizant also of the personal issues to which the objectionable articles make reference; and aware that there are very many officers who are constant readers of FOREST AND STREAM, he cannot too sincerely express his regret that they should have appeared. Certainly they would not have been published had they passed under his supervision. At the same time it is just to the contributor of these articles to say that he wrote them many years ago, and thoughtlessly published them without revision or excision of the objectionable portions, which he had even forgotten had been written. As for our manuscript reader, who prepared the matter for the printer, he was not aware of their character, and is therefore blameless. We may say, too, that the author is not a Line officer, and has had no connection with the service for eight or ten years.

We do not think it advisable to print the strictures which we have received from indignant officers. Their publication would undoubtedly have the effect to make matters worse instead of better. We prefer to offer an apology as humbly as need be, and can only say that our own self-respect is increased by the evidences which they manifest of the high estimation in which this journal and its utterances are held.

**THE YELLOW FEVER AT PORT ROYAL.**—We have a statement from Mr. Charles G. Kendall, who occupies Palmetto Island, a mile and one-half from Port Royal, that the yellow fever was brought to that place by two steamers—one from Fernandina and the other a Liverpool steamer from St. Thomas. The condition of some of the premises was very filthy, and being without severage of any kind, the town was in a condition to receive the seeds of disease. On Wednesday, Oct. 10, there was said to be no sickness of any kind in the place. At Beaufort, four miles up the river, there has been no yellow fever. Up to the 8th of the month the weather had been constantly damp and rainy, presenting conditions favorable to disease. With the return of bright, pleasant weather, it is thought, all traces of sickness will disappear.

**FAST TIME ACROSS THE ATLANTIC.**—The *Human* steamship, City of Berlin, which arrived from Europe on Saturday last, made the passage in the remarkably short time of seven days, four teen hours and twelve minutes.

**PERSONAL.**—Sir Henry Halford arrives in the City Saturday, Oct. 20th, when he will sail for England, having concluded to forego his Western trip. The National Rifle Association will bid him godspeed.

On Friday our sanctum was brightened by the Hon. J. Shafto Hawks and lady, who propose to spend the cold month among the orange and palmetto groves of Florida.

**ENGLISH SPORTSMEN IN AMERICA.**—Another eminent English sportsman is coming to America soon. The Marquis of Ailsa, accompanied by Capt. Wade Brown, an old guardsman, and Capt. Boyle, intend starting the beginning of next month from England in his steam yacht on a sporting tour to Florida and Texas, and if possible will ascend the Mississippi. Any information which we possess, or any service which we can render, will be cheerfully given his lordship when desired. His Mississippi River trip would be very attractive if undertaken a month earlier, when the foliage is full on the trees of the upper stream.

#### GAME PROTECTION.

**MEETING OF THE STATE ASSOCIATION OF PENNSYLVANIA.**—The Pennsylvania State Association for the protection of game and fish met at Pittsburgh Oct. 10. It was recommended that there be but one close season for game birds, this doing away with summer woodcock shooting, and the confusion of dates now so annoying to those who wish to enforce the laws.

It was proposed, too, that the Committee on game laws also take into consideration amendments proposed at the special meeting of the association at Harrisburg: One making it unlawful to kill wild geese and ducks between the first day of April and the first day of September, and another providing for granting of search warrant where good cause exists for sup-

posing game killed out of season is concealed. It is proposed that the open season for brook trout be from April 1 to August 1; that no person shall kill any trout, cutting out the penalty for having in possession; that the close season for yellow, willow, rock or black bass shall be from January 1 to July 1, and prohibiting the use of outline; that twenty fish wardens be appointed at a salary not to exceed \$50 per annum. Another proposed new section provides that fifteen days after the times mentioned in the act, so far as relates to the close seasons for shooting and fishing, no persons shall have in their possession any of the therein mentioned game or game fish, and the possession of the same shall be *prima facie* evidence of a violation of the act.

The following officers were elected for 1877-8: President, Robert Dalzell, of Allegheny; First Vice-President, D. W. Seiler, of Harrisburg; Second, J. B. Reno, of New Brighton; Third, B. W. Richards, of Philadelphia; Fourth, F. E. Blunt, of Sharon; Recording Secretary, B. F. Dorrance, of Wilkesbarre; Corresponding Secretary, A. M. Whistler, of New Brighton; Treasurer, J. A. Harper, of Pittsburgh. The Association then adjourned to the second of June, 1878, to meet at Wilkesbarre.

**Philadelphia, Oct. 13.**—To-day, Mr. J. E. Kingsley, proprietor of the Continental Hotel, was fined \$10 for violation of the game laws, he having "quail on toast" on his bill of fare, which was served to guests after the notification that such was contrary to the statute.

**Nashua, N. H., Oct. 7.**—Grouse are being snared in this State by the thousand the law not being capable of enforcement; for, as it now reads, owners of property may use snares and devices on their own premises, or permit others to do so. WEBB.

—At the annual meeting of the Genesee Sportsmen's Club at Iroquois last week, the officers elected for the ensuing year were: President, Willett K. White; Vice-President, George H. Rudman; Secretary, J. H. Brown; Treasurer, W. A. Lyon.

**TEXAS—WACO GUN CLUB.**—This club, which was organized last spring, is composed of influential gentlemen and shows a good list of officers. The election for the ensuing year resulted as follows: Pres., C. C. McCulloch; Vice-Pres., John Thompson; Sec. and Treas., J. P. Garland; Board of Managers, W. T. Lane, W. T. Angell and S. A. Garland. The club are energetically taking action to secure proper legislation for the protection of game and for the enforcement of the existing game laws.

**PYPER HEIDSIECK.**—The appearance of the advertisement of this celebrated house in our columns, is an additional evidence of the confidence which the commercial public have in the efficacy of FOREST AND STREAM as an advertising medium. Yachtsmen and steamers fitting out for Florida will not fail to lay in a supply. There is no brand of champagne so reliable. It has withstood all tests from the beginning, and its reputation has never been dimmed by rival brands. Address John Osborn & Co., 45 Beaver street.

### The Rifle.

#### THE INTERNATIONAL TROPHY.

THE suggestion first published in our columns that a new trophy should be provided, and a new series of matches inaugurated, to fill the wish of the British riflemen for a distinctive British-American match, meets with a very emphatic approval by Sir Henry Halford in a letter written by him from Niagara Falls under date of Oct. 1. While regretting that his favorite project of affecting a change in the conditions of the Centennial Trophy match, he falls readily in with the idea of establishing a new competition in which the largest area of selection should bring out the strongest possible teams, of course it is desirable to have the new trophy fought for under the most exacting conditions, and the substitution of the 1,100 yards range for the now comparatively easy 800 yards shooting, will meet the approval of the long-range experts. Before our next issue Sir Henry's promised meeting with the Board of Directors, N. R. A., will have taken place, and we can speak more exactly on this new match proposition. In his letter the British team captain says:

I cannot write as fully as I wish on your proposal for a new prize for the international match for the championship of the world. Had it been possible, I should have preferred that the terms for shooting for the Centennial Trophy should have been so altered as to place that prize at the head of the list of prizes in the world for the future, as it was accidentally this year; but, failing such alteration, it gives me much pleasure to think that we shall have an opportunity of again meeting you in friendly rivalry at the butts.

You must not forget that I am only a single member of our Council, and that in anything I say I must not be understood in any way to commit the National Rifle Association of Great Britain and Ireland, but I will undertake to urge upon them the desirability of entering heartily into these friendly contests.

There is no doubt that this year, owing to the shortness of time, we labored under very great difficulties in getting together a team worthy to meet your riflemen, and I thoroughly appreciate your courtesy in taking such steps as will enable us to be better prepared next year.

On my return to New York I shall be glad to meet your Directors, to talk over the terms of the match, and, in the meantime, will mention what I feel sure will meet with the approval of our riflemen, viz.:

That it shall be open for us to select one team from Great Britain, Ireland, our Colonies and Dependencies, if we think fit; and that only one combined team from these be admitted to shoot for our country.

That all communications to us be made to our National

Rifle Association, or to any one whom they may appoint to receive communications.

The smaller matters, such as number of rounds and distances, etc., can be easily arranged. In fact, with the exception of the substitution of 1,100 for 800 yards, I do not see that any alterations for the better can be made, and in this substitution I quite agree, for it will give a distinctive character to the match. Believe me, yours truly.

HENRY ST. JOHN HALFORD.

The Pacific Life takes rather a sombre view of matters in the series of rifle talks it is having over the return of the Californian Rifle Team. Its last view of the situation declares:

Rifle shooting is yet in its infancy, and its future as a popular sport is menaced by some dangers. One is the ill-directed zeal of new converts, another is the ever fatal tendency of excess, and the third is professionalism. We have all seen how professionalism has paralyzed the game of base ball, and the same fate awaits any other popular sport which may be afflicted in like manner. If this rifle shooting epidemic should ever break out in the form of Champion Teams, equipped and supported at the expense of their clubs, traveling about the land to shoot for stakes or gate money, then is a noble sport forever doomed. As for the Inter-State Match its terms hereafter must be greatly modified. We want a far more valuable trophy than the insignificant bronze statue, presented by the State of New York. We want a trophy for which each State has paid its proportion of the cost. We want the match always shot in the State where it is held. We want no match at all unless at least twenty States have entered teams, and there should be but one Inter-State match in the year to be known by the name, for we see that they are already having another Inter-State match at Chicago. If every little one-horse range in the land is going to have its Inter-State match, then there is an end at once to the project of having one great event, at which the championship question shall be settled for the year.

—English opinion on the International Match comes in very slowly indeed. The London Globe says of the matter:

The Americans are disposed to credit their breech-loaders with the victory, but their majority of ninety-two points gives no more than two and three-fourths per cent of difference between the scores, and the superiority of their coaching system sufficiently accounts for this difference, without assuming that that our muzzle-loading small bores are inferior in accuracy to their finest breech-loaders. The presumption is, indeed, the other way, for while the Americans, put on their mettle, have attained an average five per cent higher than that of their already high practice scores, our marksmen using the muzzle-loader have improved at nearly double that rate, and it is believed, not unreasonably, that had the British team been able to obtain another week or two of preliminary practice "the palma" might have had to shift its quarters. Our team have evidently adopted some of the principles of Colonel Bodine's system, and to this must be attributed much of their remarkable improvement; and if, as we anticipate, the training for future great matches at Wimbledon be carried out on this system, extraordinary scores such as those made at Creedmoor will become common here.

MASSACHUSETTS—Lawrence vs. Worcester.—A rifle match between teams of the sportsmen's clubs of Lawrence and Worcester was shot Sept. 23 on the Greenwood Range, Worcester, Mass., resulting in a victory for the Worcesters. The aggregated score of the two teams was as follows:

Table with columns for LAWRENCE TEAM and WORCESTER TEAM, listing names and scores for various distances (500, 800, 1000 yards).

WILLOWBROOK RANGE, CONNECTICUT.—The contest for the Steele cup between teams from the several towns of Connecticut took place at the Willowbrook ranges on Saturday last. The cup itself, of which a cut is given above, is a gift from the firm of T. Steele & Son, the Hartford jewelers, and was presented by them a year ago, according to the conditions indicated in the following letter:

HARTFORD, CONN., Oct. 3, 1876.

Gen. Joseph R. Hawley, President:

DEAR SIR—In consideration of the interest which we take in field sports, and particularly that of rifle shooting, allow us to present to you and members of the Connecticut Rifle Association a silver cup, to be contested for in October annually by teams of four from each town in the State, and members of the association.

These teams must be composed of permanent residents of this State, and the distances shot 500, 800 and 1,000 yards.

Hoping this will stimulate the improvement of marksmanship, and a greater interest in this noble exercise in Connecticut, we remain, Yours respectfully, T. STEELE & SON.

It was fought for then and fell to Middletown this year, but three teams finally put in an appearance, though it had been supposed that the interest in rifle practice just now would have induced a greater show of marksmen. The day was a delightful one for out-door sports, although the wind was strong and flawy for excellence in long-range marksmanship. The teams which entered were from Middletown, New Britain and Hartford. The shooting began about 9:30 o'clock, General J. R. Hawley, president of the association, superintending the arrangements for the day. The captains of the three teams drew for targets, the result being as follows: Hartford, 1,000, 500, 800; Middletown, 800, 1,000, 500; New Britain, 500, 800, 1,000. The disadvantage of the draw was with the Hartfords having to go to the longest range first, and while the wind was the worst. The result was that the shooting at this range was quite poor, none of the scores excepting that of Mr. Washburn being up to the average. While the Hartfords were struggling at 1,000 yards, the Middletown team was at the 800, and the New Britain men were demoralizing the bull's-eye at 500 yards. The result of the first round was: Hartford (1,000), 136; Middletown (800), 159; New Britain (500), 189.

In the second round the Hartfords at 500 yards made a total of 185; New Britain at 800 made 168, and Middletown a 1,000 yards 129. Although the wind had moderated it was fluctuating so constantly as to cause occasional misses at 1,000 yards. At the close of this round the general opinion was that the trophy would go to New Britain. But New Britain had now to take the 1,000 yards, while Middletown went to the shortest range, and Hartford to the 800 yards. The result proved to the advantage of Hartford. New Britain found the 1,000-yards target a deceitful object, and went to pieces badly, while the Hartford men paid strict attention to business and accumulated a fine quantity of bull's-eyes at 800 yards. The result for the round was: Hartford (800), 183; New Britain (1,000), 133; Middletown (500), 180. This made the grand total: Hartford, 504; New Britain, 490; Middletown, 468, making the Hartford team the winner.



SILVER CUP

Presented to the Connecticut Rifle Association, by T. Steele & Son, Jewelers, Hartford, Conn. To be Shot for at the Willowbrook Range, annually, in October, by Teams from each Town in the State.

The individual scores, in detail are as follows:

Large table showing individual scores for Hartford, New Britain, and Middletown teams across various distances (500, 800, 1000 yards) for multiple rounds.

At the close of the match the New Britain and Middletown teams were called together by Mr. O. Vincent Coffin, and three cheers were given for the victorious Hartford team. A similar compliment was paid by all the riflemen to Messrs. T. Steele & Son, the donors of the trophy. It was announced that Mr. T. Steele had decided to give each year a special medal to the member of the winning team making the highest score. This goes this year to Mr. N. Washburn. Last year the best score was made by Mr. George O. Judd, of Wesleyan University, since deceased.

General Hawley, as president of the State Association, presented the trophy to the Hartford team. The match was witnessed by a good crowd, among whom were Mr. Frank Hyde, of the late American team; Mr. O. E. Pillard, of New Britain; Mr. S. A. Hubbard, and Mr. Steele, Jr., the donor of the prize cup. This is a massive piece of work standing about sixteen inches high; the bowl is supported by four rifles, held together by a strap containing a cartridge box. The front of the cup contains an engraved target, with a rifleman seated on each side. On the reverse is the inscription. Around the top of the cup are festoons of wreaths, surrounding spaces for the names of winners. The base is richly ornamented in repoussé style, and the arms on the side are similarly decorated, and the wreaths are also of the same elegant style of workmanship. The trophy is enclosed in an elegant case of black walnut and French walnut, the interior being lined with blue puffed satin. On the sides are silver ring handles, and on the top an engraved plate.

THE SYRACUSE MEETING.—The finish of the Sixth Division Rifle Association meeting showed some good shooting for the Duncan Badge and at long range. The atmosphere was heavy, and at intervals the wind almost reached the swiftness of a gale. Elevations never before used on the range were required, and still bullets fell short of the targets.

In the long range shooting, Mr. Warner made the leading

score, with a muzzle-loading rifle, of the pattern originated by him, and now employed by Nichols & Lefever.

The Duncan Badge Match was open to all members of the National Guard in the division, distances 200 and 500 yards. Prize, an elegant badge presented by Mr. Wm. Duncan, to be won at three regular meetings of the association, to become the property of the winner. The following are the leading scores:

Table showing leading scores for Duncan Badge Match at 200 and 500 yards, listing names like D H Ogden, Maj Fred B Chapman, M J Blakeley, etc.

This badge has been competed for four times and won by a different individual each time.

The Long-range Match was open only to residents of the Sixth Division district; distance, 800 and 1,000 yards. Following is the score:

Table showing scores for Long-range Match at 800 and 1,000 yards, listing names like Horace Warner, M J Blakeley, Lieut-Col Jas Manning, etc.

The first prize, the Crouse badge, presented by Lieut.-Col. George N. Crouse, valued at \$50, and \$15 in cash, was won by Private Horace Warner, of Company "D," Fifty first regiment. This badge must be won at three meetings to become the property of the winner.

The Dakin-Gilmore duel, when it comes off, will make an interesting short-range match. Entries limited.

THE "BALLARD" MATCH AT CREEDMOOR.—The 4th contest for the mid-range Ballard rifle was held on the National Rifle Association Range Wednesday afternoon, the 10th inst. A bright enjoyable Indian Summer's day drew a good company of competitors, and some fair scores were run up. Conditions of the match: Open to all comers; distance, 200 yards; fifteen rounds, without cleaning and without sighting shots; position, standing; weapon, any rifle within the rules; entrance fee, fifty cents. A still day favored the marksmen, and the result was soon announced in favor of Mr. E. E. Lewis, of the Flushing Rifle Club, Long Island. He used a muzzle-loading gun in the match, and Gen. Millen, one of the competitors, protested against his score upon the ground that, as the conditions governing the contest proscribed cleaning the rifles, the donor did not intend that muzzle-loading guns should be allowed, as the act of loading necessarily cleaned the gun. He also entered a protest against the score of Mr. Zettler, the winner of the second money, upon the same ground, and because he used a false stock, which, being fastened at the butt of the gun, made it possible to hold the piece more steadily. Mr. Schmerhorn, Jr., the Secretary of the National Rifle Association, received the protests, but decided that as no rule of the Association had been broken the protests be disallowed, whereupon Gen. Millen insisted that it be laid before the executive committee. The scores stood:

Table showing scores for the Ballard Match at 200 yards, listing names like E E Lewis, C G Zetter, J F Rathen, etc.

NEW MATCHES AT CREEDMOOR.—On Saturday, the 27th inst., two new matches are to be shot a Creedmoor. The first one, commencing at 2:30 p. m., will be the first competition for the "Skirmishers' badge," presented by General Duryea. The conditions are as follows: Open to members of the National Guard in uniform and all members of the National Rifle Association; weapon, any military rifle issued to the regular Army or the National Guard of any State; distances, 200 and 500 yards. A second-class, or what is known as a 500 yards target, will be used. The competitors will be formed in squads of equal strength at the rear of the 500 yards firing point, each squad being opposite a target. At the order of the commanding officer the first man of each squad will approach his firing point and load. At a signal from the same officer each of these men will advance toward his target until a second signal is given, when he will halt and fire, assuming any position except lying on his back. Loading again, the competitors will advance toward the target until a signal is given, as before, when they will halt and fire. This method will be repeated until each man has fired five shots, when they will face about and return in the same manner as provided for skirmishers "in retreat." To the maker of the highest score will be awarded the badge; to the second 15 per cent, of the

entrance money, and to the third 10 per cent. The badge will become the property of the person winning it three times.

The second match is at the Running Deer, under conditions which will quiet the grumbling against repeating rifles. The distance covered will be 100 yards; any rifle may be used, but only one shot will be allowed in a single run of the deer; entrance fee 25 cents for four runs. The highest score will take the rifle, the second score 15 per cent., and the third 10 per cent. of the entrance money.

Saturday last was a slim day at Creedmoor, the usual crowd of National Guard shooters staying in town to witness the Seventh Regiment Armory corner stone laying. The Parker gun match at 1,000 yards, thirty shots, went, under a fluctuating breeze, to young Blydenburgh on a score of 123 in the possible 150, the leading scores being,

Table with 3 columns: Name, Total, and Tl. Rows include C E Blydenburgh, Homer Fisher, J S Conlin, W M Farrow.

For the marksmen's badge there were but seven entries, scorings as follows:

Table with 3 columns: Name, 200 yards, 500 yards, Tl. Rows include W Robertson, N D Ward, A T Decker, A B Van Buren, A Anderson, James Ross, J R Grohman.

REGULARS AT THE TARGET.—The United States Engineers Battalion Rifle Club had their fifth monthly competition for the club badge on Friday, the 12th inst., at Willett's Point. Military rifles were used, at 200 and 500 yards, five rounds and two sighting shots at each range. The wind blew a gale from the northeast while the match was being shot, so that the scores suffered in consequence. Corporal Cavanaugh made the best score, counting thirty-nine out of a possible fifty points.

NEW JERSEY—Rahway, Oct. 11, 1877.—Match for gold badge, open to all comers; 50 cents entrance fee, 200 yards off hand:

Table with 3 columns: Name, 200 yards, 500 yards, Tl. Rows include J T B Collins, W M Farrow, B Vall, F Sheldon, Fred Adler, S T Rathjen, E Squier, C H Joltr, C Watson, F G Polmer, D G Urston, H Holton, W B Cloke, B Freeman.

NEW JERSEY RIFEMEN.—The first contest between the Rahway Rifle Club and the Ridgewood Sporting Club took place Thursday afternoon, the 11th inst., on the range of the former club, at Rahway, N. J., and resulted in a victory for the Rahway team. The score stood, at 10 shots per man: Rahway—F. L. Sheldon, 42; Charles Watson, 38; E. A. Vail, 43; Edward Squier, 43. Total 166. Ridgewood—G. W. Jones, 40; F. J. Walton, 39; F. M. Parker, 40; N. A. Calkins, 38. Total, 157.

The Jersey Schutz Corps held its annual meeting on Friday, Oct. 12, at 136 Newark avenue, Jersey City. The following officers were elected for the ensuing year: Captain, August Ermsich; Secretary, Fred Jacoby; Financial Secretary, John W. Schneider; Treasurer, L. A. Linan; Manager, Adolf Appel. This corps stands among the first of German shooting associations, and will no doubt make themselves felt in the grand national contest of German riflemen which takes place at Schutzen Park, Union Hill, in June next. Hereafter the Schutzen Corps will hold its meetings at Knapp's Harmonium Halle, on Hudson street, Hoboken. S. O. V.

ILLINOIS, Chicago.—The fall meeting, under the auspices of the Illinois Rifle Association, and the Dearborn Rifle Club closed on Saturday, Oct. 6. The first shoot took place Thursday, the 4th, fifteen shots each, at 800, 900 and 1,000 yards. The following are the scores of teams of four, representing Illinois, Wisconsin and Michigan—the teams of the north-west—ten shots per man at 800 and 900 yards, and fifteen at 1,000 yards.

EIGHT HUNDRED YARDS RANGE.

Table with 3 columns: Name, Illinois Team, Wisconsin Team, Michigan Team. Rows include Thompson, Stauffer, Burnham, Willard.

NINE HUNDRED YARDS RANGE.

Table with 3 columns: Name, Illinois Team, Wisconsin Team, Michigan Team. Rows include Hill, Johnston, Fielding, Welles, Fickling.

ONE THOUSAND YARDS RANGE.

Table with 3 columns: Name, Illinois Team, Wisconsin Team, Michigan Team. Rows include Hill, Johnston, Fielding, Welles, Fickling.

ONE THOUSAND YARDS RANGE.

Table with 3 columns: Name, Illinois Team, Wisconsin Team, Michigan Team. Rows include Hill, Johnston, Fielding, Welles, Fickling.

ONE THOUSAND YARDS RANGE.

Table with 3 columns: Name, Illinois Team, Wisconsin Team, Michigan Team. Rows include Hill, Johnston, Fielding, Welles, Fickling.

ONE THOUSAND YARDS RANGE.

Table with 3 columns: Name, Illinois Team, Wisconsin Team, Michigan Team. Rows include Hill, Johnston, Fielding, Welles, Fickling.

ONE THOUSAND YARDS RANGE.

Table with 3 columns: Name, Illinois Team, Wisconsin Team, Michigan Team. Rows include Hill, Johnston, Fielding, Welles, Fickling.

Friday's programme opened with a shoot for the Dearborn Club Challenge Cup; open to teams of four at long range. Three members of the Irish Rifle Association—Messrs. Miller, Rigby and Greenhill—with Frank Hyde, of the American team, formed an Irish-American team.

Sir Henry Halford with Col. Thompson and Messrs. Willard and Blackburn made up a British-American team. Wisconsin was represented by its yesterday's team, as was Michigan. The attendance was good, but the wind very unfavorable. The following is the summary:

Table with 4 columns: Name, 800 yds, 900 yds, 1,000 yds, Tl. Rows include J R Miller, Frank Hyde, W Rigby, R S Greenhill.

Table with 4 columns: Name, 800 yds, 900 yds, 1,000 yds, Tl. Rows include R S Thompson, Sir Henry Halford, O O Backner, Geo Willard.

Table with 4 columns: Name, 800 yds, 900 yds, 1,000 yds, Tl. Rows include David Hill, John Johnston, J C Welles, E Fielding.

Table with 4 columns: Name, 800 yds, 900 yds, 1,000 yds, Tl. Rows include J H Wolcott, J T Harrington, R J Halfe, S S Levy.

The third day opened with the individual competition at 1,000 yards, each man to fire twenty shots. The weather was favorable.

Table with 4 columns: Name, 800 yds, 900 yds, 1,000 yds, Tl. Rows include Frank Hyde, E Fielding, J A Salton, G H Wolcott, J A Schaffer, Sir Henry Halford, R J Halfe, John Johnston, A M Frazer.

The All-Corners Short Range Badge came next for the best individual scores, off-hand shooting at 300 yards. Each man was allowed two sightings and ten scoring shots. The following is the score:

Table with 4 columns: Name, 800 yds, 900 yds, 1,000 yds, Tl. Rows include J K Miller, Sir Henry Halford, J A Schaffer, G H Wolcott, E Fielding, S E Bliss, John Johnston, W Burnham, S B Sexon, W Burnham, S S Levy, J A Schaffer, W S Hyde, A M Frazer, J W Roberts, A G. Aiford.

The closing one of the meetings was the Military Rifle Match, off-hand shooting at two hundred yards, which resulted as follows:

Table with 4 columns: Name, 800 yds, 900 yds, 1,000 yds, Tl. Rows include Walter Burnham, J K Miller, S E Bliss, S W Burnham, Col J A Schaffer, B O Bush, Major Maxwell, Col J W Roberts, A G Aiford, Capt J H Donlin, Col Sherer, J W Roberts, J Haven.

The distribution of the prizes was made at the Palmer House Saturday night. The principal prize—the Dearborn Club Challenge Cup—was won in the second day's shooting by the Irish team, including Mr. Hyde. The prize was a large solid silver ice-bowl and salver, beautifully ornamented and inscribed. The long distance prize, won by Frank Hyde, is an elegant gold badge, beautifully ornamented. The prizes for the military shooting were very handsome. The first prize, won by Walter Burnham, was a gold badge, suitably inscribed and ornamented. The second prize to Mr. Miller, a plain gold medal, with raised work.

The prizes in the short range match were in currency, \$35, \$10, and \$5. Mr. Miller won the first, Sir Henry Halford the second, and Col. Schaffer the third. After spending a season in social enjoyment the meeting adjourned.

ROVER.

PENNSYLVANIA—Titusville, Oct. 2, 3 and 4.—Competitive shooting among the military of Western Pennsylvania. The first day was devoted entirely to practice by the teams. On the second day was shot the State of Pennsylvania match, open to teams of five from any organized military in the State; distances, 200 and 300 yards, five shots each distance. First prize, silver water cooler and goblets, value \$75; second prize, silver pitcher, value \$40. Four teams entered, making the following score:

Table with 4 columns: Name, 200 300 Tl, Oil City Grays, Oil City, Pa. Rows include F W Grant, W Hayes, E Brewer, C E Ball, J S Riddle.

The Seventh Division match was held the third day, open to teams of five from any military command in the Seventh Division of Pennsylvania; distances, 200 and 300 yards, five shots each distance. First prize, prize cup, value \$50; second prize, silver fruit dish, value \$30; third prize, silver wine cooler, value \$20. Four teams shot in this match, making the following score:

Table with 4 columns: Name, 200 300 Tl, Venango Grays, Franklin, Pa. Rows include F W Grant, W Hayes, E Brewer.

Table with 4 columns: Name, 18 20 33, H D Campbell, J S Riddle, Total, Citizens' Corps, Titusville, Pa., Oil City Grays, Oil City, Pa., H M Martin, W C Smith, H O Gray, A J Lewis, E I Roffee.

In a sweepstakes match, distance 200 yards, 3 shots each, for ten prizes, aggregating in value \$140, the winners were as follows:

Table with 4 columns: Name, 12 11 11 10 10 10 11, E Brewer, W J Hayes, C E Ball, C C Hardenburgh, R T Hardenburgh.

TRAGEDIA.

The Watertown, N. Y. Rifle Association have elected the following officers: President, W. F. Belknap; Vice-President, Capt. James R. Miller; Secretary, S. D. Andrus; Treasurer, A. L. Upham; Range Superintendent, Charles B. Fowler; Board of Directors, Col. George B. Wingate; Inspector of Rifle Practice, S. N. Y. Brig.-Gen. Winstow, Lieut. Col. A. J. Case, Lieut. Col. L. F. Phillips, Major H. D. Babbitt, Capt. W. L. Palmer, Capt. James R. Miller, W. F. Belknap, S. D. Andrus, A. L. Upham, B. B. Taggart, John R. Palmer, Charles B. Fowler.

At the Hastings Rifle Association meeting at Belleville last week, the battalion match was won by the team of the 47th Regiment of Kingston.

The class practice of the 1st and 2d division troop N. G. S. N. Y. at Creedmoor has closed for the present year, and the drill season is now on. The number of "marksmen" is greatly in excess of last year.

KENTUCKY—Louisville, Oct. 7.—At the annual election of officers for the Long Range Rifle Club, on Wednesday evening last, the following gentlemen were elected to serve the ensuing year: President, Colonel T. W. Thompson; Secretary, P. S. Campbell; Treasurer, Joe Griffith.

NEW RIFLE CLUB.—A rifle association was organized at a meeting held at 1508 Third avenue on the evening of October 12th, under the name of the "Yorkville Rifle Club." The following officers were elected: President, Mr. Sim; Secretary, Mr. Paulding; Treasurer, Mr. Duff; Supt. Range, Mr. Grohman; Janitor, Mr. Dodge. A committee was appointed to prepare and design a badge to be shot for November 6, 1877, 200 yards, Creedmoor rules to govern. Another meeting will be held Oct. 20th.

LONG BRANCH, N. J., Oct. 13.—A pigeon match was held here to-day at Hoery's Park, ten members of the Long Island shooting club pitting themselves against an equal number of the Brighton club. The former were the winners by a score of 73 to 66, after which all sat down to an elegant dinner provided by the Brighton Club for its guests, the best of feeling prevailing between the victors and vanquished.

In a private letter to a friend, Sir Henry Halford writes from Chicago that, owing to the danger of encountering Indians, he has decided not to go further West, but will return to this city in time to sail for Europe by the Italian steamship City of Berlin on Saturday, the 20th inst.

AN APPROVAL.

Seth Green has sent the subjoined letter of approval to the gentlemen named below: MESSRS. ABBEY & IMBRIE, 43 MAIDEN LANE, N. Y. MY DEAR FRIENDS—Yours of the 6th is received, with a fine gut leader. Allow me to thank you, not so much for the leader, but for letting me know where I can buy so good a quality of fine gut. If all fishermen would use finer gut they would take twice as many fish as they do on the heavy gut they use. I have the split bamboo rod I bought of you eight years ago, and it is just as good as new. I have caught thousands of fish with it, and have not been at any expense on it except to varnish it once a year. Yours, (Signed) SETH GREEN.

Game Bag and Gun.

GAME IN SEASON IN OCTOBER.

Table with 2 columns: Name, Red Deer, Caribou virginianus, Elk or wapiti, Cervus canadensis, Hares, brown and gray, Wild turkey, Meleagris gallopavo, Woodcock, Phalaropus minor, Ruffed grouse, Bonasa umbellus, Plover, Charadrius, Godwit, Rail, Rallus virginianus, Snipe and Bay Birds, Caribou, Tarandus rangifer.

"Bay birds" generally, including various species of plover, sand-piper, snipe, curlew, oyster-catcher, surf-bird, phalaropes, avocets, etc., coming under the group Linnæus or Shore Birds.

The frequent alteration of game laws makes such confusion that sportsmen are kept quite in the dark as to when shooting on various kinds of game is permitted. We therefore append the following table for reference:

Table with 4 columns: States, Pinnated Grouse, Ruffed Grouse, Quail, Woodcock. Rows include Ill., Ind., Iowa, Minn., Wis., Neb., Kans.

MASSACHUSETTS—Salem, Oct. 13.—Some snipe may be started for the next ten days on the common pastures at Newburyport. There have been some shot there this week. Birds generally wild, lying poorly to the dog. Mr. C. H. Andrews, of Salem, shot a fine yellow rail at Newburyport last Thursday. These birds are rather rare here. Matters along shore and in the bay are generally quiet at present.

NEW HAMPSHIRE—Nashua, Oct. 7.—Numbers of gray squirrels are being killed by our sportsmen. They have not been so plenty in years. Woodcock are rare birds in this section this year.

**Webster, Oct. 10.**—Ruffed grouse not at all abundant. Woodcock scarce, the largest bag yet made being ten. More pigeons this fall than before for years. Gray squirrels as hard to find and difficult to kill as usual. A few days since a friend killed an Arctic owl (*Nyctea nivea*), a bird decidedly rare in this neighborhood. Would like to have some one send in some notes concerning migratory quail and success in importing.

[Our correspondent has not read the **FOREST AND STREAM** carefully, or he would have seen full accounts of migratory quail in the U. S.—Ed.]

**CONNECTICUT—Hartford, Oct. 9.**—The first week of the shooting season has opened very propitiously, thanks to the rigid enforcement of the game laws. Many large bags have been made. Partridges are quite plenty, and large numbers are now exposed in the market. Woodcock are less numerous than usual, but wild pigeons are scoting the country in fine flocks, affording an opportunity for excellent sport. The snaring of game is now about the only drawback to sporting interests, and if some rigid measures could be enforced for its prevention, the gain in the end would be not inconsiderable. The snarer gives the game in his vicinity no chance of life, and generally captures everything that comes near his traps.

**NEW YORK—Hammond, Oct. 10.**—A competitive shoot between the sportsmen of this town resulted in the slaughter of over five thousand squirrels.

**GOOD GROUND, L. I., Oct. 16.**—There are plenty of ducks in the bay, but they bunch together in great rafts and keep out of reach. The weather is still too warm, and the first cold storm will drive them in. The chances are for unusually fine shooting this season—plenty of feed and all signs favorable.

**Saratoga Lake.**—Timothy Harrigan, the oldest hunter of Warren county, has been located the past season at the Peter Francis place, Saratoga Lake, and has shot over 500 partridges and woodcock in the woods and marshes around that and Round Lake. He says that game is much more abundant in that vicinity than in the neighborhood of Lake George and Schroon Lake.

**PENNSYLVANIA—Leroyville, Bradford Co., Oct. 9.**—Six miles from here in the Towanda Mountains is Sun Fish Lake, surrounded by a dense forest of hemlock and beech. For miles to the south stretches an unbroken wilderness which abounds with deer, ruffed grouse, pigeons and bears, and for those that may be hanker after such game there is a fair sprinkling of wild cat. This region furnishes unusual facilities for the hunter and camper. Ten miles away in the wilderness before mentioned, is a region known as the dismal swamp, filled with windfalls, often so thick that one may walk miles upon them. In these tangled recesses, *Ursus americana* retires from his predatory excursions to the neighboring farms, and safely screens himself from the rifle of the hunter and granger.

**Elkton, Oct. 13.**—The Susquehanna flats are teeming with ducks.

**Lackawanna, Oct. 13.**—The season for large and small game has opened well, and promises to be a fine one. Several deer and a great number of partridges have been shot already. The former are unusually plenty; five were seen last Monday in Lord's Brook Swamp, and Arthur McCarthy surprised one, the other day, feeding in the pasture with his cattle.

**Blooming Grove Park, Oct. 11.**—John Avery, President of the Association, had an exciting chase after a buck the other day, and finally shot his game in Lake Giles, in front of the club house. A party will rendezvous at the club house next Saturday for the fall meet.

**Hornellville, Oct. 15.**—Excellent woodcock and ruffed grouse shooting here for the past two weeks; also a few snipe and rail.

† **Sunbury, Oct. 12.**—Quail and turkey shooting promises fair sport.

**Sharon, Oct. 10.**—Woodcock afford good shooting. E. L. Ohl shot nine yesterday.

**Easton, Oct. 10.**—Ducks have made their appearance and sportsmen are preparing for the fall campaign.

**VIRGINIA—Richmond, Oct. 12.**—The partridge shooting, which begins the first of next month, promises to be unusually good. The weather last June and July was very favorable for the young broods; the protection laws have been generally well observed, and the birds are plenty.

**KENTUCKY—Louisville, Oct. 14.**—Game is abundant on Salt River.

**TENNESSEE—Tracy City, Oct. 11.**—Two bears have been killed within five miles of this city within a few days, one of them only two years old. Such game are more plentiful in the Cumberland Mountains now than has ever before. An elk was run into town a day or two ago, and killed. His antlers were so heavy as to be uncommode him, hence he was an easy captive.

**Clarksville, Oct. 8.**—We are happy to report game quite abundant. The season has been favorable, and many covets of partridges were raised, though most of them are yet too small for sport, showing that it is ridiculous to make the open season commence on Sept. 1, as it does in this part of the State. Blue wing teal have appeared in small numbers. Wild pigeons began last week to show themselves two days ahead of the cool spell of weather. A brace of snipe were seen Saturday. These birds rarely show themselves here in the fall. Squirrels are abundant, and all the old shooting irons are in requisition.

**Clarksville, Oct. 8.**—Partridges and squirrels were never so abundant. The large increase in game is a result of the protective laws, which have been well enforced.

**LOUISIANA—New Orleans, Oct. 11.**—Some blue and green winged teal have been shot at the neighboring shooting grounds—Lafourche, Bayou des Allemands, Little Lake and other resorts. Snipe are few; have not come yet. The N. O. Gun Club has challenged the Montgomery, Ala., club to join in a grand competitive shooting match for a game dinner. An equal number of crack shots from each club are to start from this city Saturday afternoon and to meet again in Monday, with their game, which will be counted and turned over to a favorite restaurant, to be served up in a banquet, the losing club paying all the expenses.

**ARKANSAS—Jacksonport, Oct. 8.**—Game of all kinds in abundance, bears, deer, turkeys, quails, squirrels and ducks just

coming in. Any one wanting to spend a month or so hunting will do well to come down this way. The editor of the *Jacksonport Herald* will take pleasure in giving necessary information to parties desiring it.

**ILLINOIS—Farmington, Oct. 9.**—Ducks quite plenty on the Illinois River.

**MICHIGAN—Benton, Oct. 12.**—Deer are so abundant in this neighborhood that they are destroying all the buckwheat.

**Midland, Mich., Oct. 13.**—A few days since a surveying party ran upon four black bears—a dame and three well-grown cubs—about one mile east of town. All hands, including the ursines, were a trifle startled. No accidents.

**Detroit, Oct. 13.**—Yesterday John E. Long and Ed. H. Gillman killed forty-two snipe. Oct. 11 Wm. Holland and George Avery bagged fourteen ruffed grouse, seven quail, nine woodcock and two rabbits. Oct. 10 Robert P. Toms killed eighteen, and Jerome Cannata, Michael Mariz twenty-six snipe. Oct. 11, Charles Choep, four woodcock, four quail, and one ruffed grouse. The pigeon shooters had a shoot for the State Medal on the 6th inst., but made such poor scores that they are ashamed to have them published. A. L. Hatch and S. A. Warner made a bag of sixty fine mallard ducks at St. Clair Flats on the 10th inst.

Two noblemen were shooting ducks in the Bay last week, and, strange to say, the birds did not crowd around to be shot at any more than when Baby and the other boys are out. Only one person has been shot thus far during the season. With so many inexperienced and headless boys carrying guns, this is wonderful. Some gentleman from the Michigan shore—name unknown—met with a mishap on the bay last week. He laid his gun down on the seats of the boat with both barrels cocked, and while paddling, managed to accidentally discharge them both, thereby blowing a hole in the bottom of his craft. A sail boat came to his rescue, just as he had become completely exhausted. He says he don't care about hunting any more, and any one who will find his Doulgas is welcome to it.

**INDIANA—Huntsville, Oct. 12.**—Duck shooting is the attraction for sportsmen at present.

**IOWA—Pomeroy, Oct. 8.**—Game of all kinds, as ducks, geese, cranes and brant, with a few snipe, are to be had. Now is the time to come West, for the fall shooting is good.

**Ashland, Oct. 13.**—Antoine Peronier, of the Sportsmen's Club, killed thirty ducks in less than an hour's shooting in Fish Creek, one day last week.

**MINNESOTA—Rush City, Oct. 5.** Mr. McKenzie shot a monster moose within four miles of town. When killed he was feeding among a herd of cattle. He stood over six feet high and was nearly coal black. Such game used to be quite plenty in this neighborhood, but this is the first of the species seen for over seven years.

**MINNESOTA—Butternut Station, Oct. 8.**—This is a fine centre for sportsmen. The waters of Butternut Lake teem with fish, and the woods are full of grouse. Trout and muscallonge are plenty, and deer and bears to be found in all the surrounding country.

**CALIFORNIA—Clear Lake, Oct. 8.**—Wild ducks and geese are here in fair numbers.

**Los Angeles, Oct. 8.**—A trapper came into town the other day with 55 dozens of live quail, which he had trapped in the San Jacinto Mountains.

**Santa Cruz, Oct. 8.**—Quail are plenty all over the coast country about here and Pesadero.

**CANADA—Montreal, Oct. 6.**—The fox hunt of the Montreal Fox Club was held to-day. Some fine running and jumping was done, but the party returned without Reynard's brush.

**ABOUT GUNS, AMMUNITION, ETC.**—It is my purpose to give you a few words in sporting topics in general, and if my memoranda prove to be scattering, I hope the game fired at may be struck by some chance shot, as so often happens in the field. And this reminds me that any man who is too lazy to load up twenty or thirty shells with loads of different size, both powder and shot, and try them at targets thereby determining the best load for his gun, deserves all the ills of mind and body which attend a bad shot. In fact, many a good gun is discarded and an inferior one purchased at a pecuniary loss just for want of such a trial; for a slight difference in the load often proves to be the difference between good and bad shooting. Another item in preparing ammunition for breech-loaders worth attention is the length of the shells. If the shells be too short for the chamber the load must be dislocated and knocked out of shape in passing the shoulder in the barrel, consequently bad shooting will result. Or if the shell be too long a part of it will be pushed into the smaller bore and again the load is injured.

Let me advise all who use metal shells not to lend them for use in other guns. In several instances that have come to notice the shells could not be used again, being too large to enter the chamber. The only reason I can give is, that the gun for which they were borrowed possessed a larger chamber than that of the gun they belonged to, and, upon firing, they expanded to the size of the larger chamber.

As to dogs and guns, I hold that the advice of old Polonius is supremely good: "Neither a borrower nor a lender be, for lending loatheth itself and friend, and borrowing dulleth the edge of his bounty." Another item as to shells, I believe the principle of the conical base to be correct. But if those we have received are good specimens, some change must be made before they can be generally used. I think they require less powder than others, and the recoil does not appear as great, but the paper is too soft and thick. On this account I am compelled to use No. 12 wads in No. 12 shells, instead of No. 11, which I am satisfied give better shooting, owing to the greater resistance they give; but No. 11 wads expand the conical base shells so much that I cannot get them in my gun. Again, they are very uneven, some slipping in easily and others requiring a great deal of force. That the fault lies in the shell and nothing else is evident, because this takes place when inserting them before loading into the loading-block. The last indictment I have against them is that more of them miss fire than the common shells.

Connected with loading shells is the subject of loaders. Green's is a very convenient thing, but is only useful for inserting the wad, and it is also expensive. The cheapest and most convenient implement I have seen, one which can be carried in the pocket with comfort, and combines all the neces-

sary tools, except a measure for shot and powder, is the loader of Dudley & Co., advertised in your columns. The cost is small, and it does everything well that is claimed for it.

As for powder, we are all done with buying high priced articles, while we can get a good article at very small cost, to do the same work as the high flyers, and some of the cheaper powders clean out the gun after shooting, as thoroughly as can be wished for. Here endeth my scattering epistle; in which I have tried to give your readers a few of the results of observation, just what I wish to get from them.

**ON SUBSTITUTES FOR CHOKE-BORING.**—A communication published in your issue of Aug. 23, suggests a substitute for choke-boring. The idea was not entirely new, as I had tried like experiments with buckshot, but I determined to give it a fair test, following as near as possible the directions given by E. L. H. Mr. M. S. Alexander, assisted me. Every precaution was taken to make the test a fair one, but the result is totally at variance with what is claimed by "E. L. H." Could he have tested the method at mark? Reason seems to favor it, but below are facts which speak against reason. Size of pattern, 16x16 inches; distance, forty yards, Remington gun, (12-gauge) charge 3½ drs. powder, 1 oz. shot, number of pellets, without paper cartridge, 103, with; 85. W. & C. Scott & Son's gun (12-gauge), same charge, distance, etc., number of pellets, without paper cartridge, 98, with, 70. The above patterns are taken from a large number, and are an average result of the trial.

**Moorfield, W. Va., Oct. 1.**

**ECLIPSE LOADER.**—We are in receipt of one of these loaders, which seems to have been modeled largely from the articles on Loading Blocks that have appeared in our columns. It is very handy where one has a great number of shells to load, though it is unfortunately too bulky for carrying on a two-weeks tramp.

**A HANDSOME PRESENT.**—A silver plated and handsomely engraved crimper has been sent to this office, it being a present from the inventor and manufacturer, J. L. Rawbone, to our Western manager, S. H. Turrill. Certainly for neatness of workmanship and for rapidity in crimping shells, this little instrument is unsurpassed.

**FROM MCKENZIE RIVER.**—Half a dozen canny Scots passed through Duluth, Oct. 4, en route to Scotland, from the McKenzie River District of Arctic America, some 1,300 miles Northwest. They went to that barren country some ten years since from the Orkneys, coming by ship to York factory, Hudsons Bay, and thence to the McKenzie by canoe. Until their return, and on their arrival at Fisher's Landing, on the Northern Pacific R. R., they had never seen a railroad. They knew nothing of the Franco-Prussian war—in fact they had been practically out of the world. They had been engaged in hunting and trapping for the Hudson Bay Company. They report wood buffalo and moose as unusually plentiful in the Land River District this last year.

**Duluth, Minn., Oct. 6.**

**AN ELK ON THE RAMPAPE.**—The *Cheyenne (Wyo.) Leader*, Sept. 23, has this racy account of an elk's raid on Fort Laramie:

A few days ago the military and civilians at Fort Laramie were astonished at the sight of a huge elk, which ran out of the underbrush in the Platte bottom and charged directly through the parade ground. The antlered monster was pursued by a pack of dogs of all sizes, and after clearing the buildings one canine, bolder than his fellows, tipped at his heel, when the elk whirled, threw down his antlers, impaled three or four of his pursuers, then, lifting his handsome head quickly, he threw them many yards away. Two dogs were killed by the goring and fall, while two or three others were trampled to death. Not many minutes elapsed before a dozen officers, soldiers and civilians were mounted and in lively pursuit. Several hundred cartridges were expended, with no perceptible effect except to increase the speed of the forest monarch, and after wearing out their horses in a two hours' run the pursuers gave up the chase and returned to the fort, leaving the elk to seek some quiet grazing spot on the boundless plains.

**TIT FOR TAT.**—The *Springfield Republican* gives this humor of sporting life:

New Haven sporting men recently came a practical joke on a supposed green young man from this city. They took him out duck shooting with a gun loaded clear to the muzzle, and a decoy duck floating so naturally in the distance. Springfield, awarded first shot, of course, as a visitor, rose up in his canoe and blazed away. The duck didn't mind it much, but the visitor was fished out, clenching firmly to the worthless gun. He didn't say anything, but on the way home he just cut loose the game-bags and the party didn't have any game supper that night after a hard day's hunt.

**HE FIRED A GUN.**—Old Mr. Blanchard, who lives out on West Hill, took down his son's double-barrelled gun yesterday morning and went out into the backyard. "I have not," he said, "fired off a gun for thirty-seven years;" and then he pointed the gun at the barn and fired. It does not appear from the evidence which made the most noise—the hired man, who immediately emerged from the barn, carrying himself along with both hands, or old Mr. Blanchard, lying on his back between the ash barrel and the fence, trying to hold his jaw in his place, or the stranger on the other side of the fence, with a brick in each hand, his hat caved, and a black eye all over his cheek, calling out to know what "hoof-bombed, black-eyed, four-legged, turkey-tridion, shandling, cock-eyed, clod-hopping idiot hit me with that gun?" Mr. Blanchard has since been heard to remark that he didn't want to fire a gun for thirty-seven years more.

**NORTH CAROLINA—Wilmington, Oct. 8.**—I bagged first woodcock of the season Saturday. Two of our sportsmen bagged nine Wilson snipe same day. This is unusually early for the long-bills here. Four more killed to-day.

**TAR HEEL.**

**NEW HUNTING BOOT.**—Thompson & Son, 301 Broadway, have designed a new hunting boot, which cannot fail to commend itself to sportsmen. It combines all the advantages of a top boot, with the ease and comfort of a lead shoe. It laces in front over a water-tight tongue, giving a perfect fit over the instep, holding the foot firmly in place, and preventing chafing. Directions for measurements will be mailed on application.

PIGEON MATCHES.

KINGS COUNTY GUN CLUB—Parkville, L. I., Oct. 11.—At the monthly meeting the competition for the champion badge was shot, with these conditions: 10 birds each, 25 yards rise, 80 yards boundary, Long Island Club rules. The score was:

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for P. Moller, J. Jaeger, W. Pickett, etc.

Same day.—Sweepstakes; miss and go out; 21 yards rise, 80 yards boundary.

Summary table for Pigeon Matches with columns: Total, Kld., Total, Kld.

LONG ISLAND SHOOTING CLUB—Jamaica, L. I., Oct. 12.—The second monthly sweepstakes match of this club was shot with H. and T. traps; 10 birds each; ties to be shot off at 3 birds; club rules to govern. The score was:

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for G. F. Gilderleeve, B. Hemming, etc.

In the shoot-off Gilderleeve won first, Hemming and Bayless divided second.

Second sweepstakes at 6 birds each:

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for W. Wynne, B. Landgate, etc.

The ties divided money.

NEW JERSEY—Union, Oct. 10.—A match was shot at Drummond's Farm; Hurlingham rules; 1 1/2 ozs. of shot; 80 yards boundary. The score was:

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for G. Bright, L. Becht, etc.

NEW JERSEY—Sharon, Oct. 2.—The semi-annual match of the Sharon Sportsman's Association came off to-day for the champion gold medal, valued at \$100. After the medal was disposed of all participated in class shooting.

Ten glass balls each, eighteen yards rise.

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for C. E. Tribby, J. N. Oehl, etc.

C. E. Tribby retains the medal.

First match, five balls each, \$2 entrance.

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for J. S. Patterson, J. H. Roy, etc.

Second match, ten balls, \$2 entrance.

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for Patterson, Tribby, etc.

Third match, five balls.

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for Patterson, Tribby, etc.

Fourth match, five balls, \$2 entrance.

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for Oehl, Patterson, etc.

Fifth match, five balls, \$2 entrance.

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for Oehl, Patterson, etc.

Sixth match, five balls; \$2 entrance.

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for Tribby, Crastwaite, etc.

Won by Oehl. Patterson and Tribby divided second.

NEW JERSEY—Hackettstown, Oct. 12.—A shooting match was held here to-day for a diamond pin valued at \$150. Mr. Geo. W. Frasier carried off the trophy, breaking thirteen out of fifteen glass balls.

Johnson, N. Y., Oct. 12.—A pigeon match was held upon the Fair Grounds, yesterday afternoon between Gloversville and Johnstown sportsmen; 24 birds each, 21 yards rise, 80 yards boundary. The following is the score:

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for Northrup, Acner, etc.

GLOVESVILLE.

Table with 4 columns: Name, Total, Kld., Total, Kld. Includes entries for Fay, Coffey, etc.

LETTER FROM MINNESOTA.

MINNEAPOLIS, Sept. 20, 1877.

EDITOR FOREST AND STREAM:

'Tis hard to realize that a little over twenty-five years ago, where now stands this flourishing city of 40,000 people (one of the handsomest cities, as regards natural location, to be found in the Western country), nothing could be seen but the wild prairie, with an occasional cabin. It was then a part of the public domain, and its few inhabitants never thought that in so few years it would become famous all over the world for its manufactories and the progressive spirit of its citizens. It is now a great mercantile center, supplying a vast extent of country with its productions.

The city is located on a prairie, bounded on the west by wooded bluffs, 100 to 200 feet high, beyond which lie a chain of lakes of great beauty. This section of the State is annually visited by thousands in search of pleasure and health, and no better country can be visited. The atmosphere is free from influences of malaria so prevalent in so many other summer resorts. It is truly a health-giving country, invigorating the system, and causing the whole body to feel the beneficial change.

The views around St. Paul and Minneapolis are very beautiful, and have gained a world wide reputation for the grandeur of the scenery presented. One great inducement to tourists and invalids is that the cost of living at these summer resorts is small compared to other places. One can rest from the busy toils of life and enjoy comfort at a small outlay of money. Visitors to Minneapolis usually visit the Falls of St. Anthony first, which are found almost in the centre of the city. This is the great power which moves the extensive manufactories located on the banks of the Mississippi. An idea of the immense force here utilized may be formed from the fact that its dynamic capacity is 124,000 horse power. This unrivaled power has made Minneapolis one of the leading manufacturing cities in the country. The Mississippi River has a fall of eighty-two feet within the limits of the city. Twenty-one flouring mill are located here (one of which is the largest in the United States, having forty-one runs of stone); twenty saw mills. The finest view of the falls is had from the "platform," on the Minneapolis side of the river. It is just above the point where the water rushes over the crest of the apron. The immense saw mills are located here. A magnificent view is also had below the falls, standing on the iron bridge. The banks of the river are rocky, and rise to the height of nearly one hundred feet, giving a view wild and picturesque. An hour can be spent with pleasure at the falls. A drive of four miles over a beautiful country well improved, and we are at Minnehaha, made famous by the pen of Longfellow. The scene before us is truly grand and awakens in the thinking mind a sense of awe. Its beautiful surroundings make it worthy of all the praise it has received. The fall is a perpendicular one of sixty feet; the width of the crest about fifty feet, and of the basin below ninety feet. To obtain the best view of the falls we descend to the gorge below the falls where a sight is presented that we cannot describe, and in imagination we can almost

"See the fall of laughing waters, Peeping from behind the curtain; \* \* \* See the Minnehaha, Glimming, glancing through the branches."

We crossed the rustic bridge and followed a well worn path that lead us under the falls. This chamber is formed by the wearing away of the soft rock caused by frosts and dripping water. The sight was grand. Through the misty water beautiful rainbows were seen on a sunny day, making the visit a pleasant one. The scenery from the falls to the outlet of the creek into the Mississippi is romantic, and the visitor should not fail to follow it to the river. Four miles farther on and we are at Fort Snelling, situated on a cliff, one hundred and twenty-five feet above the river. From the ramparts of the fort a beautiful scene can be had of the surrounding country. This fort has many historical scenes connected with its early history. It is now used as a Government depot and garrisoned by a company or two of regulars. We will next visit Carter's Cave, near Minneapolis, with its romantic lake. It is an historic spot. Here, in days gone by, the Indians assembled to perform religious rites. There are many beautiful legends connected with these spots, but want of time compels us to not speak of them. Fountain Cave, a few miles above St. Paul, on the banks of the Mississippi, is one hundred feet in length, and has been hollowed out by a stream that flows through it to the river. White Bear Lake is a favorite resort. It is a beautiful sheet of water, where the best of fishing is found—bass, pickerel, pike, croppies. The wall-eyed pike are especially numerous.

Hotel accommodations are of the best. Lake Minnetouka, or Big Water, as the Indians call it, is also a favorite resort. It has much natural beauty to please the eye. The lake is seventeen miles long, with an average width of six miles, is considered the best fishing ground in the West, the fish being noted for their excellent flavor. Black and rock bass, croppies, pickerel and sunfish abound in such quantities as to fill the angler's heart with joy. The hotels and cottages afford ample place for board. Guides and boats can be obtained at reasonable rates. Minnetouka has always been a favorite Indian resort on account of the splendid fishing. Other places affording inducements to the tourist might be mentioned, but space forbids.

To tourists and others we would say by all means take the Chicago, Milwaukee and St. Paul Railroad from Chicago, on visiting this country, this being the cheapest and best route. It is one of the best constructed roads in the West, and under the management of that veteran railroad, A. V. H. Carpenter, has become the great route to the Minnesota. The passenger agent will furnish full information as to the best points on his road for hunting and fishing. The officials are gentlemen noted for their integrity and the attention they pay to their patrons. By taking this road you will pass through the best part of Wisconsin and Minnesota.

National Pastimes.

ATHLETICS AT GILMORE'S GARDEN.—A grand display of muscle was given at Gilmore's Garden last Monday evening, under the superintendence of Prof. Will Miller. The programme opened with a succession of all the possible feats on the horizontal bar, performed by members of the Electric and Excelsior Clubs, and other gymnasts. The Graeco-Roman wrestling was won by Wilhelm Heystzer, of Prussia, over his antagonist, Ernest Treher, of Alsace. There were exhibitions by Prof. Fredericks and De Turk with the bayonet and broadsword; boxing by the Edwards; the Hercules art by Emilio Regner; and Indian clubs by Prof. J. M. Laffin. The walking race of one mile, open to all comers who had not won an advertised race, was entered by forty-three competitors, nearly all of whom started on what proved to be an excellent contest. The winners were G. Bough, N. Y.; G. D. Phillips, Hudson B. C.; M. Johnson, N. Y. Then followed fencing, boxing, feats with the dumb-bells and the cannon ball, and Graeco-Roman wrestling, in which Regnier, of France, defeated Joannares. The three-miles handicap walking match, open to all amateurs, in which there were about forty-five entries, was won by T. Smith, N. Y., with a dead heat for second between J. Buckley and E. J. Mott. The Graeco-Roman wrestling match for the championship of the world, which came off at the Garden the following evening, was won by William Miller, who, after a three hours' struggle, gained one fall over his antagonist, Theobald Bauer.

YONKERS LYCEUM GAMES.—The fourth annual games of the Yonkers Lyceum were held Oct. 12. A summary of the programme, with the successful competitors, is given below:

One Hundred Yards Run—First heat, three entries; F. Ruhl, 11s. Second heat; four entries; F. O. Saportas, 10 3/4s. Third heat; four entries; J. H. Ferguson, 11 3/4s. Fourth heat; a walk over for D. Beardon. Final heat; Saportas, 10 3/4s; Ruhl, second. Boys One Hundred Yards Race—First heat, H. M. Moore, 13 3/4s. Second heat, F. Frazier, 13 3/4s. Third heat, H. Lettice, 14s. Final heat, Moore, 12s; Lettice, second. One Mile Walk—Five entries; T. J. Hill, 7m 37s; W. Rowland, 7m 39s. Four Hundred and Forty Yards Run—First heat, E. P. Blunt, 67 3/4s. Second heat, O. P. Ayres, 67 3/4s; Frank Bauham, second. Final heat, Bauham, 57 3/4s. Vaulting With Pole—Lud Penn, 8ft 5in; J. Frazier, second. One Mile Run—C. Voult, 4m 50s; W. J. Duffy, second. Tag of War—First Pull—Palisades Boat Club Team vs Scottish-American Athletic Club Team—won by Scot-American. Second Pull—Palisades Boat Club Team vs Yonkers Lyceum Team—won by Yonkers Lyceum. Third Pull—Scottish-American Team vs Yonkers Lyceum Team—won by Scottish-American. Two Hundred and Twenty Yards Run, for Director's Medal—First heat; C. H. Rowland, 26 3/4s. Second heat; J. W. Arthur, 28s; C. H. Harriot, second. Final heat: Rowland, 26 3/4s; Harriot, second. Three Miles Walk—T. H. Armstrong, 24m 29 3/4s; F. J. Mott, second. Running Broad Jump—J. Frazier, 17ft 10in; G. Frazier, second. Hurdle Race, one-sixth Mile, Eight Hurdles—H. E. Ficken, 44s; F. Ruhl, second. Half-Mile Run, for the Poucher Medal—C. H. Rowland, 2m 22 3/4s; C. P. Ayres, second. Consolation Race, for members of the Lyceum who had not won a prize, Four Hundred and Forty Yards—G. W. Hies, 65s; J. A. Wood, second. Sack Race—J. Frazier, 1m 22s; G. Frazier, second.

DAIRYMOUTH COLLEGE—Oct. 10 and 13.—The contests of the Athletic Association came off to-day. Following is a summary of the events and the winners:

Running Long Jump—Five entries. J. Crocker, '78, 16ft 8in. Gerould, '78, 16ft 1/2in. Standing Long Jump—Shattuck, '79, 10ft 9 1/2in. One-Fourth Mile Run—Cogswell, '80, 1m 2s; Templeton, '81, second. Running High Jump—Three competitors. Cunningham, '81, 4ft 8in. Sack Race, one hundred yards—Shattuck, '79, 33s. Throwing Base Ball—Four entries. Knedlett, '81, 315ft 5in; Porter, '81, 312ft 7in. Two Hundred and Twenty Yards Run—Four entries. Reed, '79, C. S. D., 26 3/4s; Flint, Jr., '80, 27 3/4s. Hop, Skip and Jump—Hazen, '80, 33ft 1/2in. Three Miles Walk—Kibbig, '80, 25m 54 3/4s; Hubbard, '80, 27m 41s. Hurdle Race—Badger, '81, C. S. D., 21s; Rich, '79, 23 3/4s. Football "Warm"—Hoyt, '78, C. D. S., 16ft; Gregg, '78, 15ft 7 1/2in. One Hundred Yard Dash—Flint, '81, 11s; Templeton, '78, 11 3/4s. Three Mile Run—Five entries. Lamb, '79, C. D. S., 16m 40 3/4s.

PLAINFIELD ATHLETIC CLUB.—The contests at the fourth annual meeting of the Plainfield, N. J. Athletic Club were as follows:

Seven-Mile Walk—Three entries. Won by F. J. Mott, H. A. C., in 71m 43 3/4s; W. Anthony, Plainfield, second. One Hundred Yard Dash—With two competitors. J. H. Doano won in 12s. Half Mile Race—E. Merrit, without competition, won in 4m 14 3/4s. Throwing Base Ball—A. R. Pierson won, distance 316ft 2in. One Hundred Yard Race—Five entries. Won by Saportas in 10 3/4s; J. B. Elliot, second. One Mile Walk—Five on ties. Won by J. Garrett in 5m 24 3/4s. Hurdle Race, 120 yards, six hurdles—Five entries. Won by H. E. Ficken in 17 3/4s. Four Hundred and Forty Yard Handicap—Won by Rommel in 55s, with a handicap of 25 yards.

MANNING VS. HINDLE—Beacon Park, Boston, Oct. 13.—The half-mile foot race between Robert Hindle, the Scottish Runner, and J. E. Manning, of Boston, was won by the latter in 2m 1/2, Hindle being 3s. behind.

DOLE VS. THATCHER.—Lester C. Dole, of New Haven, and Harry Thatcher, of England, walk-d a four miles race on the grounds of the New York Athletic Club at Mott Haven, Oct. 15. Dole won in 31m. 49s.

CRICKET.—A match was played, Oct. 15, between Staten Island and Manhattan clubs, resulting in a score of 90 to 90, in favor of the former club.

GUNS! SPECIAL!

The most important sale of the season of Elegant New English fresh Imported BREACH AND MUZZLE-LOADING SHOT GUNS by the celebrated makers, W. C. Scott & Sons, Webley & Sons, W. W. Greener, Schilling, Hackett, Moore, Forsyth, Grant & Co., and many others, comprising all new improvements, and every variety of action. They are fully warranted in every particular. The sale will be held at auction on Thursday, October 25, by BAKER & CO., Auctioneers, at their store, 47 and 49 Liberty street, commencing at 11 o'clock. GUNS ON EXHIBITION, TUESDAY, Oct. 23.

Tiffany & Co., Silversmiths, Jewelers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. TIFFANY & CO. are also the agents in America for Messrs. PATEK, PHILIPPE & Co., of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones, General Jewelry, Artistic Bronzes and Pottery, Electro-Plate and Sterling Silverware for Household use, fine Stationery and Bric-a-brac, is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York.

*New Advertisements.*

**Piper Heidsieck**  
AND  
**PIPER "SEC."**



**For Sale Everywhere.**

JOHN OSBORN, SON & CO.,  
45 Beaver street, New York,  
and  
44 St. Sacramento street, Montreal,  
GENERAL AGENTS.

NOTICE is hereby given that Certificate No. 12, for two shares of stock of \$500 each in the Forest and Stream Publishing Company, issued to the undersigned August 2, 1873, have been stolen, and all persons are hereby notified not to negotiate for the same, as application has been made for the release of said certificate.  
SIMEON A. ATKINSON.  
Sept 27 1y

CITY AND COUNTRY PROPERTY bought, sold and exchanged. C. S. PECK, 5 West Twenty-fifth street, New York.  
Sept 27 1y

25 Fashionable Cards, no 2 alike, with name 10c. post paid. GEO. I. REED & Co., Nassau, N. Y.  
Oct 4 1y

**A Remarkable Bargain in Rifles.**

MESSRS. TURNER & ROSS, the Well-Known Dealers,

OFFER A BIG BARGAIN IN

**BREECH-LOADING RIFLES FOR \$5.**

These Guns are Brand-new and are Exceptional Bargains.

*Wanted.*

**WANTED.** Everybody to subscribe to the *Southern Poultry Journal*, an Illustrated Monthly Magazine, devoted to Poultry and General Sporting Matter. Only \$2 per year post paid; sample copies 20 cents. Correspondence solicited for the various departments of the journal on all subjects of interest relating thereto. Secretaries of Gun and Rifle Clubs are requested to favor us with notes of their movements, etc.  
Address  
E. B. HARTWELL, PUBLISHER,  
Oct 11 P. O. Box 69, Louisville, Ky.

**WANTED**—Steam yacht wanted, from 25 to 30 feet long; must be good and cheap for cash.  
Address H. T. DRURY, Syracuse, N. Y. Oct 18 1y

**WANTED**—A partner with \$2,500 to purchase one-half interest, and edit a well-established monthly journal. Correspondence solicited. Address Room 29, Courier-Journal Building, Louisville, Ky. Oct 18 1y

**DUDLEY'S SHELLS, WADS and CAPS** at **MARSTERS,** 125 Nassau street, New York, and 55 Court street, Brooklyn.

*Sportsmen's Goods, Etc.*



ESTABLISHED 1836.  
**T. Steele & Son**  
Jewelers and Silversmiths,  
HARTFORD, CONNECTICUT.

Dealers in Diamonds, Silverware, Watches, Jewelry, etc. Importers of French, German and English Fancy Goods. Special attention given to the manufacture of appropriate designs for Shooting, Boating, Bacing and other prizes, and our Illustrated catalogue, containing three dozen wood cuts of the above and other articles in our line, including the GAME LAWS OF CONNECTICUT, mailed to any address on receipt of 50 cents.  
Sept 27 1y

**RUSHTON'S HUNTING & PLEASURE BOATS AND CANOES.**

The **LIGHTEST** sporting boat in the world. Weight, 25 pounds and upward. The smallest size will carry two persons. Cedar siding, oak keel, etc., (do not fold up). CANOES, open or decked, weight 35 pounds to 60 lbs. Send stamp for new Illustrated Circular. J. H. RUSHTON, Manufacturer, Canton, St. Lawrence County, N. Y.

**Animal Portraiture.**

Gentlemen desirous of having their Horses and Dogs painted will be guaranteed an authentic and perfect likeness. Reference to editor of this paper.  
E. SANGUINETTE, P. O. Box 3,000, N. Y.  
Oct 18 1y

**DUDLEY'S Pat. Lock Cartridge Loader. EXTRACTS, DECAPS, RECAPS, LOADS, CREASERS AND TURNS OVER CARTRIDGE SHELLS,**

Equal to the most expensive machines. Is adapted to both paper and metal shells. Weighs but four ounces, and is as handy as a pocket knife. In short, is just what sportsmen have been looking for. Samples sent, postpaid, to any address on receipt of price, and if not satisfactory the money will be promptly refunded.  
Nickel-plated, \$2; polished, \$1.75; japanned, \$1.50. Liberal discount to the trade; 10 and 12-gauge now ready.  
DUDLEY & CO., Poughkeepsie, N. Y. Oct 18 1y

**NEW YORK SHOOTING COAT.**

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

**MADE OF BROWN VELVETEEN.**

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$6.50. Also the best brown corduroy pants at \$10 per pair. I make only the one grade, as the cheapest goods do not turn briars and will not give satisfaction.

Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is The Best Yet. Coat, \$6.50. For full Suit, \$14.00. I also make the Sleeveless Coat; Vest with sleeves if desired. Rules for measurement and samples sent upon application.

**F. L. Sheldon,**

RAHWAY, N. J.

For Sale in New York by

**H. C. SQUIRES, 1 Cortlandt St., N. Y., CREEDMOOR PARLOR RIFLE.**

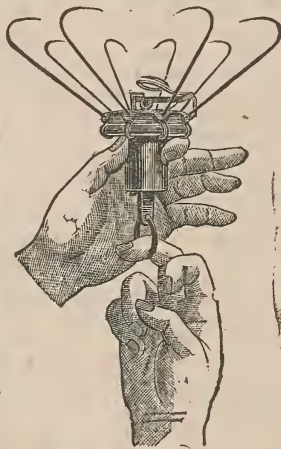


Finely finished, carved stock. Loads at breech with small percussion cartridges. Will shoot 250 feet with accuracy and force. There is scarcely any report, and no smell from this Rifle, making it very appropriate for parlor use, picnics and fairs. The shell extractor is on the hammer, pulling out the old shell every time the hammer is raised.  
Price, \$10; cartridges for rifle \$3 per thousand, or \$1 per box of 250. Iron bell target, with numbers, 35 cent C. O. D. or on receipt of price. Send for price list of Revolvers, Skates, Novelties and Sporting Goods.

**FISH & SIMPSON,**

132 NASSAU STREET, NEW YORK.

**A VICTORIOUS INVENTION The Eagle Claw.**



An ingenious device for the purpose of catching all kinds of Animals, Fish and Game. The easy method of setting the Eagle Claw, combined with the simplicity of removing the victim, are among its peculiar advantages. It is immaterial how to place it when set. It may be buried flat in the ground, suspended from the limb of a tree, or, when occasion requires, covered with grass, leaves or other light material without in any way impairing its certain operation. It is adapted for bait of any description, and, when set, no Animal, Fish or Bird that touches the bait can possibly escape. It does not mangle or injure its victims in the slightest degree, nor need they be handled to free them from the trap.

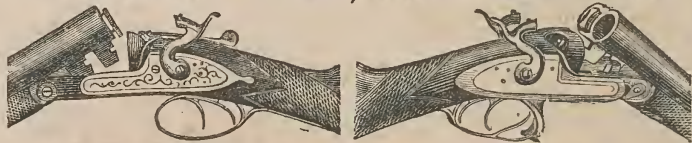
**PRICE LIST:**

- No. 1.—For fishing and all kinds of small game and animals, sent by mail..... 35 cents.
- No. 2.—For catching Mink, Muskrats, Raccoons, large Game, Fish, etc..... 75 cents.
- No. 3, or Rocky Mountain Giant, for catching Bears, Wolves, Panthers, etc. Can be easily set by a boy, and will stand a strain of several hundred pounds. Weight, 10 to 15 lbs. \$10. All goods sent, charges paid, to any address on receipt of price. Address

**Stent & Co., Gen'l Agents,**  
132 Nassau St.,  
NEW YORK.  
P. O. Box 2997.

**AGENTS WANTED**

**JOS. C. GRUBB & CO.,**  
712 Market Street, PHILADELPHIA.



Importers and Agents for the Best Makes of **BREECH-LOADING GUNS, RIFLES, & C.** of all grades, from the justly celebrated Guns of

**JAMES PURDEY, LONDON,**  
To the Cheapest Class; including WESTLEY RICHARDS, E. M. KELLY & CO., W. & C. SCOTT & SON, P. WEBLEY & SON, W. W. GREENER, also PARKER and REMINGTON'S **AMERICAN MADE GUNS.** Everything in the Shooting, Tackle and Material Line of the Best and Most Approved Kinds. Prices on application.  
N. B.—Centennial Medals were awarded to James Purdey, Westley Richards, P. Webley & Son, W. & C. Scott & Son and others.

**THE UNITED STATES CARTRIDGE COMPANY,**  
LOWELL, MASS.

Manufacturers of the **CENTRAL FIRE, SOLID HEAD, BRASS SHELL, RE-LOADING CARTRIDGE,**

Used by the Army and Navy of the United States and several Foreign Governments. All kinds of RIFLE FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

**WALLACE & SONS, Agents, N. Y. City.**

**BOYS' SINGLE-BARREL SHOT-GUNS, \$2.50** at **MARSTERS,** 125 Nassau street, New York, and 55 Court street, Brooklyn.

**DINGEE SCRIBNER,** Manufacturer of salmon and Trout Rods, Salmon and Trout Fishing Casting Lines, Landing Nets, Gaffs, etc. Best Greenheart Rods at \$9, \$11 and \$13 each, Waterloo Street, St. Johns, N. B. 1y 12 6m

**SHELLS LOADED FOR PARTRIDGE, QUAIL, WOODCOCK and SNIPES, \$1** per hundred, at **MARSTERS,** 125 Nassau street, New York, and 55 Court street, Brooklyn.

**The Ludlow Trout Co.** Will this year take from one to two million brook trout eggs (ready for shipment from Nov. 10 to Dec. 20) at lowest prices. Send for price list. Address **B. FREEBURG, SUPERINTENDENT,** Aug 23 8m Ludlow, McKean County, Pa.

The Kennel.

FOR YOUNG COCKER SPANIEL STOCK FROM the choicest breeds. Inquire of M. P. MCKOON, Franklin, Del. Co., N. Y.

FOR SALE—Fox hounds, No. 1 stock; very fast and strong-scented; some one year old and some pups. L. M. WOODEN, Rochester, N. Y.

LOUISVILLE

Exposition Bench Show, OCTOBER 18th, 19th and 20th, 1877. Held under the auspices of the Louisville Gun Club, during the last week of the Exposition. Liberal premiums and first-class accommodations. National Kennel Club rules to govern. L. W. NOEL, Gen'l Manager, Louisville, Ky.

DOGS.

DOCTOR HENRY GARDNER, No. 146 West Thirtieth street, New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases.

FOR SALE—A fine Gordon setter, 14 weeks old, price \$10, or will exchange for a pair of wild geese. Address T. R. WATSON, Plymouth, Mass.

BALLARD'S FLEA KILLER! FOR THE DESTRUCTION OF FLEAS ON Dogs and Other Animals. An Absolute and Perfect Exterminator of the pest. May be used with entire safety.

LAZELL, MARSH & GARDINER, 10 GOLD STREET, NEW YORK.

SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped. F. O. de LUZE, 13 South William Street, N. Y., Sole Agent.

CHAMPION LARK IN THE STUD

Orange and white, by Brooks' Phil, out of Raymond's Dulo. Perfect specimen of English setter. First prize at N. Y. Bench Show for English setters in largest class ever shown in the country.

Fleas! Fleas! Worms! Worms! STEADMAN'S FLEA POWDER FOR DOGS.

A Bane to Fleas—A Boon to Dogs. This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned.

ARECA NUT FOR WORMS IN DOGS. A CERTAIN REMEDY.

W. HOLBERTON, 102 NASSAU STREET.

MARSTERS' IMPROVED HORN DOG WHISTLE.



Cannot be Lost from the Coat. ALWAYS IN THE SAME PLACE WHEN WANTED.

J. F. MARSTERS, 125 NASSAU ST., N. Y., 55 COURT STREET, BROOKLYN.

The Kennel.

FOR SALE OR EXCHANGE—A fine setter dog six months old. Address LOCK BOX 264, Warren, Pa.

FOR SALE, at a very moderate price, a fine bred setter bitch; also a superior broken setter dog and one pointer. Address HORACE SMITH, No. 1 Cortlandt street.

FOR SALE—Six Low English Beagle Hounds; imported and bred by GEO. D. LEONARD, Hinesburgh, Vermont.

EXTRA fine red Irish setter pups for sale: One dog pup, eight weeks old, out of Duffenderfer's bitch Bess, and sired by the red Irish stud dog York; price \$25.

FOR SALE—Four dark red Irish setter puppies—two dogs and two bitches—out of my Irish bitch Bess, by imported Irish dog York. Bess is a rich dark red, a superior field dog, and the dam of Bogard's, winner at New York dog show.

O IRISH PUPS FOR SALE—Irish setter pups, three months old, out of Countess, she by Lordman's Dash; sire of pups imported Irish setter Don, broken on quail and grouse; very staunch and fast.

FOR SALE—A superior well-bred pointer dog, a beautifully trained pointer bitch, thoroughly well bred, and five pups now about eight weeks old, as the owner cannot keep them.

THE N. Y. Kennel Club offer for sale their Irish bitch Phit, 2 1/2 years old, by Saitus' Dash out of Dr. Strachan's Belle.

FOR SALE—Red Irish setter, 2 1/2 years old. Very cautious; shot over all last season; good retriever, land or water. Particulars by letter.

EDINA KENNEL.

JESSE SHERWOOD, Proprietor, Edina, Knox County, Mo., breeder and importer of Sporting Dogs. Pointers, setters, spaniels, fox and beagle hounds.

FOR SALE—When eight weeks old, six puppies out of my blue bellon setter Meli, by Bob Boy. They are black and white.

Sportsmen's Goods.

FRANK SCHLEY'S AMERICAN



Partridge & Pheasant Shooting. Describing the Haunts, Habits, and Methods of Hunting and Shooting the American Partridge—Quail; Ruffed Grouse—Pheasants, with directions for handling the gun, hunting the dog, and shooting on the wing.

Frank Schley, Frederick City, Md.

FOR SALE—First-class muzzle-loading double gun, by John Wm. Edge, of England; laminated steel, 13-bore, 6 1/2 lb., 160 pellets at 40 yards; one of the best field guns of its inches in the country.

FOR SALE CHEAP—A 30-in., .45-cal. Sharps' hunter's rifle, with shells and reloading tools. But little used and in perfect condition.

FOR SALE CHEAP—Remington ride 44-cal., 20-in. bbils., 7 grains powder; brand-new. D. H. STEBBENS, Riverton, Conn.

FOR SALE, or will trade for a fine shot-gun, a model steam engine, 9-in. by 4-in. stroke, with copper boiler, in complete order.

FOR SALE—A Rob Roy Canoe, with paddle, sail, etc., complete. Has been used one year, and has just been thoroughly renovated.

FOR SALE—Tolley, 12-bore, 9-in., 30-in. bbil., snaffle action, double bolt, patent fore-end pistol-grap, modified choke; as good as new.

Hotels and Resorts for Sportsmen.

Metropolitan Hotel, WASHINGTON, D. C. Carrollton Hotel, BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICOLAUS, N. Y.

SPORTSMEN TAKE NOTICE—The Franklin House, Chiltonville, Plymouth, Mass. Good gunning and fishing, sea-fowl, ducks, partridge, quail, woodcock, peep and plover.

BAYFIELD—The Great Health and Pleasure Resort of the Northwest. Beautiful scenery, pure atmosphere, delightful climate, fishing, boating, sailing and shooting.

Duck Shooting.

SHINNÉCOCK BAY—THE BEST SHOOTING GROUNDS NEAR NEW YORK CITY. The Bay View House is the largest and best located house on the bay.

HALSEY HOUSE, Atlantaville, Smith Side, L. I. on the western border of Shinnécock Bay. This house is open for sportsmen, where batteries, decoys, etc., can be had at all times.

SHOT-GUNS AND RIFLES LOANED AT MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

FOR SALE—A black and white setter dog, three and a half years old, thoroughly trained.

Brook Trout Eggs For Sale. The Proprietors of Trout Grove Fish Ponds are taking great care to breed from their largest and best fish for seed trout.

FOR SALE CHEAP—A Maynard shot gun in good order, with twenty shells. Regular rifle barrel can be used in place of shot barrel.

CARTRIDGE BAGS, 15c; GAME BAGS, 1c; POWDER FLASKS, 75c; SHOT FOULERS, 75c.

BLOOMING-GROVE PARK ASSOCIATION. very low price. The best Game Preserve in America.

A VERY DESIRABLE ESTATE, either for market gardening or general sporting purposes, at the south will be leased to responsible parties for a long or short term of years.

CURTIS & HARVEY and DUPONT GUN-POWDER AT MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

A DESIRABLE DUCKING SHORE FOR SALE.

The undersigned offer for sale the known Seneca Point, favorably considered among sportsmen as being one of the very best ducking shores on the Chesapeake Bay.

FOR SALE CHEAP—A 30-in., .45-cal. Sharps' hunter's rifle, with shells and reloading tools.

FOR SALE CHEAP—Remington ride 44-cal., 20-in. bbils., 7 grains powder; brand-new.

FOR SALE, or will trade for a fine shot-gun, a model steam engine, 9-in. by 4-in. stroke, with copper boiler.

FOR SALE—A Rob Roy Canoe, with paddle, sail, etc., complete.

FOR SALE—Tolley, 12-bore, 9-in., 30-in. bbil., snaffle action, double bolt, patent fore-end pistol-grap, modified choke; as good as new.

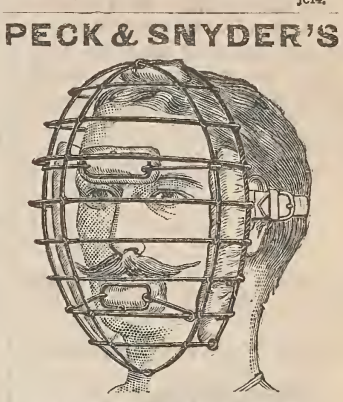
Sportsmen's Goods.

HAMMOCKS FOR LAWNS AND EXCURSIONS. Tents, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seaters, etc.

EVERY DESCRIPTION OF Sporting Goods. GUNS, RIFLES, PISTOLS & FISHING TACKLE, HUNTING AND FISHING SUITS, CAMPING OUTFITS.

WASHBURN & CO., P. O. box 822, 66 JOHN STREET, N. Y.

PECK & SNYDER'S



Base-Ball Catcher's Mask. Now used by all the prominent catchers when playing behind the bat.

COMPLETE OUTFITS FOR CAMPING, SHOOTING, AND FISHING.

W. HOLBERTON, P. O. Box 5, 109, 102 Nassau street, N. Y.

Folding Pocket Mosquito Bar. A most ingenious device for camping purposes.

A. A. COWING, WATKINS, N. Y. W. HOLBERTON, 102 Nassau St., N. Y. Agent.

IMPROVED Gaiter Pantaloon.

GAITERS and PANTALOONS combined, capable alike up to the thigh, the inner ply of heavy duck, heavily padded to keep the legs dry.

PRICES: Duck.....\$5, Fustian.....\$9, And Corduroy.....\$10

Geo. C. Henning, WASHINGTON CITY.

REVOLVERS, 7 SHOT, \$2.50 at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

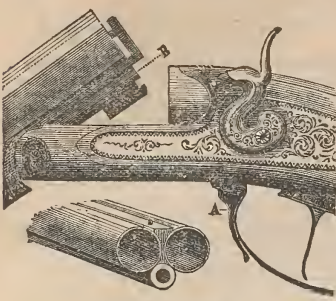




Guns, Rifles, Etc.

W. & C. SCOTT & SONS.

Sportsmen's Goods.



### Breech-Loading Guns.

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

Three barrel, \$35 to \$50.  
Double barrel shot guns, Damascus bar, \$50 to \$70.  
Twist barrel, \$35.

SEND FOR NEW CIRCULAR.  
W. H. BAKER & CO.,  
Syracuse, N. Y.

### Sportsman's Depot.

(ESTABLISHED 1836.)  
First premium at World's Fair at New York and Centennial Exhibition.



### JOHN KRIDER,

N. E. Cor. Second and Walnut Sts., Phila.  
GUNS, RIFLES, PISTOLS,  
Fishing Tackle, Rods, Reels, Lines, Hooks, Flies,  
Leaders, Snoods, Artificial Bait, Fly Books,  
Etc., Etc.  
Salmon, Bass and Trout Flies Made to Order.  
Also  
"Kriider's" Celebrated Center Enamel Split and  
Glued Bamboo Rods.  
Birds' Eggs and Birds' Skins in Great Varities—  
Taxidermy in all its branches.  
Spratt's Patent Dog Biscuits.  
Repairing of all kinds. mar-15

E. THOMAS, JR.,  
GUNS, PISTOLS, SPORTING GOODS,  
174 South Clark Street, Chicago, Ill.

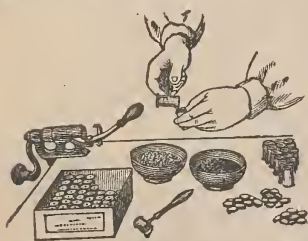


### THE NEW AMERICAN Breech-Loading Shot Gun

For close hard shooting excels all others. Price \$17.  
Send for circular. Duck guns, extra heavy, a specialty. HYDE, SHATTUCK & CO., Mrs. A. Hatfield, Mass. Sept 6m.

### SUCCESSFUL SHOOTING.

For information of best localities inquire to this address.



Through years of experience of both myself and my customers I have successfully found the correct method of loading shells for close, hard shooting and have made the price as low as consistent with good material and workmanship. Shells loaded with American ammunition. ... 17, 14, 16-gauge, per 100, \$4  
" " " " " " " " " " " " " " \$3  
English " " " " " " " " " " " " " \$5  
" " " " " " " " " " " " " " \$6

Shot-guns and Rifles, loaned, bought, sold and exchanged. First quality powder, shot, caps, wads and shells at low prices.

**J. F. MARSTERS,**  
195 Nassau street, N. Y., and  
45 Court street, Brooklyn.

Goods sent C. O. D. by express. Send for catalogue of sporting goods. Sept 27

**B. GREENWOOD,**  
Manufacturer of Aquaria Greenhouse and Aquarium Cement, and dealer in Fish Food, Gold Fish, Water Plants, Fish Globes, and aquaria stock of all descriptions. Canaries, Cages, Rustic Baskets, Bird Houses, Sea Shells, etc., wholesaler and retail.

No. 11 1/2 to 13 COLLEGE PLACE,  
Near Murray St. New York, N. Y.



TRIPLEX.

marked the PREMIER QUALITY  
[Extract from FOREST AND STREAM, New York, December 26, 1876, Contributed by one of the Judges of Awards of Guns at the Centennial:]

"This action (The Triples Lever Grip) combines in the highest degree strength and simplicity, and most rapidly secure the favor of all who test its merits.

**COMPENSATING LUMP.** Strongly recommended. It is invaluable, and should be ordered on every gun. Costs about \$10 extra. Choke-bores, medium or full. Our guns to be had of the principal dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.

## DON'T PASS THIS BY.

STODDARD'S CARTRIDGE-LOADING IMPLEMENT, COMBINING ALL OTHER TOOLS AND FOR ALL SHELLS.

Length, 4 1/2 inches; weight, 10 ounces, and nickel-plated. Price, \$6.

Recommended by FOREST AND STREAM AND ROD AND GUN, Boone, Recapper, Will Wildwood, Ira A. Payne, and others. Liberal discount to the trade. Send postal order to

**C. J. STODDARD & CO.,**  
Lock box 192, Washington, D. C.

## TO SPORTSMEN IN GENERAL!

### Headquarters Bohemian Glass Works, 214 PEARL STREET, NEW YORK.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the service of that well-known Sportsman,

### IRA A. PAINE,

to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell.

In offering this new ball to the public it will require very little introduction, as in no instance where it has been exhibited has it failed to take the place of all others, and is to-day the only perfect substitute for a bird in use.

The following is from the New York Herald, Sept. 1:

**THE BRITISH VISITORS RECREATING AT ELM PARK—A TRIAL AT GLASS BALL SHOOTING.**—The visiting riflemen, accompanied by Judge Gildersleeve, Col. John Bodine and Mr. L. M. Ballard, all of the American Team of 1875, arrived at the Park a little before eleven o'clock, and practice shooting was at once commenced. The shooting at glass balls sprung from a steel trap, instead of live pigeons as in Europe, was a novelty for the Englishmen. Mr. Ira Paine, who has invented the "feather balls," furnished them for the occasion as a compliment to Judge Gildersleeve and his friends. This style of balls gave during the afternoon such satisfaction that after the shooting was over the West Side Gun Club held a special meeting to adopt them, ordering 1,000 of them for their use.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300 or boxes of 500. Send for price list. We intend offering special inducements to the trade.

## Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

SPORTSMEN'S CLUBS AND AMATEURS.

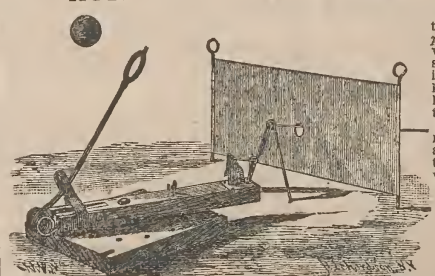
**THE PATENT ROUGH BALL**—The only Ball that will break sure when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 13, 1877.

### Geo. E. Hart & Co.,

NEWARK, N. J.

TRADE SUPPLIED.

### HUBER & MERWIN'S CHAMPION BALL TRAP.



This certifies that I have used every trap in market, and find the CHAMPION BALL TRAP, for durability and perfection of its operation, superior to them all, and take pleasure in recommending the "Champion" to sporting clubs and my friends. (Signed) Ira A. Paine Aug 9 ly

First Prize Medal and Diploma, awarded at the Centennial Exhibition, for excellence of workmanship and material in their Premier Quality and medium grades. Their New Patent-Triples Lever Grip Action and Compensating Lump. The attention of sportsmen is requested to the above new action. Its superior strength and solidity impart greatly improved shooting powers. Hard hitting being the desideratum required, is obtained by this powerful gun. Prices of the New Triples Lever Grip, \$175, \$225 to \$400. Marked the Triples 10-bores extra. Our highest grade is as usual

## W. H. HOLABIRD, Specialties in Clothing FOR SPORTSMEN. Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent by mail, post-paid, \$6.

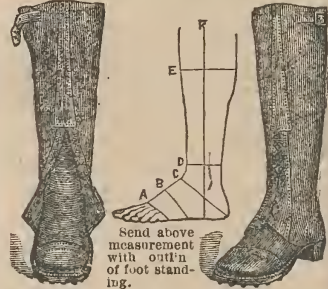
Holabird's New Game Bag; weighs 12 ounces. The most convenient and coolest gar-net ever offered to Sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2.

Holabird's New Cartridge Vest, capacity for 400 shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Russian suits made to order in the neatest and most desirable style. Send 5c cents for my book on Dvg Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods. Jy 12 74

## THOMSON'S New Style Hunting Boots.



Send above measurement with outline of foot standing.

Has all the benefits of Top Boots, and ease and comfort of Laced Shoes. Waterproof to the top. Send address for descriptive card.

**THOMSON & SON,**  
P. O. Box 1,016, 301 Broadway, N. Y.

Founded July 4, 1862.



Thos. W. Sparks,

## Shot & Bar Lead MANUFACTURER.

Office 121 Walnut Street, Philadelphia.

Magic Lanterns and Stereopticons.

E. & H. T. ANTHONY & CO., 591 Broadway, N. Y., opposite Metropolitan. Stereoscopes and Views; Graphoscopes, Chromos and Frames; Albums, Photographs of Celebrities, Photographic Transparencies, Convex Glass, Photographic Materials. Awarded First Premium at Vienna and Philadelphia. oct 23

## Sportsmen's Headquarters

FOR WINES, LIQUORS AND CIGARS.

Outfits for yachting. The camp or field a specialty. Olives by the case, gallon or bottle.

THOS. LYNCH, IMPORTER,

99 NASSAU ST., Bennett Building, New York. Sept 17 74

Painting.

## PAINTING.

EVERY ONE THEIR OWN PAINTER.

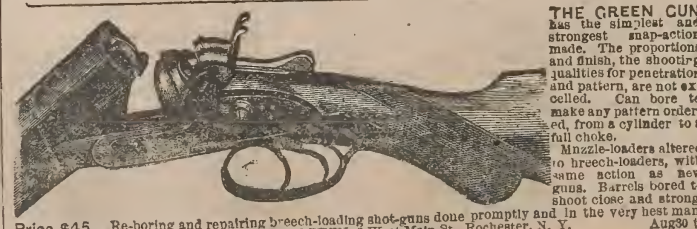
50 Per Cent. Saved.

We are manufacturing a very fine Pure Ready-mixed Paint, mixed in such a manner that any ordinary stable or farm hand can make as good a job of painting as a painter can with paint mixed in the old way. This is because our paint does not set quick, and thus show marks of the brush. We sell it lower than materials can be bought in the ordinary way, and pay freight in certain sized orders.

Any gentleman wishing to paint up his buildings at small expense had better write, and have sent free our book.

Address 260 Front street,  
INGERSOLL PAINT WORKS.

1876



Price \$45. Re-boring and repairing breech-loading shot-guns done promptly and in the very best manner. Send for new price list to CHARLES GREEN, 8 West Main St., Rochester, N. Y. Aug 30 74

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

NEW YORK, THURSDAY, OCTOBER 25, 1877.

Volume 9.—No. 12.  
No. 111 Fulton St., N. Y.

For Forest and Stream and Rod and Gun.  
**BRUNO.**

BY J. C. BURNETT.

"WELL, yes, stranger, he's getting rather old,  
He's not the sort of dog he used to be,  
But even now he's worth his weight in gold,  
And while he lives, he has a friend in me.

"And will he fight? A little now and then,  
Although he never hunts a muss on sight,  
He's mighty fair; but sometimes, like us men,  
He rather likes a rough-and-tumble fight.

"I've seen him look as if he'd give the odds  
To two or three, and take 'em turn about,  
Just to accommodate, and then, ye gods!  
He'd waltz in beautiful, and lay them out!

"You ought to see him climb a real wild cat,  
The savage ones that skimish round at night;  
Just like a black-and-tan goes for a rat,  
He'll snatch one bald, and that's his soul's delight.

"One evening yonder by that poplar tree  
He found a lynx, the worst old varmint here;  
I heard him bark, which meant a jamboree,  
And so I took my gun, and gave a cheer.

"There on the river bank I saw two eyes,  
Up in a sapling, looking mighty bad;  
I thought I'd take the fellows by surprise  
And so I fired, to give him all I had.

"The old gun missed and something seemed to drop;  
'Twas that there lynx, and down he came on me.  
I shook him, though, and Bruno got on top  
And flaxed him in a way 'twas good to see.

"But there's one fact, its singular to note,  
He'll tackle anything in thick and thin  
From bears to cats, excepting the coyote,  
He thinks that animal is kin.

"I've seen him join a hunt and take the trail,  
And skip ahead of all the rest a mile;  
But when it came to closing in he'd fall,  
As if he kind o'thought, he's not my style.

"Ent, stranger, have you been on Monument?  
The creek that comes out there by Castle Rock?  
In sixty-five we lived there in a tent,  
My wife and I, attending to our stock.

"One day I had to go up on the Range,  
And left the dog as I had done before;  
He knew the cause, and didn't think it strange,  
But went and curled himself beside the door.

"When nearly night my wife became afraid,  
For Bruno seemed to have bad news to tell,  
As if he knew there was an Indian raid  
And he could hear the Cheyenne whoop and yell.

"There was; and when the Indians saw the tent  
They just swept down like devils of their kind,  
On robbing and murther all hell bent  
And even worse when victims they could find.

"One old sca'p-lifter with his knife in hand  
Rushed through the door, but Bruno with a grin  
Just took him by the throat, you understand,  
And with an ax my wife got her work in!

"Another red skin next came in to help  
With gun and knife to shoot and carve his way;  
Ent Bruno mounted him, and with a yelp,  
As much as if he said, 'You'll come to stay!'

"Two others now came yelling through the door;  
But dog and wife were there with teeth and ax,  
And there they piled the devil's up, all four!  
'The rest outside?' Well, sir, they just made tracks.

"He's splendid! Shake! And now he's getting old  
I love to think of what he used to be;  
That's why I say he's worth his weight in gold,  
And while he lives he has a friend in me."

For Forest and Stream and Rod and Gun.

### A Trip to the Middle Fork of Rock Castle River.

WHILST on the Castle in June, giving my nine-years-old hopeful his first practice with a reel, it was my good fortune to meet the Hon. Isaac J. Fanbus, who informed me that I committed a mistake in stopping so near the railroad terminus and coal mines, and cordially invited me to make his house on Middle Fork the objective point of my next trip. An enthusiast had excited me with accounts of a tyro's remarkable success in that vicinity during early spring, and corroboration by the judge insured prompt acceptance of his hospitable invitation.

When I repeated to Mack and wrote to Higgins the exhilarating accounts of prolonged contests with ten and fifteen-pounds jack and salmon, and three to five pounds black bass, or "jumpers," as we familiarly call them, they readily agreed to join in a week's excursion.

The train was on time, and we embarked well equipped for the jaunt, though literally "under a cloud," from which rain began gently pattering at nightfall and gradually increased to a regular waterspout before midnight, proving decidedly a damp upon anticipations and prospects. Hig, who is an authority on all matters of sport, declared that such a deluge would convert Lake Superior into a mud puddle, and our best policy would be to return with Capt. Sweeney on the morning train. Mack declared that he was off for a week, and sterily opposed the proposition. I voted no, and the matter was settled. We anticipated a horseback ride to the judge's, but failing to get a telegram to our host, there was no alternative but to employ Ben Salyers to take us up in his two-horse road wagon. He knew every foot of the twelve miles to Judge Fanbus's, "and there ain't a cleverer man in the State of Kentucky, fur I lived by him onst" and would take us there in his wagon as quick as we could ride it horseback. "Oh, yes! the road is good, except two little hills, and I can take you there in two hours." "No, you needn't walk a foot unless you want to, fur I can pull fifty bushels of coal over this country with my team, and my wagon rides easier than a spring wagon."

That was "spreading it on rather thick," but he was engaged to have his rig at the door next morning at 6:30 sharp, and it was there. The train had gone; clouds were lowering and prospects growing, but the "die was cast," and we hurriedly loaded our traps and started. Within the first half mile we were constrained to alight and walk down and up the precipitous banks of Round Stone, and two hundred yards along a muddy tributary, whose stony bed is the wagon road. There were no diamond rain drops glittering in morning sunshine; there were no delicious aromas of wild flowers, nor was there music to our ears in the songs of twittering bullfrogs and domestic geese, or the caroling kingfishers and blue-tailed jays.

The first mile brought us to one of Ben's little hills, which proved a small mountain, rejoicing in the euphonic cognomen of "Gauley," exulting in a summit a mile removed from its base by the most practicable road, and that so precipitous as to preclude all hope of being hauled up by anything short of a four-horse team. A glance at the span of crowbar precipitated Hig and Mack from the wagon, and when the owner looked inquiringly at me I gracefully reached for the lines, with, "Hand me the ribbons, Ben, I'm as good as ever pulled a string over a couple of such fiery steeds, and it is your turn to walk, anyhow." When fairly upon the summit of Gauley the descent begins, but a shorter drive brought us to another rocky rivulet at the foot, where jolting is severe. "Three miles to the depot," greeted us, soon after the passage of Gauley had been successfully made, and our chronometers announced two hours out. We were to be taken through in three hours and a half by time cars, and nine miles were before us. The second little hill loomed up before us soon after we had passed the three mile post, nor were we surprised to find it a revised and enlarged edition of the first.

Ben's exercise in scaling Gauley reminded him just before attacking the second that he intended to get a pint before he started, but in his great haste to get an early start he forgot it. The transparency of the hint was amusing, but it fell upon

waste places, and the astute (?) John doubtless thought us a trio of the durndest ones he had ever seen from the bluegrass when assured that he had egregiously blundered in forgetting that pint, as he had charge of a party of Murphy admirers. Having clandestinely taken a revolver on the side of Gauley whilst giving the team a blow, I repeated to Ben a few of the best reasons our last crusader urged against carrying a bottle when you go a fishing, in the meantime taking a sly side glance at my companions. Mention of the article caused Mack's mouth to water, and he nervously loaded his pipe and demanded a light, whilst Hig, despairingly tore a fresh quid from his plug by way of solace, his countenance wearing the expression of one who had just received a dispatch from a friend in distress. Satisfied that he had put his foot in it Ben rallied at sight of Hig's tobacco, and applied for a divide of that, with a make the best of it in the tone of his, "Give me a chaw please."

As I continued to engineer the craft from the beginning of the steep ascent, Ben enjoyed the luxury of walking up the second mountain also, before he was permitted to resume the driver's seat. When all were again seated in the wagon, humanely granting the horses a breathing spell, our conductor informed us that we would have a ride of nearly a mile before starting down the mountain, and would pass by a splendid spring of water, of which the quartette craved a draught.

Mack had dissolved in a flask of whiskey enough quinine to last him during his absence from home—to be used in event of a neuralgic attack—and when he produced it, took a sip and passed to the driver with a declaration that he carried only medicated spirits, which are rather bad to take till one becomes habituated. We readily comprehend his conclusion, that a pull at that bottle would satisfy Ben with our supply of the very joyful, and insure a "not any" when we tendered him a drink of the unadulterated from a counterpart of Mack's flask, in which a few lumps of white sugar had been deposited for convenient transportation. A smile of exultation spread all over the beneficiary's countenance as he grasped the treasure, and the alacrity with which the aforesaid was conveyed by his mouth is best expressed by the adjective charming.

A wholesome draught was swallowed before full benefit of the quinine was obtained, and a moment's reflection convinced him that he had enough of the nauseating mixture. The bottle was quickly returned to our benefactor, who, with the gravity of a Quaker, handed it back to Hig and me. The sweetened medicine was successfully substituted, and, after a liberal dose, passed to Mack that he might "take the taste out of his mouth." The victim made no complaint of the peculiar flavor, as his curious scrutiny of our countenances while drinking failed to detect aught but relish of the supposed stuff; but, remarking "The road's good, and we'll make up for lost time," whooped up his steeds, till that splendid spring was reached, at a pace which made it lively for the passengers dodging overhanging boughs and briers, and doubtless suggested to the team that they were being goaded into a triple-quick retreat before an army of blood-thirsty buzzards. The descent of that second little hill was simply hazardous, so steep and rough is it. Both hind-wheels were locked, but the horses were taxed to their utmost to control the wagon and maintain a footing, as it gyrated as recklessly as a greenhorn on skates. At the bottom a sign-board was descried, which proclaimed "Four miles to depot," another mile to be traveled before the half-way point was reached, and time up. "Oh, the road is sandy, level and shady from here, and we'll soon be there, now," were meant as cheering assurances, but the remarkable facility with which he had reduced mountains to mole-hills, created grave doubts as to Ben's capacity to adequately pass upon good dirt roads, and the correctness of those doubts were established by the remainder of the drive, for the road was found to be in an infinitely worse condition than when he was last over it three years ago.

At the half-way place we crossed the North Fork, which is mentioned by the residents only by the name of "Horse Lick." It was both muddy and "on a high." We crossed immediately below an operating corn-mill of the most unique appointments it was ever the good fortune of our trio to see. The architecture of the dam is an infringement upon the beaver plan, but so happily offset by the originality of the remaining appointments there is little probability of prosecution for infringement of patents, should letters be held, and interested parties catch sight of that institution. Half a

CARRIER PIGEONS AS SMUGGLERS.—A carrier pigeon, in France, dropped exhausted into the Seine. He was rescued, and found to be heavily laden with tobacco. A police investigation ensued, and a regular system of smuggling ferreted out. Two dozens of pigeons per day, each loaded with from ten to fifteen grammes of the weed, were daily dispatched from Belgium. The servants are now discussing whether it was the overload or the absorption of the poison that dropped the unlucky bird.

dozen upright poles set in the ground, connected at their tops by saplings, which answer the purpose of rafters, constitute the frame of the (possibly intended) mill-house, and a patch of clapboards, about 6 by 9 feet over the hopper, complete the building(?). The undershot wheel and nether stone are attached to the same shaft, and the apparatus was industriously clattering away in its attacks upon one grain of corn after another as we passed. Half a dozen or more parties were sitting around awaiting their turns, and others passed and met, lugging in their sacks upon their shoulders. Soon after crossing Horse Lick we came to the main river, and were encouraged by evidences that it had not been materially affected by the rain; but a few hundred yards on, Hig cried: "I told you so," pointing to muddy water. The encouragement afforded us by sight of the cold water was momentarily banished, but Mack's observing eye soon took in the surroundings, and he correctly attributed it to drainage from a cornfield above.

By this time the clouds had dispersed and old Sol beamed upon us with a fervency which threatened to inflame, till our umbrellas were unlimbered and whirled into position. Two miles above Horse Lick we reached the confluence of Middle and South Forks, where appearance supported Hig's prophecy that the muddy water would greet us, for Middle Fork was concealed from view by an intervening chapparral, while a long stretch of the South was visible thick with mud. No cornfield offered an explanation of that, and a repetition of that "I told you so" silenced the crowd, till round the next turn in the road was disclosed to our delighted vision a limpid little river whose charming features elicited from one of the party the unanimously approved exclamation, "The loveliest stream that I ever saw and the water just right."

Our spirits rapidly crept up to that graduation of the scale which is denominated enthusiasm, and the first experiment upon Ben with our supply of the spirit sustaining article was made. He declined, but Hig and I joined in a "here's to the Middle Fork." The team was severely blown, and we had no alternative but to drag slowly, wearily and perspiring along cheered by Mack's monotonous hum of something about "Ben's level, shady road," which needed but a cornstalk fiddle accompaniment to bring his music up to a standard which would warrant its comparison in point of melody with the grasshopper. Just before "high twelve" we were in sight of the judge's farm, the most extensive in all that region. For nearly a mile nature has provided him a line of fence which fills every requirement of the Granger standard, it being a perpendicular bluff of rock, forty to sixty feet high, which is undoubtedly pig tight, horse high, and bull strong. However, the owner has met those requirements about the other three sides of his inclosures with worm fences of square white oak rails, and the evidence of neat, thrifty farming proclaimed the judge a good liver.

At last from the crest of a small knoll Ben pointed out our destination, and the hay-harvesters were seen leisurely approaching the spacious farm house for their mid-day meal. We were recognized as the expected party of fishermen as soon as seen, and met at the stile with a cheerful greeting and cordial "Alight and make yourselves at home." There was little agility displayed in alighting, for our five and a half hours shake-up had about converted us into gelatinous masses of muscular rheumatism, but we made it on to the front porch, and I left our Ben to unload the wagon, while we attended to the formality of introductions, and stretched our legs.

Discussion of fishing was the next thing after a refreshing, and the farm hands were divided in opinion as to our prospects of killing many fish, but all agreed that we need have no uneasiness about easily procuring an ample supply of minnows or about the waters becoming too muddy, for they had never seen it so. In fact, till two years ago the highest rises were perfectly clear and a catfish had never been caught. We were happy. A description of an extraordinarily large copperhead, which Hig espied coiled upon a bed of leaves within three feet of our wagon track, and translated to the happy crawling grounds of all good snakes, with a missile from a Smith & Wesson 33, would have suggested the antidote to a snake bite, had a reminder been necessary, but that toddy before dinner was assured. It was passed first to Ben. He informed the compounder that he rarely drinks anything just before eating, unless very tired, and as he had ridden the last two hours, believed he didn't want any. "You fellers hairt got much nohow," was his concluding apology for not joining us.

When mention was made that we should need some one to catch minnows for us, one of the harvesters volunteered the information that he hadn't cut any hay before that morning for two years, and was about used up, which declaration was promptly classified with Ben's, about the pint which he intended to get, and that weary scythe-slinger with approval of his employer, had soon bolted a hasty dinner, shouldered the seine, and started briskly for a neighbor a mile away, to handle the staves. After a hasty dinner, we leisurely rigged our rods while enjoying a post-prandial cigar under the old shade trees in front of the house, and discussed the programme. We left home prepared to purchase a canoe, and fish back to the depot; but were forced to abandon the cruise, from the fact that all the vessels which navigated those waters had been wreathed from their papaw and hickory-bark mooring, and carried off by icebergs, on a rise last spring; consequently, Ben was engaged to have his wagon at the Judge's at a certain hour, as we knew that nothing ornamented with springs lighter than a peddler's wagon could stand the racket of the road we had traveled.

Through necessity we agreed to make the Judge's headquarters, and content ourselves to put in the time bank-fishing principally.

Our host accompanied us to the river, about three hundred yards from the house, and we seated ourselves in the shade

—beside a little spring, whose waters needed no ice to make the teeth ache—to await the coming of the bait-catchers. They soon arrived with an ample supply of choice minnows, and we cheerfully followed our guide half a mile up stream to a celebrated hole. We passed many where the temptation to make a cast was almost irresistible, but plodded on till the favorite was reached; and soon half a dozen reel poles were set out at different points, and the entire party seated in a shade awaiting the announcement of a bite by the clicks of our "Mesks."

It was scarcely three p. m., and we were on the rise. The heat was almost intolerable at the margin of the water, and the first half hour without a nibble was most agreeably passed under a beach tree, in enjoyment of the Judge's narrative of numerous sporting incidents connected with his thirty-nine years residence upon that *agria iniquita* to fishermen who use a reel. We discovered that nearly every pool, ford and shoal of the river has received a name from some individual or incident connected with its local history, and that they are not only as readily recognized by residents by names, as are the streets of a city by its police, but as familiarly mentioned by name as are their neighbors.

The one at which we were located is the Parish Hole, named for an old pioneer angler, who long years ago sprang from his favorite seat upon a huge rock, a distance of ten feet, into the water and captured with his hands a twenty-five pound salmon which broke his line after he had succeeded in leading him almost ashore. The music of a click brought us all suddenly to a perpendicular and Mack rushed to his rod to find that the game had let go, and his minnow was dead.

That symptom was amazingly inspiring, and Hig nimbly waded to the opposite bank, whilst I pulled up and moved to a point below, where I knew there must be sport in store, leaving Mack and the Judge *in statu quo*.

Isaac Jackson Tussey, a nine years old, black-eyed, hatless native lad, whose features resembled a fox's, and whose suit of coarse black hair, closely shorn and admirable stair stepped, cut by mother, is certainly the thickest growth I ever saw upon a human head, accompanied me, carrying my minnow bucket in one hand and his short papaw pole and homespun line in the other.

As we proceeded, Isaac's tongue began its first wagging after our meeting, and his first remarks were to the effect that he was the best fisherman for a boy in all that country. He declared that he had never missed a fish in his life, and had always wanted "one of them there things," referring to my reels, and knowing that he could catch plenty of big fish if he had one. It Isaac meant that he would gratefully accept one as a present the hint wasn't appreciated. We inclined to suspect the juvenile, as not one of the natives approached us directly with a request, but in justice to them be it said a natural and easy politeness was characteristic of every one that we met.

When I had arranged my rods satisfactorily I conducted Isaac Jackson to a safe distance, and encouraged him to go for the sunfish and little goggle eyes. A lively tug at his hook soon invited a jerk which sent it whizzing into the branches of a tree in his rear, and Isaac had, for the first time in his life, jerked without catching a fish. He appreciated the situation, and without an effort to loosen the hook, automatically turned and looked me squarely in the face with what I imagine the dazed expression of that youthful celebrity whom the calf kicked—presumably the same boy who let the bird go. I have not indulged very extensively in teasing children since I almost severed the left thumb with a keen pointed barlow in imitation of a feint I had seen made of plunging a knife into a boy, and I aided Isaac in disentangling his line without an intimation that I remembered his introductory observations.

Isaac was himself, after half a dozen more ineffectual efforts to hook the bait stealer, and naturally referred his disgrace to the hook, in which I agreed, and proposed that he hurry to the spring and bring me a bucket of fresh water whilst I put on a good hook. The water was at my side by the time I had strung my first fish, a half pound goggle-eye, and looped a choice Kirby to his line.

A handsome sunfish rewarded Isaac's industry at next jerk, and "I knowed that I couldn't catch nuthin' with that darned old fly-hook" was uttered with the exultation of Hig's first "I told you so." About an hour after we had taken position the Judge joined his namesake and myself, and informed us that Mack had a pair of fifteen-inch black bass on his string when he left him.

He confidently informed me that the vigor with which the first pulled out the line and made the click buzz, excited the old angler of 40 years' experience into a tremor, which culminated in a case of regular old fashioned bucke ague when the game was hooked and began fighting valiantly for liberty; and that the second was transferred to the string at the expense of a recurrence of the ague in a modified form. As we were half a day's journey from an ice-house, and had before sunset captured as many as could be consumed at supper and breakfast, we "pulled up" and reached the house in time to dress our fish and have a dish served at supper. The hostess kindly inquired in what manner we preferred them cooked, but that was left to her convenience and discretion, and within half an hour of the time the first fish was taken from the strings, killed and dressed, we were summoned to a meal, who e appetizing features need no further elaboration to a Kentucky fisherman than mention of the dishes. Fish hot, literally "browned to a turn;" warm, short, hot cakes; hot, amber-colored coffee, whose aroma would be favorably conspicuous in a collection of handkerchief extracts; firm yellow butter; cold sweet milk, whose relationship to cream was not traditional, and transparent mountain honey in the comb. The *epice divit* of some responsible acquaintance who has been there, would scarce suffice to convince us that the fabled feasts of the gods were more deliciously tempting to a mortal than our first supper on Middle Fork. Oblivious of forenoon hardships, jolts and fatigue, the hours till ten o'clock glided by in enjoyment of the weed and our host's recital of numerous exploits of forest and stream.

In the early years of his residence there he not infrequently brought in a black bear as a trophy of the hunt, and deer were as plentiful as squirrels are now. The bear, beaver and panther are no longer found, but wildcats, foxes, raccoons and turkeys are plentiful; a deer can be started almost any day within two or three miles, and an otter is occasionally captured upon the river bank. Till the passage of our State fish law, and consequent removal of traps and nets, the natives relied principally upon them for their supplies of fish; but the law is scrupulously observed, and pole and pug-fishing are the only modes practiced.

Wednesday morning we were up with the dawn, good as new from a night's refreshing sleep on beds of down, between immaculate sheets, and the rising sun found us acting upon the early-bird theory, after paying our hosts the gratifying compliment to her breakfast of leaving little or nothing

for the cook and waiters. 'Twas eight o'clock before the first alarm was sounded, and Hig declared that he was convinced of the correctness of the Judge's advice to wait till the morning sunshine touches the stream before pushing off, and should certainly not outrage Somnus by springing from that feathery paradise next morning at the first cock-crow.

There were but two dug-outs within our reach, both of which were kindly placed at our disposal, but they were too clumsy to be hauled over all the shoals, and we hadn't a pair of wading boots in the party, consequently were compelled to get them into the most convenient position. The larger is as steady as a scow, but had not been completed, and its bottom of five inches in thickness rendered it laborious to paddle it on still water even, and impossible to float it out of the mile stretch of deep water upon which it had been launched. The smaller had been dug out of a comparatively small poplar tree, and the only labor in shaping the outside was the removal of the bark and rounding the ends; consequently the loss of a jaw-tooth from one side renders a landlubber's maintenance of its equilibrium, when afloat in that vessel, next to an impossibility. Mack and I had it brought up and ventured to cross in it, where we could see bottom plainly, but Hig declined the experiment. When tired of bank fishing we repaired to the big canoe and water, and began a cruise of exploration which disclosed indications that we thought could discount the pools from which we had taken many fine, gamy fish.

A large rock emerging from the water near a bank, on which were half a dozen saplings, which had been used for rods, encouraged us to "set out." While we walked up the river to a resident's well of limestone water, at which we proposed spreading lunch, we found that the reported distance had been computed by the coon skin standard, which is to "measure with the hide and throw in the tail," and Mack was the individual to both propose the walk, and before the house was sighted, to urge that we turn back, but that was one of chances to pay an instalment upon the debt he owed us for Hig's opposition to his various propositions, and he determinedly pushed ahead, crying "Come on, come on!" and we warily came. Three instead of one-half miles were walked before we found the house, but a quaff from the "old broken bucket which hung in the well," made our hearts glad, and the addition to our supplies of a pitcher of cold sweet milk, on which the cream r-maries, and a plate of brittle onions that had been pulled from the bed that morning, and placed in a vessel of water, contributed largely to the inner man comforts. Realization that we were nearly two miles from about one hundred dollars worth of fishing tackle without a picket guard stimulated us to a speedy return. Everything was just as we left, except that one snail had been hopelessly entangled by the minnow, and was sacrificed to a speedy change of base. We moved quietly over a sunken drift, and hooked five salmon within fifteen minutes without succeeding in landing one. Hig brought one of about three feet in length plainly to view upon the surface. In his efforts to prevent entanglement in the network of logs we had discovered to exist a few feet beneath, but his rig was too light for the struggle, and the fish gained its haunts and his liberty. It was disheartening, but we lingered, despite conviction that to land even a three-pounder into a landing net there was impossible. After half-an-hour's waiting in vain for a renewal of the fun, Mack requested to be put ashore, that he might find a place where chances were equal, and Hig and I resolved upon adoption of the same, except we put Mack out and stuck to the canoe. We counted ourselves in luck, for scarcely had we located before Hig captured a valiant pound and a half bass, and Hig's supposed whale of the stream had seized my minnow and darted for the middle of the river. I paid out the line till there was apprehension that the 150 feet would be insufficient, but was soon relieved of the apprehension by discovering that he was making back. The line was cautiously pulled in till the float popped up within twenty feet of the canoe, danced about a few moments, and again disappeared, when Hig exclaimed "jack! a jack!" from which I dissented, but was puzzled to conjure what was. Tightening on him a vigorous pull imbedded the hook, and the fight began. His dropped his rod, seized the landing net, and moved to a convenient position to give aid, in the meantime offering valuable advice as to the management of what he clearly saw was a whopper. Just here I must add that my companion has given me my first lessons in angling for game fish, and his advice was recognized as valuable, though deemed superfluous from frequent repetition.

My nine foot Japanese nine-sixteenths in diameter but, seemed taxed beyond its capacity to keep him from the log alongside which lay the canoe, and for which the fish was struggling, but successfully without the strain, though the tip was frequently brought almost in contact with the bait. Hig still contended that it was a jack, but I argued from the comparative sluggishness of his runs that it could not be. At last he showed himself plainly, dropped off the hook, and disappeared. What was it? An infernal channel cat of about three inches length.

Hig fell back upon his seat and roared like a managrie on a spire, till he was speechless from confusion, though I at first contended that it was a large eye running with my minnow, and declared that it was not a jack whilst I was hauling him. Still I couldn't see just where the laugh came in. Within twenty minutes I enjoyed a repetition of the excitement of a good bite, and the luxury of taking the wind out of Mr. Higgin's sails by successfully leading a four pound bass into the landing net after a prolonged fight, without the slightest evidence that the fellow would ever give up. My companions declare that in all their long experience they never handled such gamy fellows as those of the Middle Fork.

After carefully unhooking and returning to their native element all the small fry, we daily took as many choice graylings and black bass as the large family could consume, deeming anything lighter than a half-pounder too small to go on a string.

As all our sport was near the "big road," we arrested the attention of every traveler, and enjoyed a confab with every passer-by. All expressed surprise that we should have chosen July to go fishing, and advised us to return after the first white frost if we wish to catch big jack and salmon, and being thoroughly imbued with that very wish, we made arrangements then and there for a return in October. Every fellow scolded a vow to make the trip from Livingston to the judge's horseback or afoot, if the fates held in store for him the felicitous enjoyment of killing a few of those varieties of which even the nonglerings afford sport.

The day Ben was to return for us, Hig, and I left instructions that he be sent up the river with the wagon, as we proposed going nearly two miles from the house to put in the few remaining hours, whilst Mack took his favorite rod, a small bucket of minnows and fished down till he met our wagoner. Failing to get a bite at our salmon drift, we put a native youth at the paddle, and crept quietly along the bank

capturing a bass every few yards. It, was in the prow, and caught every fish that was taken, the undersigned not having occasion to use the second minnow that forenoon. As the clatter of the wagon could not be heard at noon, we concluded that Mack had persuaded Ben to put up and feed his horses and let us walk back—which which we knew him capable—so we gave our catch to the oarsman for his services, hastily packed up and started back heavily loaded with traps picked up at points along the bank, where they had been left for convenience and remained uninterrupted except by our orders since the afternoon of our arrival. We were unjust to Mack, for the wagon was heard coming before we came in sight of the house, but met too near the yard fence to be of any service. We found dinner steaming upon the table, and discovered that Mack had killed enough good ones for that meal, and gotten in soon enough to have them served. Ben had the freight loaded, and steam up by two o'clock, and when he yelled "All aboard!" we had bidden adieu to our big hearted host and family, and were prepared for the jolt.

"Thinking to surprise us by a wonderful improvement in seats, Ben had seriously aggravated the abominations of that road by substituting chairs for the cross-plank seats on which we rode up, and the fearful recklessness with which we slipped about, jeopardizing legs, buckets and rods, demanded that a halt be called, bark procured, and those chairs seemed to the sides of the wagon bed. Whether or not Ben was so imprudent as to come off again without a pint, was not ascertained; but he didn't forget to bring his diminutive boy of six years, "just to please him," and, as it turned out, to keep us in constant dread of unavoidably giving occasion for a first class funeral at Ben's, by crushing the life out of the boy.

We were returned to Livingston in thirty minutes less time than it required Ben to take us up.

Aside from the wagon rides, our trip was a delightful one, which we hope to repeat annually for the next hundred years, and hope those few lines may find the editors and unnumberless readers of the F. & S. enjoying a similar blessing.

KYIAN.

INTRODUCTION AND SUCCESSION OF VERTEBRATE LIFE IN AMERICA.\*

By PROF. O. C. MARSH.

PRESIDENT OF THE BIOLOGICAL SECTION OF THE AMERICAN ASSOCIATION.

SEVENTH PAPER.

IN this rapid review of Mammalian life in America, from its first known appearance in the Trias down to the present time, I have endeavored to state briefly the introduction and succession of the principal forms in each natural group. If time permitted, I might attempt the more difficult task of trying to indicate what relation these various groups may possibly bear to each other; what connection the Ancient Mammals of this continent have with the corresponding forms of the Old World; and, most important of all, what real progress Mammalian life has here made since the beginning of the Eocene. As it is, I can only say in summing up, that the Mammals are clearly the remnants of a very ancient fauna, which occupied this continent millions of years ago, and from which the other Mammals were doubtless all derived, although the direct evidence of this transformation is wanting.

Although the Marsupials are nearly related to the still lower Monotremes, now living in the Australian Region, we have as yet no hint of the path by which the two groups became separated from the inferior vertebrates. Neither have we to-day much light as to the genetic connection existing between Marsupials and the placental Mammalia, although it is possible that the different orders of the latter had their origin each from a separate group of Marsupials.

The presence, however, of undoubted Marsupials in our lower and middle Eocene, some of them related to the genus *Didelphus*, although remotely, is important evidence as to the introduction of these animals in America. Against this their supposed absence in our Miocene and Pliocene can have but limited weight when taken in connection with the fact that they flourished in the Post-Tertiary, and are still abundant. The evidence we now have is quite as strongly in favor of a migration of Marsupials from America to the Old World, as the reverse, which has been supposed by some naturalists.

Possibly, as Huxley suggested, both countries were peopled with the low Mammals from a continent now submerged.

The Edentate mammals have long been a puzzle to Zoologists, and up to the present time no clew to their affinities with other groups seems to have been detected. A comparison of the peculiar Eocene Mammals, which I have called the *Tillodontia*, with the least specialized Edentates, brings to light many curious resemblances in the skull, teeth, skeleton and feet. These suggest relationship, at least, and possibly we may yet find here the key to the Edentate genealogy. At present, the *Tillodonts* are all from the lower and middle Eocene, while *Moropus*, the oldest edentate genus, is found in the middle Miocene, and one species in the lower Pliocene.

The Edentates have been usually regarded as an American type, but the few living forms in Africa, and the Tertiary species in Europe, the oldest known, have made the land of their nativity uncertain. I have already given you some reasons for believing that the Edentates had their first home in North America, and migrated thence to the southern portion of the continent. This movement could not have taken place in the Miocene period, as the Isthmus of Darien was then submerged; but near the close of the Tertiary, the elevation of this region left a much broader strip of land than now exists there, and over this, the Edentates and other mammals made their way, perhaps urged on by the increasing cold of the glacial winters. The evidence to-day is strongly in favor of such a southern migration. This, however, leaves the Old World Edentates, fossil and recent, unaccounted for; but I believe the solution of this problem is essentially the same, namely, a migration from North America. The Miocene representatives of this group, which I have recently obtained in Oregon, are older than any known in Europe, and, strangely

enough, are more like the latter and the existing African types than like any of our living species. If, now, we bear in mind that an elevation of only 150 feet would, as Dana has said, close Behring's Straits, and give a road thirty miles wide from America to Asia, we can easily see how this migration might have taken place. That such a Tertiary bridge did exist, we have much independent testimony, and the known facts all point to extensive migrations of animals over it.

The *Cetacea* are connected with the marine Carnivores through the genus *Zenaidura*, as Huxley has shown, and the points of resemblance are so marked that the affinity cannot be doubted. That the connection was a direct one, is hardly probable, since the diminutive brain, large number of simple teeth, and reduced limbs in the *Whales*, all indicate them to be an old type, which doubtless branched off from the more primitive stock leading to the Carnivores. Our American extinct *Cetaceans*, when carefully investigated, promise to throw much light upon the pedigree of these strange mammals. As most the known forms were probably marine, their distribution is of little service in determining their origin.

That the *Sirians* are allied to the *Ungulates*, is now generally admitted by anatomists, and the separation of the existing species in distant localities suggests that they are the remnants of an extensive group, once widely distributed. The large number of teeth in some forms, the reduced limbs and other characters, point back to an ancestry near that of the earliest *Ungulates*. The gradual loss of teeth in the specialized members of this group, and in the *Cetaceans*, is quite parallel with the same change in *Edentates*, as well as in *Pterodactyls* and *Birds*.

The *Ungulates* are so distinct from other groups that they must be one of the oldest natural divisions of mammals, and they probably originated from some herbivorous marsupial. Their large size, and great numbers during Tertiary and Post-Tertiary time, render them most valuable in tracing migrations induced by climate, as well as in showing the changes of structure which such a contest for existence may produce.

In the review of the extinct *Ungulates*, I have endeavored to show that quite a number of genera usually supposed to belong originally to the Old World are in reality true American types. Among these were the *Horse*, *Rhinoceros* and *Tapir*, all the existing odd toed *Ungulates*, and besides these the *Camel*, *Pig* and *Deer*. All these I believe, and many others, went to Asia from our Northwest Coast. It must, for the present, remain an open question whether we may not fairly claim the *Boobies*, and even the *Proboscidea*, since both occur in our strata at about the same horizon as on the other continent. On this point there is some confusion, at least in names. The Himalayan deposits called Upper Miocene, and so rich in *Proboscidea*, indicate in their entire fauna that they are more recent than our *Niobrara River* beds, which, for apparently good reasons, we regard as Lower Pliocene. The latter appear to be about the same horizon as the *Pikermi* deposits in Greece, also regarded as Miocene. Believing, however, that we have here a more complete Tertiary series, and a better standard for comparison of faunas, I have preferred to retain the names already applied to our divisions, until the strata of the two continents are more satisfactorily co-ordinated.

The extinct *Rodents*, *Bats* and *Insectivores* of America, although offering many suggestive hints as to their relationship with other groups and their various migrations, cannot now be fully discussed. There is little doubt, however, that the *Rodents* are a New World type, and, according to present evidence, they probably had their origin in North America. The resemblance in so many respects of this order to the *Proboscidea* is a striking fact, not yet explained by the imperfectly known genealogy of either group.

The *Carnivores*, too, I must pass by, except to call attention to a few special forms which accompanied the migrations of other groups. One of these is *Mochaironius*, the saber-toothed Tiger, which flourished in our Miocene and Pliocene, and followed the huge *Edentates* to South America, and the *Ungulates* across Asia to Europe. With this genus went *Hyaenodon*, and some typical *Wolves* and *Cats*, but the *Bears* came the other way with the *Antelopes*. That the *Gazelle*, *Giraffe*, *Hippopotamus*, *Ihyaena* and other African types, once abundant in Asia, did not come, is doubtless because the Miocene bridge was submerged before they reached it.

The *Edentates*, in their southern migration, were probably accompanied by the *Horse*, *Tapir* and *Rhinoceros*, although no remains of the last have yet been found south of Mexico. The *Mastodon*, *Elephant*, *Llama*, *Deer*, *Pecary*, and other mammals, followed the same path. Why the *Mastodon*, *Elephant*, *Rhinoceros*, and especially the *Horse*, should have been selected with the large *Edentates* for extinction, and the other *Ungulates* left, is at present a mystery, which their somewhat larger size hardly explains.

The relations of the American primates, extinct and recent, to those of the other hemisphere, offer an inviting topic, but it is not in my present province to discuss them in their most suggestive phases. As we have here the oldest and most generalized members of the group, so far as now known, we may justly claim America for the birth-place of the order. That the development did not continue here until it culminated in *Man*, was due to causes which at present we can only surmise, although the genealogy of other surviving groups gives some data toward a solution. Why the Old World Apes, when differentiated, did not come to the land of their earlier ancestry, is readily explained by the then intervening oceans, which likewise were a barrier to the return of the *Horse* and *Rhinoceros*.

*Man*, however, came; doubtless first across Behring's Straits; and at his advent became part of our fauna, as a mammal and primate. In these relations alone, it is my purpose here to treat him. The evidence, as it stands to-day, although not conclusive, seems to place the first appearance of *Man* in this country in the Pliocene, and the best proof of this has been found on the Pacific coast. During several visits to that region, many facts were brought to my knowledge which render this more than probable. *Man* at this time was a savage, and was doubtless forced by the great volcanic outbreaks to continue his migration. This was at first to the south, since mountain chains were barriers on the east. As the native *Horses* of America were now all extinct, and as the early *man* did not bring the Old World animal with him, his migrations were slow. I believe, moreover, that this slow progress toward civilization was in no small degree due to this same cause—the absence of the *Horse*.

It is far from my intention to add to the many theories extant in regard to the early civilizations in this country, and their connections with the primitive inhabitants, or the later Indians, but two or three facts have recently come to my knowledge which I think worth mentioning in this connection. On the *Columbia River*, I have found evidence of the former existence of inhabitants much superior to the Indians at present there, and of which no tradition remains. Among many

stone carvings which I saw there, were a number of heads which so strongly resemble those of Apes, that the likeness at once suggests itself. Whence came these sculptures, and by whom were they made? Another fact that has interested me very much is the strong resemblance between the skulls of the typical *Monad-builders* of the *Mississippi Valley* and those of the *Pachlo Indians*. I had long been familiar with the former, and when I recently saw the latter, it required the positive assurance of a friend who had himself collected them in *New Mexico*, to convince me that they were not from the mounds. A third fact, and I leave *Man* to the *Archaeologists*, on whose province I am even now trenching. In a large collection of *Mound-builders* pottery, over a thousand specimens, which I have recently examined with some care, I found many pieces of elaborate workmanship so nearly like the ancient water-jars from *Peru*, that no one could fairly doubt that some intercourse had taken place between the widely separated people that made them.

The oldest known remains of *Man* on this continent differ in no important characters from the bones of the typical *Indian*, although in some minor details they indicate a much more primitive race. These early remains, some of which are true fossils, resemble much more closely the corresponding parts of the highest Old World Apes, than do the latter our Tertiary Primates, or even the recent American Monkeys. Various living and fossil forms of Old World Primates fill up essentially the latter gap. The lesser gap between the primitive *Man* of America and the *Anthropoid Apes* is partially closed by still lower forms of men, and doubtless also by higher Apes, now extinct. Analogy, and many facts as well, indicate that this gap was smaller in the past. It certainly is becoming wider now with every generation, for the lowest races of men will soon become extinct, like the *Tasmanians*, and the highest Apes cannot long survive. Hence the intermediate forms of the past, if any there were, become of still greater importance. For such missing links, we must look to the caves and later Tertiary of Africa, which I regard as now the most promising field for exploration in the Old World. America, even in the Tropics, can promise no such inducements to ambitious explorers. We have, however, an equally important field, if less attractive, in the *Cretaceous Mammals*, which must have left their remains somewhere on this continent. In these two directions, as I believe, lie the most important future discoveries in *Paleontology*.

As a cause for many changes of structure in mammals during the Tertiary and Post-Tertiary, I regard, as the most potent, *Natural Selection*, in the broad sense in which that term is now used by American evolutionists. Under this head, I include not merely a *Malthusian struggle* for life among the animals themselves, but the equally important contest with the elements, and all surrounding nature. By changes in the environment, migrations are enforced, slowly in some cases, rapidly in others, and with change of locality must come adaptation to new conditions, or extinction. The life-history of Tertiary mammals illustrates this principle at every stage, and no other explanation meets the facts.

The real progress of mammalian life in America from the beginning of the Tertiary to the present, is well illustrated by the *Brain-growth*, in which we have the key to many other changes. The earliest known Tertiary mammals all had very small brains, and in some forms this organ was proportionally less than in certain Reptiles. There was a gradual increase in the size of the brain during this period, and it is interesting to find that this growth was mainly confined to the cerebral hemispheres, or higher portion of the brain. In most groups of mammals, the brain has gradually become more convoluted, and thus increased in quality, as well as quantity. In some, also, the cerebellum, and olfactory lobes, the lower parts of the brain, have even diminished in size. In the long struggle for existence during Tertiary time, the big brains won, then as now; and the increasing power thus gained rendered useless many structures inherited from primitive ancestors, but no longer adapted to new conditions.

Another of the interesting changes in mammals during Tertiary time was in the teeth, which were gradually modified with other parts of the structure. The primitive form of tooth was clearly a cone, and all others are derived from this. All classes of vertebrates below mammals, namely, *Fishes*, *Amphibians*, *Reptiles*, and *Birds*, have conical teeth, if any, or some simple modification of this form. The *Edentates* and *Cetaceans* with teeth retain this type, except the *Zenaidurons*, in the higher mammals, the incisors and canines retain the conical shape, and the premolars have only in part been transformed. The latter gradually change to the more complicated molar pattern, and hence are not reduced molars, but transition forms from the cone to more complex types. Most of the early Tertiary mammals had forty-four teeth, and in the oldest forms the premolars were all unlike the molars; while the crows were short, covered with enamel, and without cement. Each stage of progress in the differentiation of the animal was, as a rule, marked by a change in the teeth; one of the most common being the transfer, in form at least, of a premolar to the molar series, and a gradual lengthening of the crown. Hence, it is often easy to decide from a fragment of a jaw, to what horizon of the Tertiary it belongs. The fossil *Horses* of this period, for example, gained a grinding tooth, for each toe they lost, one in each epoch. In the single-toed existing horses, all the premolars are like the molars, and the process is at an end. Other dental transformations are of equal interest, but this illustration must suffice.

The changes in the limbs and feet of mammals during the same period were quite as marked. The foot of the primitive mammal was doubtless plantigrade, and certainly five-toed. Many of the early Tertiary forms show this feature, which is still seen in some existing forms. This generalized foot became modified by a gradual loss of the outer toes, and increase in size of the central ones; the reduction proceeding according to systematic methods, differing in each group. Corresponding changes took place in the limb bones. One result was a great increase in speed, as the power was applied so as to act only in the plane of motion. The best effect of this specialization is seen to-day in the *Horse* and *Antelope*, each representing a distinct group of *Ungulates*, with five-toed ancestors.

If the history of American Mammals, as I have briefly sketched it, seems as a whole incomplete and unsatisfactory, we must remember that the genealogical tree of this class has its trunk and larger limbs concealed beneath the *debris* of *Mesozoic* time, while its roots doubtless strike so deeply into the *Paleozoic* that for the present they are lost. A decade or two hence, we shall probably know something of the mammalian fauna of the *Cretaceous*, and the earlier lineage of our existing mammals can then be traced with more certainty.

The results I have presented to you are mainly derived from personal observation; and since a large part of the higher

\* Delivered before the American Association for the Advancement of Science, at Nashville, Tenn., Aug 31, 1877.

vertebrate remains found in this country have passed through my hands, I am willing to assume full responsibility for my presentation of the subject.

For our present knowledge of the extinct Mammals, Birds and Reptiles of North America, science is especially indebted to Leidy, whose careful, conscientious work has laid a secure foundation for our vertebrate palaeontology. The energy of Cope has brought to notice many strange forms, and greatly enlarged our literature. Agassiz, Owen, Wyman, Baird, Hitchcock, Deane, Emmons, Lea, Allen, Gibbes, Jefferson, DeKay, and Harlan, deserve honorable mention in the history of this branch of science. The South American extinct vertebrates have been described by Lund, Owen, Burmeister, Gervais, Huxley, Flower, Desmarest, Aymard, Pictet, and Nodot. Darwin and Wallace have likewise contributed valuable information on this subject, as they have on nearly all forms of life.

In this long history of ancient life I have said nothing of what Life itself really is. And for the best of reasons, because I know nothing. Here at present our ignorance is dense, and yet we need not despair. Light, Heat, Electricity, and Magnetism, Chemical Affinity and Motion, are now considered different forms of the same force; and the opinion is rapidly gaining ground that Life, or vital force, is only another phase of the same power. Possibly the great mystery of Life may thus be solved, but whether it be or not, a true faith in Science admits no limit to its search for Truth.

## Fish Culture.

OFFICE OF FISH COMMISSIONERS,  
STATE OF MINNESOTA.

ST. PAUL, Minn., Oct. 17, 1877.

EDITOR FOREST AND STREAM:

I want to tell you of a nice little trip Dr. Sweeney, our other State Fish Commissioner, and myself had in visiting the fish hatcheries of Illinois and Michigan.

We left St. Paul October 1, and with the kind courtesy of the West Wisconsin and North Western Railroad we were hurried over the best and smoothest road I ever traveled on. We were dropped off at Elgin, Illinois, where we were met by a dear friend, Dr. W. A. Pratt, Fish Commissioner, and a beautiful carriage, and were soon driven to a beautiful residence, about two miles from Elgin. It then being too dark to distinguish the beauties of the grounds, we were entertained magnificently by our friend and family. In the morning we rose bright and early, and visited the State Fishery and its beautiful surroundings, and I tell you it is not to be sneezed at. It is the best place I have seen for the purpose it is assigned. After tiring ourselves in that romantic glen, our friend, Dr. W. A. P., suggested accompanying us to the Michigan hatchery. At Niles, we were met by that good and jolly gentleman, George Jerome, Superintendent of Fisheries, and in the same beautiful style as before were soon landed at the handsome residence and grounds of our kind friends, where we were received in hospitable style by the family, and in a short time we were as old friends. After partaking of the luxuries awaiting us, we were shown over the City of Niles, which certainly exceeded my expectations. The State Fishery being about six miles from Niles, the visit was postponed until the next day. After being shown the sights, it was moved and carried that we return to our friend's residence, where we sojourned for the night. I think any one could make himself happy in George Jerome's company. He is the jolliest and best natured man I ever met, and a thorough fish man. In fact I found all the fish men exceedingly courteous and ever ready to converse on the latest and best labor-saving improvements in hatching fish, and the best adapted for the different waters. On the whole, I had as pleasant and successful a trip as I ever had in my life. I think I will let loose, as I am tired and expect I will tax your time too much to read it. Yours, most respectfully,

WILLIAM GOLCHER, Fish Commissioner.

P. S.—I forgot to mention our visit to the Michigan Hatchery. It is a beautiful place, nicely laid out, and well stocked with all kinds of fishes. I think the hatchers surpass all them all, and the superintendent most experienced in the business. W. G.

We have no doubt that Brother William had a most delightful trip. For his edification, we may state, with full consciousness of our powers of discernment and knowledge of human character, as well as by the testimony of Professor Agassiz, that the courtesy, attributes and general qualifications which William so much admires in the fishermen he met is due to the brain power obtained by the phosphorus contained in the fish.—Ed.

N. B.—When William was hurried over the best and smoothest road, etc., he must have felt like a cricket-ball delivered by a Powers or Talbot.

GROWTH OF TROUT.—The venerable Dr. Garlick has been pleased to send us the following communication with regard to Mr. Hasbrouck's "seven-inch trout":

BEDFORD, Ohio, Oct. 14, 1877.

EDITOR FOREST AND STREAM:

A word on the "rapid growth of trout." You may rely upon it that no young fry of the brook trout ever made such a growth as stated in your last paper. That seven-inch trout I have no doubt was probably three years old, and I should not be surprised if he were a five-year-old. If that record did time the stream, a "remnant was saved," no doubt, and the trout seen in that stream on the 30th of September were natives of that stream. I have hatched and reared many thousands of brook trout, and I do not think I ever had a yielding trout that measured over three inches in length. Our trout were always kept in small spring pools until the yolk sac was absorbed, and they were then placed in our upper and smallest of the three ponds, where they remained one year, when they were run out into the second and larger pond by means of a sluice, and the following year they were run into the third and largest pond, and by these means I could always know the exact size of all the trout we had.

Trout grow very slowly until they are two years old. In this respect they are unlike many other kinds of fish, some of which arrive at maturity in a year.

To what a wonderful magnitude has the discovery of artificial breeding of fish arrived. It surprises me to read the accounts of the hatcheries. Though I did predict it, in the first paper I read, many years since, still it surprises me, and yet how many unimproved pieces there are. How many farmers have nice places, which, with a little expense, could have at all times all the fresh fish needed. Wishing you all the success you deserve, I am yours truly,

T. GARLICK.

STOCKING THE STREAMS OF NEW HAMPSHIRE.—The Manchester *Mirror* of Oct. 20th, says:

Since the first of May last 2,000 landlocked salmon have been put into Tri-Echo Lake, in Milton; 1,000 into Lovewell's Pond, in Wakefield. The following ponds, lakes and rivers have been stocked with black bass, averaging thirty-six to each pond, and weighing on an average three-quarters of a pound each: Polley Pond, Salem; Wash Pond, Hampstead; Province Pond, Wakefield and Eppingham; Ayer's Pond, Barrington; Jones Pond, Raymond; Pennichuck Pond, Merrimack; Reservoir, Kittery Navy Yard; Cocheo River, Rochester; Silver Lake, Madison; Chocoma Lake, Tamworth; Colos Pond, Somersworth; New Durham River, New Durham; Half Moon Pond, Alton; Reed's Pond, Merrimack; Mendum's Pond, Barrington and Nottingham; White Pond, Tamworth; Pawtuckaway Pond, Nottingham; Carpenter's Pond, Epping; Harvey Pond, Northwood; Suncook Pond, Northwood; Pinkham's Pond, Barnstead; Suncook Pond, Barnstead; Reservoir Pond, Middletown; Great Ossipee Lake, Ossipee. Reserving some of the best lakes and ponds for land-locked salmon, trout, white perch and pike perch, which we intend to introduce during the fall, winter and spring.

Yours respectfully,  
LUTHER HAYES.  
South Milton, N. H., Oct. 10, 1877.

SHAD IN LAKE ONTARIO.—Syracuse papers of the 16th instant are congratulating Mr. Seth Green upon accumulating evidence of his success in cultivating shad in Lake Ontario. Very recently a fine male shad, weighing 5½ pounds, was caught in a gill net six or seven miles out in Lake Ontario, off Port Ontario, at the mouth of Salmon River. The fish is the largest of its kind yet caught in the lake, and is one of those placed in its waters by Mr Green in the year 1872. The attempt to introduce the fish in fresh water was an experiment. It is now no longer in the list of experiments, but a matter of certainty. The fish have been caught at various points on the lake ever since the fry were put in, and appear to grow as rapidly and possess all the qualities of the shad that are caught in salt water.

Mr. Green now intends to go on with the work of supplying the lake with a large quantity of shad by liberating fry.

—The Minnesota State Hatchery House at St. Paul, but recently completed, has now 250,000 salmon eggs on the trays, which are apparently doing well. The eggs are for McLeod River, California.

—Why does not Livingston Stone, Esq., send me the celebrated gamy and toothsome McLeod or red-banded trout of California to the East for propagating purposes? Those who know, declare that they will thrive and prove a valuable acquisition to our catalogue of edible game fish.

MULLET FROM THE SANDWICH ISLANDS.—Mr. Redding, the Fish Commissioner of California, recently obtained from the Sandwich Islands some specimens of the mullet-fish known there as the *Awa*. They have been put in the sloughs near Bridgeport.

SALMON IN OHIO.—A correspondent informs us that a California salmon was caught in the Big Miami River on the 18th of this month which weighed five pounds. It is believed to be the progeny from the 125,000 of the same species which were deposited in the same river four years ago.

## Natural History.

NEW VERTEBRATE FOSSILS.

IN a paper recently published, Prof. Marsh of Yale College, gives us further results of his explorations in the West, and describes a number of new genera and species of Vertebrates. The forms referred to are all from the Rocky Mountain region, and several of them are from the beds generally known as Cretaceous No. 1, but now regarded by our author as the equivalent of the Wealden of Europe. It is an interesting and suggestive fact that these beds have been gone over many times by professional explorers, all of whom have united in pronouncing them barren of vertebrate fossil remains.

The animals described in the paper to which we refer, include Mammals, Birds, Reptiles and Fishes, and we shall briefly refer to some of the more interesting forms. *Heliobatis radicans* belongs to the group of Rays, of which the familiar sting ray and "cow fish" are well known examples. The most peculiar point about this species is that it apparently inhabited fresh water, and is described as a "land-locked ray." It bears a considerable resemblance to a ray from the Mt. Lebanon deposits of Syria, described by Egerton under the generic name of *Cyclobatis*. It differs from the latter, however, in having a greater number of radiating digits, and in the possession of a number of dermal defensive tubercles which are wanting in *Cyclobatis*. *Diplosaurus felix* is a crocodilian from the newly discovered Wealden beds of Colorado, and is of great importance, as it supplies a "missing link" between the more ancient Tellosaurian type and the modern genus *Crocodylus*. *Diplosaurus* had the head somewhat like that of the modern Crocodiles, but its vertebrae were of the old biconcave shape. From the Tellosaur lake basin east of the Mountains a true crocodile, *C. Solaris*, is described, the first known from these beds. It is interesting as furnishing a good indication of the climate of the region during Pliocene time.

The Dinosaurs, a group of some what bird-like reptiles, were very abundant in the Rocky Mountain region during a considerable portion of Mesozoic time, and these Wealden beds, to which we have already referred, have yielded recently several remarkable genera. One of these, *Titanosaurus*, was noticed some time since in FOREST AND STREAM, and in the present

articles we are furnished with a description of another new genus, *Nanosaurus*, differing widely from the former. While *Titanosaurus* far exceeded in size any terrestrial mammal of which we have any knowledge, *Nanosaurus* was very small, *N. Victor*, the largest of the two species, being about as large as a fox, while *N. Agilis* did not exceed in its dimensions a cat. The bones of these animals were hollow and the walls very thin. The crowns of the teeth seem to be compressed, and they are inserted in distinct sockets. The former has the characteristic thin trochanter.

A bird about the size of a small duck is described by Prof. Marsh under the name of *Graculavis lentus*. Until the discovery of this specimen Cretaceous birds were known only from Kansas and from the Atlantic coast. This form, however, comes to us from Texas. The specimens on which this species is founded differs widely from the similar parts in the Odonotornithes, and is, therefore, referred provisionally to the genus *Graculavis*.

Besides the animals already referred to the present paper contains the announcement of the discovery of three gigantic Edentates, one, *Moropus distans*, from the Miocene of Oregon; the other two, *M. senes* and *M. elatus* from the Lower Pliocene of Nebraska. These animals are quite different from any edentates hitherto known and form a new family, the *Moropodidae*. *M. distans* was about the size of a tapir, while *M. elatus* was as large as a rhinoceros. The characters of these strange animals seem to point to the African Ant-bear (*Orzyeropus*) as their nearest living relative. The other mammals enumerated in this interesting catalogue we must pass over very hastily. They include a new rodent, *Allomys*, apparently allied to the flying squirrels from the Miocene of Oregon, two new species of *Bison* from the Lower Pliocene of Kansas and Nebraska; a new genus of tapirid mammals from the Miocene of the Atlantic coast and the West; and a new genus of rhinoceros from the Upper Eocene of the Rocky Mountains. This last discovery is of unusual interest, as it is the oldest known rhinoceros, and enables us to trace the direct line further back into the past than we had before been able to.

Altogether the paper before us is one of great value, and contains more important announcements than are vouchered in a publication of this character.

## A REMARKABLE RAT'S NEST.

Mr. A. W. Chase, in a recent letter to one of the editors of the *American Journal of Science*, gives the following account of the habits of the California wood rat, *Neotoma* no doubt:

While on the northern coast, I noticed a fact in natural history, to me quite curious, regarding the habits of the so-called wood rat. I am not sufficiently versed in such matters to give you the name of this interesting creature. It is a little larger than an ordinary Norway rat, dark brown in color, with large lustrous eyes, and a tail covered with thin hairs. This creature builds its nest in the woods, sometimes on the ground; more frequently on the lower branches of trees. They accumulate a surprising quantity of dried twigs, which they interlace to form a dome-shaped structure, often ten or twelve feet high and six or eight feet in diameter. Openings in the mass lead to the centre, where is found the nest, consisting of the finely divided inner bark of trees, dried grass, etc. But it is to the peculiar thievish propensity of this little creature that I wish to call attention. To make my story intelligible, I would first state that I am partial owner of some property on the Oregon Coast, on which a saw-mill had been placed, but which, owing to various causes, has never been in operation. On this property was a dwelling house for the hands, in which, on work being discontinued, was stored a quantity of stuff—tools, packing for the engine, and six or seven kegs of large spikes; in the closets, knives, forks, spoons, etc. A large cooking stove was left in one of the rooms.

This house was left uninhabited for two years, and, being at some distance from the little settlement, it was frequently broken into by tramps who sought a shelter for the night. When I entered this house I was astonished to see an immense rat's nest on the empty stove. On examining this nest, which was about five feet in height, and occupied the whole top of the stove (a large range), I found the outside to be composed entirely of spikes, all laid with symmetry, so as to present the points of the nails outward. In the centre of this mass was the nest, composed of finely divided fibres of the hemp packing. Interlaced with the spikes we found the following: About three dozen knives, forks and spoons, all the butcher knives, three in number, a large carving knife, fork and steel, several large plugs of tobacco; the outer casing of a silver watch was disposed in one part of the pile, the glass of the same watch in another, and the works in still another; an old purse containing some silver, matches and tobacco; nearly all the small tools from the tool closets, among them several large augers. Altogether it was a very curious mixture of different articles, all of which must have been transported some distance, as they were originally stored in different parts of the house.

The ingenuity and skill displayed in the construction of this nest, and the curious taste for articles of iron, many of them heavy, for component parts, struck me with surprise. The articles of value were, I think, stolen from the men who had broken into the house for temporary lodging. I have preserved a sketch of this iron-clad nest, which I think unique in natural history.

Many curious facts have since been related to me concerning the habits of this little creature. A miner told me the following: He once, during the mining excitement in Siskiyou County, became, in California parlance, "dead broke," and applied for and obtained employment in a mining camp, where the owner's hands and all slept in the same cabin. Shortly after his arrival small articles commenced to disappear; if a whole plug of tobacco were left on the table it would be gone in the morning. Finally a bag, containing one hundred dollars or more in gold dust, was taken from a small table at the head of a bunk, in which one of the proprietors of the claim slept. Suspicion fell on the new comer, and he would perhaps have fared hardly, for with those rough miners' punishment is short and sharp; but just in time a large rat's nest was discovered in the gable of the cabin, and in it was found the missing money, as well as the tobacco and other articles supposed to have been stolen.

These same wood rats are among the greatest pests of our

western country to those who live in log cabins. They establish themselves in the roof beneath the sod, and once in possession they seem to be constantly on the watch to see what they can carry off. We have long been familiar with their pilfering proclivities, and have even suffered by them, but the above narration far exceeds any experience of our own. Can any of our readers match it?

SEALS.

With the exception of the whales and their allies, the seals, perhaps, at first sight exhibit a greater departure from our ordinary idea of animals than any other mammalia. Although still undoubtedly quadrupeds, their legs are so completely enclosed within the skin of the body, that nothing but the feet project, and of these the toes are united by skin, so as to form fins or paddles, adapted almost solely for the propulsion of the animal through the water. The position of the hind legs, too, is very singular; they are turned completely backwards, so as to form a sort of broad double-tail fin, very similar, both in appearance and action, to the tail fin of the whale. But in these, as in the forefeet, all the parts existing in the most perfect quadrupeds are to be recognized; whilst the tail of the whale is really a fin, and has nothing whatever to do with the hinder extremities. As might be supposed from the form of the limbs, seals are by no means at home when out of the water, floundering about in a decidedly awkward manner by a vermicular action of the abdomen, assisted by the fore paws. But in their native element the fish-like form of their bodies and their powerful paddles render them very active, and they swim and dive with great rapidity in pursuit of the fishes and other marine animals which constitute their general food.

The common seal, which is especially plentiful on the Pacific coast, is of a yellowish-gray color, often covered with dusky or blackish spots. Its average length is about three feet, though sometimes it measures five or six. It has a rounded head, and the eyes are very large, soft and black, giving it a most intelligent expression of countenance; it has no external ears, and the orifices of the auditory organs are furnished with valves, capable of being closed when the animal is under water; however these do not seem to prevent hearing, but act as a sort of additional drum or tympanum, rather intensifying than decreasing sound.

On the coast of Greenland and British America seals exist in innumerable herds in spite of the destructive warfare that has been waged against them for ages, both by natives and Caucasians. To the latter the "seal fishery" furnishes but two products, oil and fur; but so indispensable is the seal to the very existence of the former that it has been said: "The sea is the Esquimaux's field, and the seal-fishing his harvest." The skin of the animal, when deprived of the long and rather coarse hair which forms its outer coat, furnishes a soft downy fur of light brown or fawn color, held in great repute for caps, coats, mantles and other articles of winter comfort. It provides the Inuit with the whole of his clothing; and to a people who depend so much on seafaring life for subsistence, its capability of resisting water is not one of its least desirable qualities. The oil too, not only serves as a light giving medium, but is employed for heating and cooking purposes, and is held to be a most desirable beverage. McCulloch, in speaking of seal oil, says that, "when extracted before putrefaction has commenced, it is beautifully transparent, free from smell, and not unpleasant."

Every part of the seal is utilized by the Inuits. The pelts not only furnish them with the warm clothing so necessary to an Arctic climate, but provides their boats and summer habitations with a waterproof covering, and when tanned forms a strong, serviceable leather. The intestines form substitutes for glass in lighting their huts, and are also formed into shirts and other articles of wearing apparel; the sinews furnish them with thread, the bones become tools and heads for spears, and their flesh is a most important article of food.

In fine weather seals are fond of basking in the sun, and vast herds of them are often seen thus engaged upon the gelid ice. In these situations, which are known as "seal-meadows," the hunters endeavor to surprise them while sleeping, so as to intercept their attempted retreat in the water, to which, as an asylum, they always direct their course when alarmed. They are generally killed by knocking them on the head with clubs, a single blow being sufficient to dispatch them.

In character seals exhibit amiable points. They are devoted to their young, and the latter are dutifully obedient to their parents; while the males fight valorously in defence of their consorts and families. In confinement, especially when taken young, they are easily tamed, and exhibit as much attachment for their master as does the dog.—*Appleton's Journal.*

**LARGE WAPITI ANTLERS.**—Captain Algernon E. Smith, United States Army, is the owner of a pair of elk antlers, found in the Black Hills of Wyoming, the dimensions of which are as follows: From tip to tip, 3 ft. 7 in.; widest spread outside of curvature of shafts, 4 ft. 8 in.; around hurr, 12 1/2 in.; just above hurr, 10 1/2 in.; left head tip to centre of skull, 5 ft. 1 1/2 in.; right, the same; right head tip to right head brow antlers tip, 6 ft. 4 1/2 in.; left head tip, 1 1/2 in. less; right head curvature tip to hurr, 4 ft. 9 in.; left head, 1/2 in. less; between brow antlers, 12 1/2 in.; weight, 50 lbs. We have a photograph of them.

**HABITS OF DEER AGAIN.**—*Moorefield, W. Va.*—In a late issue of your paper "Antler" takes occasion to contradict statements made by me in a recent article on the habits of deer. Although he disagrees with me, I was glad to learn that the subject was of sufficient interest to merit a reply. I do not intend to trespass upon your valuable space with an answer, for I could only state the facts upon which my former statements were based. I may, however, be allowed a few words in regard to one point of especial interest. Although "Antler" has the corroboration of your learned self upon the question of horns, I venture to again assert what was once a theory with me, but which now has the force of fact, namely, that deer deposit their horns in secret places. It is true the horns are sometimes found, and bear marks of the work of rodents. Not only has recent inquiry confirmed my opinion, but I have learned a fact which seems to place the question beyond dispute. Several years since the deer in Druid Park, Baltimore, became so numerous that some of them had to be killed. A report upon the subject by the Park Commissioners contained some curious facts in regard to the habits of the

deer. It was stated that only once since deer had been kept there (a number of years) had any of the horns been found, and then in a very secluded spot. Stranger still, the horns then discovered were buried. These gentlemen seemed to be of the opinion that it was the undoubted habit of deer to bury their horns, or when the ground was too hard to hide them in some secret place. The park alluded to is not very large, while the deer are very numerous. With the thousands of people who ramble through its groves, it is certainly significant that deer horns are never found. If it be true, as claimed by the Park Commissioners, that deer bury their horns, it seems probable that such horns as are found are dug up by rodents. One word in regard to that "tail business." With such a keen eye as "Antler" must possess, the novice would hardly need a "sign" that he had wounded a deer. Observation and inquiry have led me to believe the sign of some account, and so I shall continue to believe until a supernatural vision, as possessed by our friend, enables me to tell how close a bullet has passed to a deer's head, or that each particular hair is untouched, while the deer is running off at "double quick" speed. SYCAMORE.

**ALEPIDOSAURUS.**—We mentioned this rare fish in our last issue. In our next we will give a full description of it and its habits, and all the facts connected with the capture of the specimen received by Mr. E. G. Blackford, to which we have made reference.

**BOA CONSTRICTORS.**—The boa constrictor in the New York Aquarium gave birth, last Saturday evening, to fifty young boas. The young strangers are from two to two and one-half feet in length, quite a respectable size for infant reptiles.

**ANIMALS RECEIVED AT CENTRAL PARK MENAGERIE FOR WEEK ENDING OCT. 20, 1871.**—1 black bear, *Ursus americanus*, presented by Mr. Geo. Bough, New York city; 1 horned owl, *Bubo virginianus*, presented by Miss Caroline Phelps Stokes, New York city; 1 hawk, *Buteo borealis*, presented by Mr. D. C. Deyoe, Westkill, N. Y.; 1 monkey, *Cebus capucinus*. W. A. CONKLIN, Director.

Woodland, Farm and Garden.

THE IMPROVEMENT OF IMPOVERISHED LANDS BY MEANS OF SHEEP.

FERN BANK, Ohio.

EDITOR FOREST AND STREAM:

I am quite sensible, Mr. Editor, that for a journal like yours, with its legion of readers scattered over the whole North American continent, my last communication on sheep husbandry was somewhat too local in its application; but the fact is, your note of approval and allusion to the Blue Ridge of Virginia touches a chord in my heart which will ever vibrate, responsive to any kindly mention of the dear Old Dominion; and I was tempted to diverge from the path which I had proposed to follow in preparing these papers. I overran the trail, and now, if you please, will "hark back." My original intention was simply to advocate sheep culture, not with reference to the profits to be derived from wool and mutton, but as the cheapest method of renovating exhausted soils; the mutton and wool I reserve for another paper should this prove of sufficient interest to your readers to receive the honors of type.

We have in this country, and more particularly in the late slave-holding seaboard States, millions of acres too poor to bear the expenses of cultivation or even inclosure. To judge from the original growth of timber still standing upon these lands, most of them were, when first brought under cultivation, of excellent quality, and the problem now to be solved is their restoration to fertility at the least expense. The application of stable manure or other fertilizers is out of the question, for the impoverished soil will not sustain the cattle to produce the first, and the owner has neither the money nor the credit wherewith to procure the latter. Guano, poudrette, bone dust and the super-phosphates, even when not subjected to fraudulent adulteration, are all too expensive; they will not pay. What, then, is the alternative? We answer, gypsum and sheep. Gypsum, whether a manure or a mere stimulant we will not stop to discuss, is the cheapest of all fertilizers, because of the smallness of the quantity required; and impoverished as these lands are, none of them are too poor to carry one or two of our common, native, mongrel sheep to the acre. The gypsum will awaken such elements of fertility as may still remain dormant in the soil, and the sheep will make a clean sweep of the bushes and briars and other coarse vegetation that would choke the white clover and sweet grasses brought out by the plaster. But to carry out this system of improvement successfully, the old thriftless method of managing (or rather not managing) sheep must be abandoned. They must not be turned adrift, as is the almost universal practice, to shift for themselves, and never looked after except when at irregular intervals they are enticed with salt to put in an appearance, in order to be shorn or to furnish a victim for the shambles.

Let the farmer be convinced that his material salvation is to be attained only through his sheep, let him give to their well being as much and as earnest thought as he does to local politics, let him be convinced that the increase of his flock and the consequent improvement of his land is of more importance to him and his family than the election of this or that county demagogue to this or that office, then he will as he should do, care for his sheep with as much or even more solicitude than for any other stock. As a consequence he will soon see his galled, gnarled and sedge-clad fields smiling in robes of emerald green he will be emancipated from the slavery of debt, and he will no longer feel inclined to escape by the back door when the tax-collector or the sheriff enters at the front.

It may be asked why the common native sheep should be recommended for the improvement of exhausted land? Simply, because being more frugal and hardier, they will bear heavier stocking than the improved breeds, and they are not near so costly; moreover, with judicious management, they will improve in quality just as certainly as the soil which they cleanse with their teeth and enrich with their droppings.

In spite of the teachings of an able agricultural press there is still among us a class of farmers who, with heads as hard as their fists, and that obstinate incredulity so often the accompaniment of ignorance will object to the proposed system on the old and obsolete plea of danger from sheep killing dogs; they might as well plead the danger of fire as a

sufficient reason for not building a comfortable house. It was hoped that the grangers would have suppressed this evil through legislative enactment, but alas! it would appear that the owners of marauding curs and the pot-hunters can yet outvote the grangers, and of course the demagogues in the legislatures will go with them even if the destruction of the last sheep and all the game in the country be the consequence. Of what value to a self-seeking politician is a great national industry compared with a vote which may enable him to clutch the spoils of office?

But why wait for a tardy legislation to do what we can accomplish ourselves? There are but two precautions necessary to remove all danger from dogs, the first is to fold the flock at night, and this is indispensable where the improvement of the land is the main object, and the other is to put bells on ten sheep in every hundred, the marauder will never venture into the fold, and if he attempted to chase the sheep when at large he is intimidated by the clamor of the bells. Another excellent safeguard is to let a few sharp-horned cows herd with them habitually; next to Spanish or Mexican sheep dogs the most efficient protectors sheep can have from their canine enemies, for when attacked the flock instinctively seek safety beneath the horns of their bovine friends.

On the continent of Europe the shepherd has a light box on wheels, in which he sleeps very comfortably at night. This house on wheels stands by the side of the sheep fold, and when the latter is moved, as is done every few days, the house is lifted off and the running gear serves to transport the hurdles from place to place as may be required. Where the flock is large and valuable enough to warrant this precaution, there is no reason why it should not be taken in this country as in Europe.

But to condense. Upon a given breadth of land spread plaster of Paris (gypsum) annually, at the rate of one bushel to the acre, turn upon it as many sheep as it will maintain; salt the flock regularly, or better still, keep lumps of rock salt permanently on the galled spots of the field, fold the flock every night on the same spot until sufficiently manured, and then remove the fold from place to place until the whole field is gone over.

The above may be accepted as a fair solution of the proposed problem: "To improve impoverished lands by means of sheep," if we add to it that in sheep breeding eternal vigilance is the price of success. F. G. S.

TRANSPLANTING.

THE best time for transplanting shade trees as well as fruit trees and deciduous shrubs is just when the leaves have fallen or are about to fall, but when planting has to be done on a large scale, it has to be proceeded with at all times when the weather is open enough. The sooner therefore a commencement is made the better, and one condition is essential to the success of such operations, more particularly when they are performed at somewhat unfavorable seasons, viz.: that the plants should have been properly prepared in the nursery before being sent out, and if this has been the case planting may be performed with little risk at any season. Young trees and shrubs of all kinds should be moved or transplanted almost every season while in the nursery, and this has generally the effect of causing them to root near to the boles or stems, and there to form a dense mass of roots which necessarily retain a considerable portion of the soil. When this is the case the moving and transplanting in reality inflicts but a trifling check on the plants. With regard, however, to the transplantation of trees or shrubs that have attained considerable dimensions the case is somewhat different, as they will probably have occupied the position in which they now stand, undisturbed, for years, but from which, for some cause, it may be desirable to remove them. When this removal has for some time been decided upon, the trees have doubtless been judiciously root pruned a year ago, and their removal will be comparatively easy and without much risk, and may be proceeded with at once. The leaves have now accomplished their mission, or nearly so, the young wood is in a comparatively ripe state, and the buds have arrived at that condition in which they will be the least affected by the temporary check which is sustained by the necessary mutilation of the roots. If the operation is performed now it will afford ample time for reparation, before the atmosphere and the soil have become so cold as to retard the production of fresh roots. The plant is thereby enabled to start afresh in spring with plenty of young feeders already made, which it would not have if the planting be delayed until that time. In all cases, however, in which it is inconvenient to attend to the final removal of trees at present, it will be advisable (more particularly if the specimens to be moved are valuable) to defer the operation until somewhat late in the spring when the soil begins to receive some heat, and the probabilities of success are greater than if done at any time during the winter or late in the fall, no matter how favorable the weather may be. One or two points must however be kept well in mind in case of late spring planting, viz., keeping the plants as short a time out of the ground as possible, that the fibres may not get dried up—the giving of abundant and frequent supplies of water to the roots, as well as mulching the surrounding soil to prevent undue evaporation, and where possible syringing or hosing the plants in the evenings during dry weather, until there are sufficient indications of their having become established in their new situations, when that attention may, of course, be discontinued, especially if the weather be damp or cloudy. It is a well-known fact that evergreens, and even deciduous plants may be transplanted successfully at almost any time of the year; and indeed as regards evergreens, May and June are the preferable months in this climate—just as the young growth begins to start and active root-life with it. In fact the only drawback to spring planting is the considerable amount of extra labor which it necessarily entails at a very busy time of the year; therefore early fall planting may, all things considered, be regarded as the most suitable period for the prosecution of this work (with deciduous trees and shrubs) as the newly transplanted trees will not only require less labor, but it will also be possible to devote more time and attention to their requirements,

—We notice that Nature is republishing Professor Marsh's Nashville address on the Introduction and Succession of Vertebrate Life in America, which our readers are now enjoying. Its importance and value are appreciated abroad as well as at home.

—Mr. Elb. Nelson, a well known naturalist, has recently proceeded to Norton Sound by way of Alaska. Mr. Nelson, who goes to relieve Mr. Turner, was provided by the Smithsonian Institution, and we may look for very interesting results from his exploration.

—M. Bozolubsky has recently published a very interesting and important work on Gold and Gold Mining in Russia. It is stated in this volume that the yearly yield of the mines in Russia and Siberia amount to no less than \$15,000,000, and that the whole area occupied by the mines is about 2,100,000 miles.

CEREALS.—According to recently compiled statistics, Russia is ahead of all the nations of the world in its yield of cereals, leading the United States by 379,950,000 bushels, or nearly one-fourth the entire production of this country. Germany comes next, with less than one-half the amount produced by the United States, and is closely followed by France, whose product exceeds that of Great Britain by half, and Austro-Hungary holds a position nearly midway between the two.

HOW TO CATCH CHICKEN-HAWKS.—It is a well known fact that a hawk will always light on some conspicuous place close to the poultry yard, from which to swoop down on its victims. Taking advantage of this, erect a pole with a flat surface at the top just large enough to hold a strong steel trap. Fasten this trap by a chain to a staple in the pole, and await results. No bait will be needed, for the hawk will be quite certain to light on the trap and be caught.

GERMINATION OF PINES.—Seeds of the Sequoia gigantea, or indeed of any of the Californian pines, if fresh and sound, can be sown in a cold frame, or in pots or boxes in the house or greenhouse, and slightly covered with a rather light peaty soil. If in a cold frame they will not germinate till spring, but no frost should be allowed to reach them. They should be transplanted as soon as fit to handle to prevent their "dampening off." Old seeds, such as you mention, can have no vitality and consequently will not germinate. The Sequoia is not quite hardy here, and will certainly not be so far North. Sequoia is named for the Cherokee half-breed Indian See-qua-yah, who invented an alphabet for his nation.

—Recently published statistics issued by the Norwegian authorities gives the following table of domestic animals per 1,000 inhabitants at the different nationalities: Horses in the United States, 227; Russia, 225; Denmark, 176; Sweden, 103; Austro-Hungary, 98; Great Britain and Ireland, 85; Norway, 84; Germany, 83; France, 70. Of horned cattle, in Denmark, 687; in Great Britain, 300. Of sheep, in Spain, 1,348; in Great Britain, 969; in Belgium, 143. The number of goats in Greece, 913; in Great Britain, 8. Of swine in the United States, 671; in Great Britain, 112; in Greece, 38.

THE AUTUMN CROCUSES AND COLICHTHOMS.—These are among the most beautiful of the fall flowers seen peeping through the grass in clumps, or in the rocky; they give a touch of spring when the surroundings all remind us of the winter's approach. How charmingly may we adorn some favorite nook in the lawn at this season with the flowers of a blue and gold-tasseled crocus rising up suddenly through the grass. They are all hardy and vigorous and should be much more extensively grown.

LAYERING SHRUBS, ROSES, ETC.—A good method of rapidly increasing any variety that is found difficult to propagate is to bend down and layer the whole plant, covering it alike about one to one and a half inches deep. All the buds receive by this method a like impulse to throw out roots, while if only a portion is covered the vigor of the plant is drawn away in another direction. The shallow covering does not prevent growth.

WILD RICE AND WILD CELERY.—In compliance with the courteous request concerning the wild rice and wild celery and the culture of each in a late issue of the FOREST AND STREAM, I take pleasure in giving such information upon the subject as I have been enabled to gather. As to the wild celery (Valisneria americana) of Lake Koshkonong, Wis., I can give but very little information, knowing that lake only as the greatest resort of the delicious canvas-back in Wisconsin. Upon this subject I have no doubt the genial writer and keen shot, R. Valentine, of Janesville, Wis., is au fait, and could give the desired suggestions for the culture of wild celery, if, indeed, it be practicable. This aquatic weed is—as is well known—the favorite food of the canvas-back and widgeon, but the mallard, teal, wood-duck and most of the others of the common varieties of wild fowl found upon our inland lakes partake, with the greatest avidity, of the wild rice (Zizania paniculata effusa), found in more or less abundance along the low streams and lakes of this section of country.

Last season, desiring to test the expediency of sowing wild rice, I obtained a small quantity of fully ripe seed, gathering it myself to be certain of its condition, and during October had the seed carefully sowed in the stream called Duck Creek, near my present home. Previous to this not a solitary plant of wild rice was known to exist upon the stream, and I awaited with some anxiety the coming season for developments. Although a portion of the seed thus "cast upon the waters" was taken by the ducks of the vicinity, I had the pleasure of

witnessing the growth of a goodly piece of wild rice, which came to maturity and demonstrated the feasibility of wild rice culture. So well am I satisfied with the experiment that I propose to sow a much larger amount this season along Duck Creek, and am confident that by care in the selection of the seed, as well as the proper places in which to sow it, a most satisfactory result may be had.

In selecting wild rice seed great care should be taken to use only sound, ripe and fully matured kernels, such as may be easily shaken or beaten from the stem, as either green or shrunken seed will fail to produce plants. In the case of M. H. C., I consider the failure due to the seed, or, perhaps, to the nature of the soil in which it was sown.

I know not if the wild rice seed will grow in the waters of all our inland lakes, but incline to the opinion that it will thrive in most shallow waters, wherein the soil is alluvial rather than sandy, though I have known it to exist where the bottom was merely light sand covered by a thin strata of vegetable mould. This may be exceptional, at least it is unusual in this section. In sowing the seed of wild rice it should be placed in such spots as naturally thrives, i. e., along the low, marshy shores where very little if any current is perceptible, and along all inlets, sloughs or bayous extending inland; dropping the seed in one foot to three feet of water, where it may soon be covered with the dark alluvial, and thus escape the wild fowl until securely rooted. If sown in October, it should mature and bear seed the following autumn, and will then spread and thrive finely. Very high water—as freshets—will kill and drown out wild rice even more rapidly than will a drought and low water. Should I discover anything of practical value to sportsmen in future experiments in this line I will gladly communicate the same, and in the meantime trust that those who have had larger experience may give the readers of FOREST AND STREAM the benefit of their observations.

Westfield, Wis., Oct. 12 F. E. POND.

NOTICE TO SPORTSMEN.—Having received so many communications asking for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address we put on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting. P. O. Box 1,294.—A. D. ABBEY & IMBRIE, 38 Maiden Lane.

Sea and River Fishing.

FISH IN SEASON IN OCTOBER.

- Black Bass, Micropterus salmoides; Weakfish, Cynoscion regalis. M. migrans. Bluefish, Pomatomus saltatrix. Masealonge, Esox nobilior. Spanish Mackerel, Cybium maculatum. Pike or Pickerel, Esox lucius. Cero, Cybium regale. Yellow Perch, Perca flavescens. Bonito, Sarda pelamys. Sea Bass, Sciaenops ocellatus. Kingfish, Menicichthys nebulosus. Striped Bass, Morone saxatilis. White Perch, Morone americana.

FISH IN MARKET.—Our quotations for the week are as follows: Striped bass, 18 to 20 cents per pound; smelts, 20 cents; bluefish, 10 cents; salmon, frozen, 30 cents; mackerel, 10 to 20 cents; white perch, 15 cents; weak fish 12 cents; Spanish mackerel, 30 cents; green turtle, 15 cents; terrapin, \$12; frost fish, 8 cents; halibut, 15 cents; haddock, 8 cents; king-fish, 25 cents; codfish, 8 cents; black-fish, 15 cents; native herrings, 6 cents; flounders, 10 cents; porgies, 10 cents; sea bass, 18 cents; eels, 18 cents; lobsters, 10 cents; scallops, \$1 per gal.; soft clams, 30 to 60 cents per 100; salmon trout, 15 cents; black bass, 15 cents; sheephead, 25 cents; whitefish, 18 cents; pickrel, 18 cents; yellow perch, 10 cents; hard shell crabs, \$3 per 100; soft crabs, \$1.50 per dozen; frogs, 45 cents per pound; turbot, 40 cents; sun fish, 10 cents.

FISH CULTURE IN FULTON MARKET.—On Friday, the 12th inst., E. G. Blackford, of Fulton Market, received from Prof. Fred Mather 500 salmon eggs, which he placed in a Ferguson hatching jar and set on his stall, and connected with the croton, so that a constant stream of fresh water passed over the eggs. On Friday, the 19th inst., five of the eggs broke and released the young fry, and at the present time they are nearly all hatched. Hundreds of people have visited the market, and expressed their pleasure and astonishment at this practical illustration of fish culture.

MAINE.—Edes Falls, Oct. 18.—Sebago salmon are running up the Saco and Crooked Rivers in great numbers. When the gate is shut in the river here they can be picked out with the hand.

—There is no fishing in the lake (Memphremagog) by reason of close season, from Oct. 1st to Nov. 15th.

MASSACHUSETTS.—New Bedford, Oct. 17.—The fine weather of the past week induced several of our amateur fishermen to make a short visit to the island in the lower part of the Bay, and with very good success. Chas. S. Randall, Esq., being "high hook" with three bass caught inside of two hours, the largest weighing forty-seven (47) pounds. Quite a number of smaller fish were obtained. CONCHA.

MOVEMENTS OF THE FISHING FLEET.—Only 48 fishing arrivals have been reported at this port the past week, 18 from the Banks, 18 from Georges, 9 from the Bay St. Lawrence, and 3 from shore mackereling trips. The receipts have been about 725,000 lbs. Bank codfish, 180,000 lbs. Georges codfish, 120,000 lbs. Bank halibut, and 1,000 bbls. Bay mackerel.—Cape Ann Advertiser, Oct. 18.

A THIRTY-TWO POUND BASS.—Mr. John Rodgers, a retired merchant, residing corner of Eighty-third street and First avenue, in company with a Hell Gate pilot named Taylor, while trolling around the "Nigger Heads," a reef of rocks in Hell Gate, yesterday, struck a striped bass weighing thirty-two pounds four ounces. With a pole, reel and line, the latter only one-sixteenth of an inch in diameter, Mr. Rodgers, after fully an hour's work, aided by Mr. Taylor, succeeded in landing him on shore, not, however, without the aid of a gaff hook. This is the largest bass that has been taken in New York's waters for over twenty successive seasons. It is on exhibition at Jerolomon's boathouse, foot of Eighty-ninth street, East River.—Herald, Oct. 24.

PENNSYLVANIA.—President, Oct. 19.—Bass fishing is excellent. Trolling is now the successful method of capturing them.

VIRGINIA.—Leesburg, Oct. 16.—The fish thought to be a salmon, caught near Harrison's Island, turns out to be of some other family, was spiny rayed and had no adipose dorsal. T. W.

FLORIDA.—St. Augustine, Oct. 17.—Bass fishing yields large returns. J. O.

CANADA.—Salmon Fishing in the Saint Marguerite.—Mr. Robert Hare Powell has kindly furnished us with the following record of the fishing in this river, of which Messrs. Hare and Russell are lessees:

Number and Weight of Salmon Caught by Robert Hare Powell, Esq., and Robert Hare Powell, Jr., of 424 Walnut street, Philadelphia, in the River Saint Marguerite in 1877.—July 10th, 13½, 14lbs, b; July 11th, 12½, 21½, 19, 15lbs, a, b; July 12th, 11, b, a, 12, 11, 14½lbs, a; July 13th, 10, 12lbs, July 14th, 12, 14, 11, 13, 14, 13lbs; July 15th, 17, 10½, 12, 11lbs, b; Three days did not fish; water too low. Heat excessive. July 19th, 10, 10lbs; July 20th, did not fish; July 21st, 13, 23, 10, 23lbs; July 22, 9, 11, 14½, 10, 20, 22, 20lbs, b, b, a, a, 12, 11, 12, 12lbs; July 23d, 14, b, 12, 12, 19 lbs; July 24th, 12½, 14, 9lbs; July 25th, 11, 12, 14, 6lbs; July 26th, a, a, a, 12lbs; July 27th, a, b; July 28th, Two days did not fish; water rising. July 30th, 21, 15, a, a, 11, 14, b, 14, 10, 13, 14, 14, 14, 12, 10lbs, b, b, b, a, a, a, lost in branches overhanging the pools. July 31st, 15, 12, 14, 21, 20 lbs, a, a, a; Aug. 1st, 12, 15, a, 10, 12, 14, 10lbs.

NOTE.—a signifies loss of fishonly; b signifies loss of fish and fly. Number and Weight of Salmon Caught by Willis Russell, of St. Louis Hotel, Quebec, in the River Saint Marguerite, Monday, July 2d, between 5 and 11 A. M., 17, 12½, 18, 13, 19, 23, 15, 13½lbs. Number of fish, 9; total weight, 115lbs; average weight, 16lbs. Besides the above, there were 5 salmon lost.

The summary of the season's fishing is as follows:

Table with columns: Name, Days, Fish, Weight, Average. Includes names like R. H. Powell, W. Russell, Sam Streib, E. A. Greene, Walter M. Brackett, E. V. Clark, Col. Rhodes.

AN UNEXPECTED APPLICATION OF A ROD.—The Editor of this paper has received the following characteristic letter, accompanied by the most beautiful bamboo rod which it has ever been our pleasure to handle. We do not know when any sympathetic act of friendship has appealed so directly to our sensibilities. The gift was as unexpected as it was generous, polite and opportune. Its bestowal was evidently prompted by the injunction of the Master, who enjoined upon Peter and the other disciples who were fishermen, when they found a brother "in distress, naked, sick, or in prison," to at once give him their coat, cloak, hat, boots, fishing nets, tackle, etc. It was the evidence of a proper appreciation of the forlorn condition of one who is bereft, stripped, dismantled and put "afloat," as they say in prairie parlance. Besides, the rod is a substitute for an Andrew Clerk rod, which has done constant and faithful service in our hands for more than five years past. The rods manufactured by that house, and by their worthy successors have long enjoyed a deservedly fair and enviable reputation; and we have no doubt that this one, so gracefully donated, will also prove its excellence by its works. Our thanks are due to our friends, whom we trust may long continue to prosper in business.

NEW YORK, 48 Maiden Lane & 35 Liberty st., Oct. 18, 1877. DEAR HALLOCK.—We saw in the papers that while on your Western trip you had the misfortune to lose all your fishing tackle overboard. You must allow us to sympathize with you in your very serious loss. It is no joke to lose a whole fishing and hunting outfit. Please permit our sympathy to take a practical shape. This you can do by accepting the accompanying six-section bamboo trout fly rod. It may be "a poor thing but it is our own." It is marked "Abbey & Imbrie's Best." This means that it is the best we can make. Of course if you want a real good article—one that will be just the thing to drop overboard—you must go elsewhere; our rods are intended to fish with.

Deducting the reel-plate, the rod weighs a trifle over six ounces. With one of the same calibre, we have taken several salmon (on one river in Canada) weighing from twelve to eighteen pounds. We, therefore, feel confident that even a novice like yourself may, with proper care, manage into the capture of a grayling or a small trout without doing irreparable injury to the rod.

We received a note from Seth Green, "the father of American fishes," a few days ago. He says that he has used one of our section bamboos for eight years without any expense beyond an annual coat of varnish. As we have not been idle during the past eight years, we are sure that the accompanying rod is worth a dozen of the one sold him in 1869. We have therefore calculated that the rod should last you about a century—if you don't drop it overboard in forty fathoms water. Yours very sincerely, ABBEY & IMBRIE.

A disinterested friend has informed us that the Orvis fishing rods have gained such repute, chiefly through the advertisements and notices published in FOREST AND STREAM, that sales have already been made in all the States save Arkansas, and all the Territories save three. These rods are made of ash and lancewood, and are manufactured at Manchester, Vermont.

OYSTERS IN GREAT BRITAIN.—Advices from the United Kingdom say that oysters are scarce, bad and highly expensive this season. As they are unusually abundant on this side of the water this season we can supply our Transatlantic cousins with any quantity of bivalves far better than their own waters can ever hope to yield.

—Fish are never found napping, though "rocked in the cradle of the deep."

SPLIT BAMBOO RODS.

To our customers and the public.—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON, Manufacturers, 65 Fulton Street N. Y.

The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age. 2. Food and medicine given. 3. Appearance of the eye; of the coat; of the tongue and lips. 4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc. 5. Breathing, the number of respirations per minute, and whether labored or not. 6. Condition of the bowels and secretions of the kidneys, color, etc. 7. Appetite; regular, variable, etc. 8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg. 9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

STREET DOGS IN CONSTANTINOPLE.

IT is my private, and therefore my unshakable, opinion, that, whatever anybody else says, the street dogs of Constantinople, in spite of the natural benevolence and chronic alms-giving of the true Mussulman character, do not fare sumptuously every day, for I saw four street dogs make a simple, hearty meal on the remains of an old beaver hat. I do not mean to say that the street dogs of Constantinople live on nothing but old hats. On the contrary, I have intimate reasons for knowing that they live on dead cats, dead pashas, dead horses, dead asses, melon rinds, water skins, old saddles, shreds of ribbons, and nut shells. Have I not sat down and watched their frugal meal with the interest of a brother a thousand times? Have they not, like poor relations and friends, snapped at my legs on a dozen occasions? Have I not taken up my stick at last and drubbed them until I was weary, just to show that I really loved them?

I think that, striking an average, the more retired and short streets of Byzantium would furnish in the dog days, let us say, about from seven to nine dogs to the great unpaid dog army of Constantinople. Now, you must not run away with the notion that the pariah dogs, perhaps of good lineage, are mean, ugly, or debased in face or bearing. Not they. They may not be as bold and chivalrous as the shaggy Newfoundland; as lithe and crescent as that shivering exile, the Italian greyhound; as droll and muffy as the Skye; as sturdy and sagacious as the pointer; as vivacious and hearty as the smooth terrier, or as dogged as the bulldog, that most costermongery and blood-thirsty of our four-footed favorites. They are not very thoroughbred, though they do keep to themselves, and are as strict as gypsies about losing cast and position by lowering marriages, or even evie alliances. They are not ridiculously small-eared or large-thighed, or large-jawed; their hands and feet are not aristocratically too small for any honest use, but they are just such downright brave, sharp-teethed, strong-backed dogs as the Great Snapper first made and Adam first named in that most fruitful of languages—the Hebrew—the *dog*, *i. e.*, wise animal, from whence, as Mr. Trenchant tells us, came the Venetian word “*Doge*,” quasi “*master spirit*,” *i. e.*, wise being, from whence is deduced, or dragged, the degraded slang word, “*dogger*,” or “*knowing one*.”

It is observed that, while the dogs in the quieter and more lonely streets on the tops of the Seven Hills toward the ruined walls were sullen, ascetic, fierce, shy and cynical, the dogs of the busier streets near the Bosphorus and down by the Seraglio, or the bazars, were slinking, mean, timid and cowardly. Philosophy soon discovers the reason. In the quiet streets these dogs prowl and scavenger, and do the strolling, unpaid sanitary commissioner, and are the terror of Turkish urchins, and the dread of gossiping servants at garden doors; but nearer the busy haunts of men these same dogs become so kicked and drubbed and driven and “*chivied*” (for you cannot beat a London thief epithet for persecution), that they get quite broken-hearted, and, laying down abjectly all pretensions to savage freedom, become acknowledged and branded pariahs, rogues and vagabonds, servants of the public, doing willingly the meanest chores, yet as terribly worried in return as any unpopular cabinet minister; so that, while when alone in the higher streets, it is possible that you may be followed by a growing train of dogs, who, in time, will gather courage and fall on you, leaving, for all we know, nothing but your shirt buttons, which they will spit out like cherry stones, according to the precedent of the unhappy sausage-maker? so, in other streets, it is nothing all day but one incessant charging out of protesting shop men from doorways, stick in hand, a shower of blows and a scattering away, ending with a growling howl (dismal to hear) that lasts sometimes a good five minutes.

But to describe our friend, “*Canis erraticus*,” as Maler would call him. He is a fine made animal, nearly as large as a retriever, but occasionally sinking to the smaller foxhound size. He is generally of a ruddy brown or rutous color, now deepening almost to black, now lightening to the pale brown of a rather undone ginger biscuit. His tail is nothing particular, but his head is well made and sagacious; his eyes are bright, wary and untamed; his teeth generally large, white, and singularly strong and sharp. As for the old legend of the necessity of going armed with a perpetual stick, it is now at least sheer nonsense. Except at night, when the unlighted streets are dangerous, the dogs will never touch you. Stopping for a stone, except in rare cases, would frighten a dozen; and so well is this known in Stamboul, that it is a common saying among the turbaned true believers, that no Turkish dog will stay in a mosque, because they always mistake the stooping and bowing men for vindictive enemies bending for stones to pelt them with. The Greeks have the same legend, which is more noteworthy there where the shepherds' dogs rush, like open-mouthed and hungry lions, upon every traveler that passes them, be he wise or simple.

It was the second week or so of my acquaintance with Constantinople that I saw the wild dog in his fiercest and most historic aspect. Almost the first thing the Anglo Saxon traveller visits is the Florence Nightengale's Hospital, over in Scutari. It is still called “*Florence Nightengale's Hospital*,” and always will be called so in memory of that brave lady, though it is now truly returned to its old uses, and is again a barrack for dirty Turkish soldiers. I had done the proper thing—that is, had taken a caïque on the wooden bridge, skipping gingerly along its sharp, narrow, covered end, knowing that one inch awry I should be in the water. I reached my seat, and then letting ourselves gently drop into the strait of well or “*crade*,” as the boatman called it, smuggled myself comfortably into the cushion-lined box and called out in Turkish: “*To the Scutari Barracks (Eskiği Efendi)*,” Mr. Boatman, and off we went.

A moment was taken by the stalwart boatman to adjust his oars, by a greased leather loop, to the rowlock pegs; then poising the curious oars, the upper parts of which are as large and oval as small skittle pins, he flew over the blue Bosphorus with me, bearing straight to the cliff on whose top the English tombstones shine like beacons.

In due time that half mile or so of blue water was passed by the silk-shirted *Palinurus*, and, paying him so many great copper piastres, I leaped on the little plank jetty, where were found some Turkish boys watching a stalwart black diving. Asking them my way, and so learning it, I scrambled across the grooved sloping tramway of a caïque builders, and made along the narrow strip of shore that underlies the crumbling earth-cliffs of Scutari—the barrack side of the town. It was delicate walking, for the earth sloped very close to the black, shellless pebbles of the beach, and the miserly water washed high up to meet the boulders and colored stones and drag them back to submarine.

The walk was pleasant, on one side, because I could see the city-gleaming in the distance, and the breath of the sea was bracing and fresh in that torrid climate; but on the other hand it was not pleasant, for here and there a sluggish black stream treacle down the cliff, or poured through some self-worn channel, in a way that would have made the Thames, the grandmother of all sewers, past, present and to come, burst its banks with envy.

I was trying to quiet the scruples of my offended nose, and was wondering what strangled pashas and headless wives might not, fifty years ago, have been washed up on this noisome shore, where nothing but the wild barren ground grew and where the ground was strewn with dead starfish, when my eyes, looking upward from the beach, ran twenty yards off, and there fell, with alarm and horror, upon the carcass of a dead horse upon which a band of wild dogs were feeding as busily as aldermen at a charity dinner on a haunch of venison. They were tugging, and peeling, and riving, as energetically as lawyers on Chancery property, unanimous as swindling directors, silent as gluttons at a feast. They scarcely looked up to see who was coming; poachers and wreckers work not so industriously. I should have believed that they had not dined for a month before, for they were slaving like shipwrights working overtime the night before a launch. I knew not which dog's energy most to admire: whether he of the tanning, or he of the zoological; he of the anatomical, or he of the physiological department. It was a labor of love to them, and they went at it tooth and nail.

Some of the wretches were nuzzling their gory heads in the scooped-out stomach; others were tugging angrily at the crumpling main, to get at the choicer morsels beneath. Others were stripping up the hide over flank and thigh with loathsome dexterity, and a few of the more timid, frightened by warning bites, and scared by ominous growls, were digging their sharp and hungry teeth into the distant legs and the long sinewy neck. The carrion-vulture gorging himself on a dead, swollen ox, is horrible to see, but this cried out to me: “*You infidels, you are in a new country where life has no high value, and where death has new terrors*.” Making a long detour, so as to out-flank this public dinner, I passed on inward and upward to the stony street that leads to the hospital of Florence Nightengale.

Only the next day, as I strolled through an almost disused part of the “*Petit Champ des Morts*,” as the French of Pera playfully call the old Turkish burial-ground, through which their chief promenade runs, I looked among the tombs around us, and saw a grave, immediately facing where we stood, that had lately fallen in, just as a badly baked pie might do at the first shivering touch of the knife. As the Turks are not civilized enough yet to boast of resurrection-men, and as their doctors are not so studious of death's secrets as to give even one farthing for dead Turks, whether murdered for the purpose or not, I began to wonder for a moment what had led to this yawning aperture. But, when I instantly remembered that the poor Turks were buried without coffins, only laths or light hoop-wood being placed to keep the earth from pressing uncomfortably on the pale man, I ceased to wonder. The body decays, the earth, unless renewed, falls in; and what leads to this ghastly and alarming accident still more is that the Turks are in the habit of leaving a hole communicating from the body to the upper air. The edge of this tube the sun chaps, and the crack, running downwards at once, levers up the baked clay.

I was turning away, wondering what horror would next meet my eyes in this strange country, when lo! the ground gaped and cracked wider, and from the dark, loathsome little cave toddled upwards, winking to the light, a little wild dog pup, his yellowish hair still almost down, and before I had done wondering at finding the poor man's grave turned into a kennel, up toddled, screeching feebly, yelping, and rolling now and then upon their backs, four others of the same breed, the respected mother of the family refusing to appear, and remaining in her unfragrant subterranean drawing room.—*All The Year Around*, Dec. 31, 1859.

**BENCH SHOW AT THE PARIS EXPOSITION.**—It has been decided by the managers of the Great Exposition to be held in Paris in 1878 to add a dog show to its many other attractions. Dogs are to be divided into six categories; the first to comprise animals used for the protection of human beings and for guarding flocks; the second comprises hunting dogs exclusively; the third, those used to shoot over; the fourth, greyhounds; the fifth, fancy breeds and house dogs; and the sixth, the miscellaneous varieties not included in other classes. The show will open June 30, and last one week, and will be held inside the Exposition building. Entries are to be made at the Ministry of Agriculture and Commerce before the first of April next, and the management, in order to secure regularity and good order, will take upon themselves to feed and look after the animals, for each of which the owner, when he makes his entry, must deposit the sum of twelve francs, or about \$2.32. Entries may be made by mail, and remittances by post-office order, payable to the agent, who will supply the necessary blank forms. For dogs exhibited in lots, however, the entrance fee will be but \$1.16. Exhibitors must pay for the carriage of their dogs to and from the Exposition, but the railway authorities have agreed to convey them at exceptionally low rates. Dogs cannot be removed, unless ill, until the close of the show, except house dogs, which may be taken away each evening and returned in the morning. A special jury, composed of French and foreign breeders will award the prizes, and this jury will be divided into sections,

no member being allowed to exhibit at the show. The prize list is as follows:

In each of the four first classes there will be given a championship prize for the best dog in each, and there will also be sixty gold, seventy silver, and one hundred and twenty-five bronze medals for distribution in the six divisions. There will also be given in the three first classes, a money prize of 100f. (\$19.30) with each gold medal; a sum of 75f. (\$14.45) with each silver medal, and 50f. (\$9.65) with each bronze medal.

We trust that American dogs will be represented at the Great Exposition, and feel confident that some of our native setters will reflect credit upon their masters and themselves. Certainly no better opportunity can be offered for the exhibition of native stock.

**DOG DROWNING A CAT.**—G. G. in writing to the *Land and Water* relates the following somewhat curious occurrence, which took place at Morebattle, a village near Jedburgh, in Roxburghshire: “*A pup of the collie breed, about four months old, belonging to Alexander Woodcock, shepherd at Morebattle Tofts, was the other day observed to watch closely the drowning of a cat belonging to its master, in the water of Kale, which runs close to the shepherd's door. Woodcock is also possessed of a kitten with which this young collie is in the habit of romping. Shortly after the drowning of the cat, somehow or other the collie, feeling aggravated at the kitten scratching him, lifted it in his mouth, walked down to the little wooden bridge that spans the water, and quietly dropped the kitten in, just in the same way as he had seen his master disposing of the cat, thus showing that the drowning scene had made a deep, if not a lasting, impression on the dog's mind. At first sight this circumstance would certainly seem an extraordinary instance of imitative qualities in the dog in question. Puppies when being broken are taught their duties the more easily when they have an old dog to aid in the lesson; from the very outset they will almost invariably imitate his actions. Even if there is no old dog for them to imitate, puppies will imitate the actions of their master, and this is particularly observable in teaching a young dog to go “*seek*,” when he observes by his master's action that the latter is searching for something he will often rather than join in the search. It may be in the present case that the pup saw his master drown one kitten, and imitated him by dropping the remaining one off the bridge in the same way. It seems more probable, however, that it was by mere chance the pup dropped the kitten into the water, as it is a very common thing for young dogs to take kittens up in their mouths and carry them even a distance of several yards in play and drop them.*”

**TENNESSEE FIELD TRIALS.**—The programme of the field trials is as follows:

Monday, November 12, 1877.—Puppy stakes (for pointers and setters under 18 months), \$300, to be paid in prizes of \$150, \$100 and \$50 respectively. Mr. H. C. Pritchitt gives \$25 in gold to the trainer of the best trained pup in this stake. Entrance \$15, to close November 1st, with \$10 forfeit.

Tuesday, November 13, 1877.—Champion stakes (open to all), \$500, to be paid in prizes of \$250, \$150 and \$100. Mr. V. L. Kirkman gives \$25 in gold to the trainer of the best trained dog or bitch in this stake. Entrance \$25, to close November 1st, with \$10 forfeit.

Wednesday, November 14, 1877.—The Dupont Powder Company's stake, \$250, for braces. (Open to all—a brace may be owned and hunted by two persons.) The prizes are \$150, \$75 and \$25. Mr. J. F. Nicholson gives \$25 in gold to the trainer of the best trained brace in this stake. Entrance \$25, to close November 1st, with \$10 forfeit.

Same day.—St. Louis Kennel Club stake, \$50 silver cup. For puppies under 12 months. Entrance \$5, to close November 1st, \$2.50 forfeit. All races will be on quail.

—There is much excitement at Wallingford, Conn., over hydrophobia. Several dogs and a number of cattle have been bitten by a rabid dog, and it is feared that there may be some human victim.

**DOLLY AND BEAUTY.**—E. F. Mercillott has sold to Mr. Wm. Marsh and to Ogden Wood, Esq., the artist, two puppies by Morris' Pete, of N. J., out of Grace, first prize winner at N. Y. Bench Show, she by owner's Pet.

—Chas. Trantor's red Irish setter bitch Bess whelped ten pups—eight dogs and two bitches, out of imported Joe, by (Jack).

**TENNESSEE.**—Cash premiums amounting to \$2,330 are offered for the shooting tournament which is to be held in connection with the Field Trials at Nashville, Nov. 15th, 16th and 17th. We shall print full particulars next week.

**NO NAME GIVEN.**—The plant sent last week is *Dulichium spathaceum*, a curious Cyperaceous plant, and a native of this country. Please state in future where collected.

**NAME CLAIMED.**—F. A. Cary, of Princeton, N. J., claims for his red Gordon setter, out of Scott, Rodman's kennel, the name of Guy Manning, Junior.

**EGG SUCKERS.**—Here is another recipe from a correspondent:

**EDITOR FOREST AND STREAM:**

I completely cured an egg-sucking dog with the following recipe: Having blown an egg, I filled the shell with mustard, red pepper and enough vinegar to make the moss quite fluid; then putting the egg in the dog's mouth, I crushed it there by closing the jaws. I held the mouth closed as long as the violent struggles of the animal would permit, and a furry “*Monkey*” would fairly run from the sight of an egg.

NORFOLK, Va., Oct. 9, 1877. W. S. TAYLOR.







A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INOCULATION IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY  
**Forest and Stream Publishing Company.**

—AT—  
No. 111 (old No. 703) FULTON STREET, NEW YORK.  
[POST OFFICE BOX 2532.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

**Advertising Rates.**

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, OCTOBER 25, 1877.

**To Correspondents.**

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

DR. G. A. STOKWELL.—This person, who has held position as an assistant editor on this paper for the past four months, is no longer connected with this office in any capacity, his connection having been severed this week.

SWINDLED AGAIN.—We have again been victimized to a large amount, by irresponsible persons collecting our advertising bills, and as there seems to be no legal recourse or means of punishing the swindlers who constantly prey upon us, we again beg our advertisers to extend to us their protection by refusing, in accordance with the standing notice in this journal, to pay over any money to any but duly authorized persons, bearing letters from either Mr. T. C. Banks, Business Manager, or Chas. Hallock, President of the Forest and Stream Publishing Company.

AWAY TO THE SOUTH.—The exodus has begun. Already the hosts of pleasure-seekers and health-seekers are following the birds, and flying southward. The Old Dominion Line of steamers had in one day, last Monday, sixty applications for passage. Some of these go to the shooting grounds of Currituck and the vicinity, while others are bound to Florida and the far South, where they will spend the winter.

OUR WASHINGTON LETTER.—We beg to again call attention with becoming satisfaction to the admirable letter of our Washington correspondent, Mr. R. F. Boiseau. There is a vast deal of information contained in this and all his letters, which is most valuable to sportsmen.

The Special Trains running to and from New Haven in connection with steamers leaving Pier 25, E. R., have been discontinued for the season. The New Haven steamers leave as usual at 3 P. M. and 11 P. M., passengers can connect with trains for North and East by taking horse cars from steamboat dock to railroad depot at New Haven.

THE GAME LAWS.—There is in course of publication a German edition of the game laws of this State, translated by Mr. W. Thiese, editor of the *Schuetzen und Jagd Zeitung*, and published in that paper. Mr. G. Lander, the proprietor of that paper, intends to publish them also as a pamphlet, notwithstanding that can be highly recommended.

**THE WOODRUFF SCIENTIFIC EXPEDITION AROUND THE GLOBE.**

MANY of the readers of FOREST AND STREAM no doubt have, from time to time, seen allusions to this well known excursion for pleasure-loving travelers and students of science, and as the final arrangements for the start are now being completed, a brief description of its object may possess a certain degree of interest. It is proposed by Mr. Woodruff and General David McCauley to convey a number of persons so inclined around the globe in an ocean steamship, commanded by United States Naval officers, and thoroughly found in every respect for scientific investigation and purposes of pleasure. All are invited, male and female, scientific and non-scientific, although special attention will be paid to students to enable them to make their trip mentally profitable, and for this purpose a competent and well selected corps of scientists has been engaged, prominent among whom we may mention Professors Jenney, Rothwick, Merriam, Barnard, Corwine, and others. The ship will be provided with dredges, swab-tangles, nets and all the other paraphernalia for deep sea dredging, preserving tanks, cans, bottles, microscopes, etc., etc., in short everything necessary for the use of the collectors on board, and their specimens will be transported back to New York free of charge. Lectures will be delivered at stated times, with blackboard illustrations, which are fine to all, although not obligatory, and practical instruction will be given in the different modes of collecting and preserving objects of natural history. Steam launches are provided for short water excursions, and an armament is carried to protect the passengers from danger of too familiar savages; for it should be stated that the ship will touch at localities seldom or never visited by white men. The programme is substantially as follows: Leaving New York, the first stoppage will be made at the British West Indies, from thence to the Coast of Brazil, mouth of Amazon, Rio Janeiro, Monte Video, Valparaiso, Straits of Magellan (to view the living glacier), Society Islands, Australia, Fiji, and Sandwich Islands, Coast of China and Japan, visiting the inland sea of the latter country and the rivers of the former, Spice and Andaman Islands, Indian Ocean, India, Persian Gulf, Suez Canal to Mediterranean, up the Nile, Mycaire Schliemanns excavation, Crimea, Coast of France, and England, Straits of Gibraltar, and hence by the Azores. In addition to the seaports visited, a sum of \$80,000 will be placed in the hands of trustees to defray the cost of inland excursions. For this trip, unequaled in point of attraction, the very moderate sum of \$2,500 is asked, a trifle over \$100 a month, much less than an ordinary tourist would have to pay for a very commonplace European tour. It should be remembered that this sum covers every expense—board, transportation and instruction for those desirous of being taught, and that such care has been exercised in the selection of a faculty that students may prepare for any college in the land while continuing their cruise. It should also be mentioned that in addition to the naval surgeon three other accomplished and practical medical men accompany the expedition, hence every land party temporarily detailed from the ship will be supplied with proper medical attendance. The project seems to us most feasible and praiseworthy, and it has met with the greatest encouragement from all of our prominent scientific institutions and men.

In conclusion, we offer our heartfelt congratulations to the directors of the expedition, and trust that their trip may be pleasant and profitable and serve but as the initiatory movement for other excursions similar in character.

RIVERTON, CONN., Oct. 16, 1877.

**EDITOR FOREST AND STREAM:**

As an ardent admirer and well rewarded subscriber of FOREST AND STREAM, I take the liberty to say that I miss the "Letters of Sportsmen," which constituted so interesting a feature of the ROD AND GUN. In my opinion no department of that paper contributed so largely to the education of young and amateur sport-men as did the letters from such writers as "Boone," "Snap-Shot" (afterwards "Howdah") "Royal," of cherished memory, and "Off-Hand," who has also been "gathered in." Then there were the letters from old hunters in the Far West and California, whose names I do not at the moment recall, giving us their opinions relative to the most effective weapons and manner of using them. Those from "Van Dyke" were of especial interest to me, inasmuch as they emanated from one long used to rifle shooting in the pursuit of game.

I hope your enlarged and improved paper will ere long afford the space for more of the same sort, and that the mantles of "Royal" and "Off-Hand" may descend upon worthy shoulders, and may the inspirations of "Boone" awaken echoes in our hearts in the future as in the past. None but one of nature's noblemen could have written "Hill and Farewell." D. H. S.

We certainly appreciate the friendly disposition evinced by our esteemed correspondent. We deplore, with him, the absence of some (not all) of the familiar pens which he enumerates, and regret that our columns do not longer invite their attention. We like very much to have our weaknesses and deficiencies pointed out, and if the columns of FOREST AND STREAM are really deteriorating, as his remarks would seem to imply, we trust that friends of the paper will rush to its rescue and save it from disgrace and premature oblivion. The standard of sporting literature is certainly advancing, and if the pens of such eminent writers as Major Merrill, Commander Beardslee, Judge Caton, D. G. Elliott, Professor Marsh, Dr. Rawlings Young, Geo. Dawson, J. Matthews Jones, Ernest Ingersoll, R. F. Boiseau, Dr. Garlick, R. E. Ducaigne, Prof. Harvey, and a hundred other writers equally eminent or popular do not fill the bill, then we can assuredly congratulate our reading public upon the rapid advances that

we must assume to have been made in *belles-lettres*, and all that pertains to matters of scienc., metaphysics and domestic economy. Nothing now remains for us to do but to politely inform our gentlemen contributors that they are not up to the times. They must study to improve in order that their laurels may not fade or the sun set upon the skin and dry bones of purely dead ideas. We invite attention to these few remarks.

AMERICAN ARMS IN THE EAST.—American arms are playing no small part in the contest now waging in the East. The Providence Tool Company are just filling a new order of 100,000 Peabody-Martini rifles for the Turks, which will make a total of 600,000 furnished during the last eighteen months. The Winchester Arms Company has also furnished a half million or more, and will receive more orders. Counting the Remingtons, with which the Egyptian troops are armed, it is but a moderate estimate to place the number of American rifles in use in the Ottoman Empire at three-fifths its whole armament. The rapidity with which American arms can be discharged is unequalled, giving an immense advantage to a small body of troops; and their supremacy has been marked throughout the war, if we may believe a tithe of the accounts written, which describe the slaughter committed among the Muscovites during their charges upon the Turkish strongholds, as without parallel in history. It would seem impossible for any body of troops to face the storm of bullets that sweep the approaches, for the Turk is a sure marksman at such short distances as two and three hundred yards. In the Russian service there are, perhaps, 80,000 Remington rifles, and the troops thus armed have been noted for their efficiency in the field over those armed with the common weapons—Gorloff and Kimka rifles. America bids fair to supply the world with small arms, so marked is their superiority. It was the Winchester that enabled Sitting Bull to defy and escape his pursuers, and Joseph to so long baffle and defeat the flower of the regular army. American arms and American forms of fortification, are contributing not a little to the prolongation of the Eastern war, and give the Russians far more trouble than that fanaticism and valor for which the Turks are so noted, and which makes them foemen worthy of any nation's steel.

OUR RIFLE DEPARTMENT.—We observe that two new journals have been started in New York, devoted expressly to long-range rifle shooting and the interests of the National Guard. While it might be deemed expedient by the National Rifle Association to have an organ of its own, we have never heard it intimated that any such organ was desired. The *Army and Navy Journal* is a specialist in these matters, and there are also the standard sporting papers, besides, which devote a large share of their attention thereto. The FOREST AND STREAM and ROD AND GUN, especially, has been most assiduous, from the start, in promoting the interests of long-range rifle practice and the interests of riflemen, and most careful and painstaking in the publication of scores, as well as impartial and judicious in its study of general topics and disputed questions, speaking fearlessly and without favor. It may, properly and without affectation, lay claim to the credit of having co-operated with well-known gentlemen and been largely instrumental in initiating the movement in this country, and promoting the competitions which have made it so popular and given it a world-wide interest. We have been identified with it from the beginning. We first published the scores made at the Creedmoor range, and ever since have been careful always to print them with such accuracy as to make them reliable for future reference. Editorially, we have always led in those views and suggestions which have brought the rifle, the range, and the rifle practice itself, to that perfection which it has reached. Our columns of 1874 bear abundant testimony to this assertion, and we do not expect that any person, cognizant of this claim, will attempt to gainsay it, or desire to do so. We know that our efforts have been, and are appreciated, and believe that our paper has filled the bill to the general satisfaction. At any rate, if it has not done so here at home in America, it has done so in Europe. It is not so much for the purpose of making objections to the enterprise of the gentlemen who think that the fittest of the two new Rifle papers has a chance to survive the other, as to bring the following testimony of the *Royal Service Gazette*, of October 6th, in support of what we have ventured to say. We make the following quotations from this official paper, which has usually, if not always, printed our reports in preference to those of any other American journal, a courtesy which we abundantly appreciate:

"As for the match of this year, the very ample report which we reprint from the excellent New York paper, FOREST AND STREAM, shows that the shooting was better than ever. Sir Henry Halford and his comrades need take no shame to have been beaten."

"We are glad to be able to publish to-day very full details of the International Match at Creedmoor, of which we gave the result some time ago. The Report we print is taken from the New York paper called FOREST AND STREAM, to which we have often directed our readers' attention. The analysis of the shooting is most complete, and leaves, indeed, nothing to be desired, while the descriptive writing is, if a little more florid than we are accustomed to in accounts of rifle matches at home, very graphic and amusing."

—Mr. John A. Nichols, of the firm of Nichols & Lefever, Syracuse, has presented to Sir Henry Halford an Indian birch canoe. It is to grace the lake on Sir Henry's estate, and will be a novel craft on English waters. Mr. Nichols also sends to Sir Henry one of the firm's Creedmoor rifles.

GAME PROTECTION.

PENNSYLVANIA—Milford, Pike Co., Oct. 18.—The annual "confidence game" in order to entrap sporting visitors has been played this year in Pike county. The two market hunters of the village of Milford, however, pretty well cleaned out local woodcock by the 3d July, and before August, when woodcock hunting was no longer profitable and two hotels demanded game at all hazards, work was begun with chicken, pheasants and every brood was decimated, so that by even Sept. 1, it was impossible to strike a flock anywhere, and the birds were found single and very wild. The law for ruffed grouse was up on the 1st inst., and on that day and up to the 16th inst. your correspondent sought almost in vain for this game. Not a single flock was seen either on the Sawkill, Santavante, Raymondskill, Dwarfskill, Dimmick Meadow Brook, Deep Brook, Conashaugh, Log Tavern Pond, Butternut Orchard, Sawkill Pond, and other resorts, showing that the birds had been shot at continually before the law was up. The bag for three guns for twelve days' hunting was twenty-five pheasants and eleven woodcock. Of the latter five were flight birds. There are but few pheasants between the Shohola and the Paupack creeks, owing to the forest fires, and the deer appear to have deserted this region. There is a deer in the neighborhood of Milford, but when hunted it runs to Pond Eddy; and there are one or two deer in the Bushkill region between Dingman's Creek and the Big Bushkill. There are some bear around the Knob on the borders of Wayne county. Let Sportsmen give Pike county a wide berth, then the hotel keepers will help to get up a sportsman's club (the recent attempt was a failure, as the "wire cartridge" gentry wanted to get control), and will discountenance market hunting out of season. By the by, the names of the dog poisoners in this village are known, and when the proper time comes they will be taught a lesson. AMATEUR.

[REMARKS—We are glad to know that in that portion of Pike county which is preserved by the "Blooming Grove Park Association," deer and ruffed grouse are sufficiently abundant to afford good sport to members and other visitors.]

Pottsville, Oct. 22.—In a letter to your valuable journal of Aug. 16, I stated that game of nearly every kind in the county was very abundant, etc. I notice our sportsmen starting early in the morning for the field of sport, but returning in the evening with little or no game. They say it is very scarce. Last week a party of us went on a hunting expedition through the interior of the county expecting luck, but the reward of our hunt amounted to two pheasants. Farmers told us that during the miners' protracted strike, they came from other counties, raided their farms and forests, and deer and game of every kind have been almost totally destroyed. Our sportsman's associations seem to be helpless in protecting game and prohibiting unlawful shooting, etc. Only a few weeks since a party (including several coal and iron policemen) shot nearly two dozen pheasants on Sunday. The names of the parties have been inquired for, and whoever they are, a fine of ten dollars apiece for the birds, and twenty dollars for hunting on Sunday is due from them to the County Treasury. I have also been informed that a party shot on last Sunday fifteen pigeons, and carried them through town as though they defied the penalty of the law. Other parties have been habitually shooting robins and various insectivorous birds. Their names have not as yet been made known, consequently no arrests. DOM PEDRO.

—That the Philadelphia Sportsman's Club means business is evident from the prosecutions instituted by them for violations of the game laws. On Monday, Oct. 15th, they caused the arrest of Phillip J. Lauber, of 24 South Fifth street, Philadelphia, for serving the guests of his restaurant with quail on toast. Magistrate List fined him \$10 and costs.

FISHING IN CAYUGA LAKE—A correspondent writing from Schenectady under date of Oct 5th, says:

Fishing was never so poor in Cayuga Lake as this year. I camped there nearly two months this summer, and know that nearly every person residing on the lake fishes contrary to the statutes. It is an open secret among all classes.

I myself saw numbers of beautiful trout which had been taken with the gill nets. Everybody seems to justify the violations of the law; they argue that the law is wrong—should never have been enacted. "Why," they say, "should sportsmen's clubs, consisting of a few elegant gentlemen of wealth and leisure, go to Albany and secure the enactment of a law which shuts up the lake to a large number of people who had always been accustomed to get a considerable fraction of their daily food in this manner?" The beautiful lake has always been free to them, why should these refined robbers snatch away a right which they have enjoyed for so many years?

This is the prevailing sentiment, and it would be an immense job to enforce the law. Meantime the attractions for sportsmen are growing smaller by degrees and beautifully less.

THE SALMON FISHERIES OF CALIFORNIA.

THERE is no fecundity so continuous and vast as to supply the waste of unremitting destruction, and although the salmon of Oregon and California have swarmed the rivers of those States by millions, and are remarkable as being among the most prolific of fresh water fishes, yet it has become apparent already that they are rapidly diminishing in numbers through their destruction out of season by unaccountable and reckless fools, who look only to present gain, regardless of future want and impoverishment. The penalty of \$50 fine for violation of the laws for governing fishing is no obstacle whatever when the illicit profits of avarice are so large as to make the fine infinitesimal in comparison. There are prominent and wealthy firms whose infraction of the laws is constant and defiant, and who sneeringly pay the fines as often as imposed. The boldest of these is that of Emerson, Corville & Co., who, it is said, can afford to pay a fine of \$200 per day for three months and still make money by catching seed salmon. There seems no other way to reach these offenders except by making the penalty sufficiently heavy to be onerous

and then to impose it with a will. The subject is engaging the serious attention of the journals of the Pacific coast, and we are gratified to observe that there is a probability of the abuses being pressed upon the attention of the Legislature at its coming winter session. We have also had the pleasure of a very intelligent and profitable interview with Mr. Horace F. Dunn, of San Francisco, who is now in this city, relative to the subject. It has taken but four years to destroy seven millions of buffalo, and we can readily see that the same doom which has nearly wiped their race from the plains awaits the salmon in their native streams unless immediate measures of prevention are employed. There is something rotten in jurisprudence or its application if these miserable offenders cannot be reached and interdicted. They should be persecuted for every infraction of the laws. The great difficulty in the way of unremitting prosecution seems to be that no one seems to think it his especial business to assume personal responsibility in the matter. The Fish Commissioners of California are efficient, fearless and industrious men, but as they receive no remuneration whatever, even for traveling purposes, they cannot be expected to be very earnest in undertaking risks and incurring expenses for the public good. A system of paid wardens, who will devote all their time to the business, and whose duties shall be so carefully defined and guarded that they cannot be bought by the law breakers, would seem to be demanded as the one best calculated to accomplish the desired work. In every State wherever there are game laws there should also be game wardens and constables, just as in cities there are policemen to enforce the regulations for the public peace and safety.

MULE TRAITS.

MULES are the offspring of horses and asses, and do little credit to either parentage. From the horses they seem to derive their heels, from the donkey their heads. All the obstinacy of the ass, all the viciousness of the horse, in brief, the poorest mental qualities of both, the mule rejoices in possessing. Nor is his stubbornness dignified and patient, eliciting sympathy and commanding respect for the principle which it seems to involve, as in the case of his progenitor, but uncertain, intermittent and vexatious; it is active rather than passive. Moreover, you cannot overcome his natural depravity, making him a gentle friend as you do your horse. A horse that you have ridden long and attended with personal care will learn to love you, whinny when he hears your voice, respond by every equine congratulation to your caresses, pine for you when dead. No mule ever would. Make a pet of a mule and you ruin what little good there may be in him. Be shot off his back in battle (if you could ever get him there) and he would kick you as you fell, glad to be free, and run away. I am speaking of the pack mules of the Rocky Mountains. I cannot venture, with Col. Sellers, to speculate upon the m-e-w-l-s of the Mississippi bottoms.

The Western pack-mule is small, sinewy, and, like old Joey Bagstock: "Tough, sir! tough! but de-evilish sly!" Most of them are bred from Indian ponies, and are born on the open plains, where the herd has ranged during the winter. Having previously been lassoed and branded, when three years old they are driven or inveigled into a corral and exhibited for sale as bronchos. And they are wild; an untamed horse is a model of gentleness beside them. Sometimes they are accustomed at once to the saddle, by one of those wonderful riders who can stick on the back of anything that runs; rarely are they trained to the harness, but ordinarily are broken to the pack-saddle. The transportation of freight through the mountains in wagons is generally impracticable. Pack-trains of mules are therefore widely used everywhere on the Pacific Slope.

The first time the pack-saddles are put on there is an exciting scene, as may be well be imagined. The green mule, strong in his youth, having been adroitly lassoed, is led out into an open space, stepping timidly, but, not seeing any cause for alarm, quietly, and before he understands what it all means, finds that a noose of the lariat about his neck has been slipped over his nose, and discovers that his foes have an advantage. He pulls, shakes his head and stands upright on opposite ends, but all to no avail. The harder he pulls the tighter the noose pinches, so he comes down and stands still. Then a man approaches slowly and circumspectly, holding behind him a leather "blind" which he seeks to slip over the mule's eyes. But too long ears stand in the way, and the first touch of the leather is a signal for two jumps—one by the mule and one by the packer, for packers are wise enough to fight shy of the business end of a mule. The next attempt is less a matter of caution and more of strength, and here the animal has so much the advantage that often it must be thrown to the ground. 'Tis fine to see the indignation of such a fellow! He falls heavily, yet holds his head high and essays to rise. But his fore-feet are manacled by ropes, and his head is held. Yet he will get upon his hind-feet, stand straight up and dash down with all his weight in futile efforts to get free. Secured with more ropes, allowed but three legs to stand upon, and cursed frightfully, he must submit, though never with good grace. It is not always, however, that this extremity is resorted to. Some animals make little resistance while the strange thing is put upon their backs, and the fastenings adjusted, all but one. When an effort is made to place that institution called a crupper under a young mule's "unrative," language fails to express the magnificence of the kicking. The light heels describe an arc from the ground to ten feet above it, and then

strike out at a tangent. They cut through the air like whiplashes, and penetrate what they strike like a bullet. But mule-flesh tires; strategy wins; the crupper is gained, and the first hard pull made upon the *sinch*, (as the girth is termed) which holds firmly every hair's breadth gained, and will finally crease the contour of the mule's belly into the semblance of Cupid's bow. But the mule is springing again, bucking now, with arched back and head between his knees, landing on stiff legs to jar his burden off, or falling full weight upon his side and rolling over to scrape it free. He will sit on his haunches and roll over backward; will stand on his head and turn a summersault; finally will stand still, shaking with anger and exhaustion, and let you lead him away. He is conquered.

Used from colthood to being with the herd, it is not difficult to induce a company of pack-mules to keep together, and to learn to follow a leader, or rather the bell that the leader wears. If this leader is a horse, all the better. Mules will go perfectly daft over a horse, and there are always fierce contests the first day a train starts out as to which mule shall have the coveted place next to the bell-horse. It often happens that for weeks afterward the victor has to maintain his position by constant exercise of heels and teeth, with much squealing and mulish profanity. I have seen two mules fight so incessantly for the place next to the bell-horse, when feeding, that they forgot to eat all day.

This point decided, the mules drop into Indian file, each keeping his chosen place in the line day after day, through the season, under ordinary circumstances. There is always a vast amount of growling and moaning, and the less heavily they are packed the more they grumble. Plodding along in a rapid walk very demurely, head down, eyes half closed, ears monotonously wagging, you think they have forgotten all their pranks, abandoned all their intentions of wickedness, and you fall into an admiring contemplation of their exceeding docility and sweetness. Meanwhile the saddle and load of a certain little buckskin-hued, cayuse mule has been slipping backward, and he, knowing it, has wigged and swelled himself, and moved the skin of his belly until he has got far enough through the *sinch* to try his experiment. With the suddenness and agility of a grasshopper he gives a tremendous leap toward one side, bucks high in the air a dozen times in as many seconds, dancing about, kicking, stands straight up on his hind legs and falls over backward; then he wriggles through the loosened girths until he can bring his heels to bear, and kicks boxes, bags and bundles until the saddle slips down his legs and confines them like a handcuff. Next he rolls over, and quietly nibbles the grass within reach waiting until you shall come and release him. Get a mule down thus, let him find himself fastened, and he will lie perfectly still until you come to his assistance—will often lie in the mud and drown unless you hold his head out of the water for him. Getting themselves mired in a favorite amusement with them, and those behind are morally sure to rush in on top of their mates, floundering in the bog in spite of all you can do. Their sagacity in some directions turns to the most desperate stupidity in others. Very sure-footed in crossing a stream, as elsewhere holding their place well against the strongest current, and, able to swim ashore with their burden intact, you have little anxiety so long as you can keep the water out of their ears. But once the fluid enters those furry receptacles, wits and courage desert the mules, and instantly leaping into the river you must drag, push, and carry that animal to land if you value him or his cargo. Then stand back while he shakes his head!

A mountain mule is very particular and private about his ears. Those precious appendages must on no account be trifled with. We had one mule whose head it was necessary every morning to strap down to a log in order to put the bridle on, all because she was so "touchy" about her ears while perfectly gentle in other respects. The result was, she was compelled to wear a permanent bridle, the bit alone being taken off at night. Those restless ears are wonderfully expressive—a perpetual index to the animal's mind. When the little beast lays them tightly upon its mane look out! It is bent on mischief. When they are upright, and twisted backwards, there is supposed to be danger in the rear, and likely enough you will suddenly find yourself behind. When they point straight forward guard lest you are shot over them; if they are limber and waggish there is no telling whatever as to the next move. Notwithstanding this excessive delicacy, when the flies are very thick you may lash their heads all day with branches, and they will only thank you.

If you can never gain the confidence of a mule, much less does he merit yours. I have known one to carry his rider in the most exemplary manner for hundreds of miles, and then one morning begin a series of evil antics and develop an unruliness as uncomfortable as it was unexpected. They are forever doing something surprising, pulling heroically through real difficulties to tamely give up before some sham obstacle, immediately afterward, terror-stricken at nothing, and unalarmed at what you naturally supposed would stampede them with fright. Mules naturally are timid, and absurdly so. If one scares all the rest are frightened. A piece of black wood, like the embers of an old camp fire, will cause almost any mule to shy. A certain shaped boulder was invariably regarded with distrust by one I used to ride. Rattlesnakes they hold in just abhorrence; bears paralyze them with terror; Indians they cannot be spurred to approach.

Mules are social beings. They become so accustomed to being together and following the bell-horse that you may trust their staying with him as far as you can trust them at all. It is upon this principle that all pack trains are conducted, and

it has been the salvation of many an outfit. Once the Indians ran off with our herd in the darkness of a stormy night. One of our muleteers immediately discovered the loss, ran to the camp of the half hostile Indians, who were just preparing to vamoose, and yelling as though he had a regiment of fiends with him, with his sombrero folded into the semblance of a revolver, he dashed among the astonished savages, leaped upon the bell-horse and galloped away with all the mules following. It was a far braver thing to do than you have any idea of.

This attachment of your mule to the bell becomes a great nuisance when you come to ride along with the train, making equestrianism a dreary labor, notwithstanding the fact that the gait of most mules is as easy as that of horses. Mile after mile you plod along in the rear at a right-foot-left-foot, right-foot-left-foot jog, that wears out muscles and patience. The sun beats down, the dust rises up, and your only entertainment is the cow-bell hung on the neck of the leader. The first hour you do not mind it much; the second, it grows wearisome; the third, painful, and you hold your ears to shut out the monotonous clangor. After the fourth hour you go crazy. All life centers about that tireless hammering and your mind loses itself in endlessly conning some absurd refrain in unison with the ceaseless copper-clatter of that ding-dong bell.

"Hoky poky, winky waz,  
Lunkum lunkum musc daz,  
The Indian swore that he could hang,  
The man that couldn't keep waria."

That's the kind of music to march by.

"But why do you not take unto your mule wings and flee away from this?" asks one. Because you musn't, and because you can't. You musn't, first, since it would soon wear out the little beast that must carry you two thousand Western miles this summer—and Western miles are a good deal longer than Eastern ones. You can't, second, for what is misery to you is melody to the mule, and if you try to ride him outside the hearing of the bell he may perhaps be made to go, but it will be in such a protesting, bawling, lunge and blind way, with such "uncertain step and slow," turnings of reproachful eye and brayings of mouth, that you will find it better to endure the evil of the pack-train than to try to escape from it. Stop behind to pick a flower and you must tie your mule as strongly as you would moor a frigate. A mule cannot bear to be left alone, and although he knows that he can go straight back from wherever you may take him, following a trail like a squire, yet he considers himself hopelessly lost and forlorn when he can no longer hear the bell. It is his use and habit to go with it; it means everything that makes life happy for him and he will endure very much punishment before forsaking it.

Mules have much individuality, and take strange notions. One can see this in their countenances. They vary greatly in sagacity and in tractability. All their characteristics are positive, and frequently asserted in the most startling manner. They are crotchety, too. One I knew would never allow himself to be caught to have his pack put on or adjusted until all the others had been attended to; then he was quite ready. Another was a good and gentle riding animal, and had no objections to your pipe, but you must get out of the saddle to light it. Strike a match in the saddle, and the devil entered into that breast on the instant. It is often impossible to overcome these prejudices. I had a mule once that would bray ferociously and incessantly whenever it was out of hearing of the train-bells. It was an excessively annoying habit, and, persuasion failing, I used to dig my spurs into its sides, and hammer its head first with a strap, then with the butt of my pistol. I felt that there was no sense in the absurd practice, and was bound to break it at once. But after an hour or two it was hard to keep my seat, for about once a minute the beast would duck its head and jump as though propelled from a cannon, uttering a terrible bray, as though just to invite punishment. So I changed my tactics—paid no attention to the noise, and in a couple of days had no further annoyance. They know what disturbs you, and maliciously do that one thing, regardless of pain to themselves. Another mule I had was an example. He had a trick of swelling himself out when I put the saddle on, so that it was impossible to draw the girth tight; I might as well have tried to draw in the waist of a steamboat boiler. I always had to catch him unawares, after we had got started, in order to tighten the girth sufficient for safety. There is no denying that they are very wise and cunning in their way, hardly any denying that they can talk among themselves; but it is an unfortunate fact that their wisdom is all exerted for wickedness, and their conversation used chiefly in plotting combined mischief.

It happens, therefore, that an Eastern man unused to working about mules, finds their tricks and treachery, lively heels and diabolical disquisitions, a constant check upon the enjoyment of Western wandering. The mule packers are the most desperately profane men I ever saw; they exhibit a real genius in profanity. It is not surprising, considering the continual vexation to which they are subjected, and which they must not retaliate, lest they should injure the precious strength and carrying power of the little animals, upon whose endurance their lives and fortunes depend, and which make mules far more valuable than horses, after all, for mountain service. But it is my honest and serious opinion, founded upon much observation, that so long as any considerable number of pack mules are employed there, it is utterly useless for any missionaries to go to the Rocky Mountains. I doubt whether there is power enough in Christianity to overcome the wicked influence of the mule.

ERNEST INGERSOLL.

## VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.—NO. 2.

BY THE EDITOR.

GENTLEMEN:

October 25, 1877.

It is generally easier to imagine what may be than to remember what has been. There are few events of our lives that impress themselves so indelibly upon the memory that they remain vivid and green until the end. In taking up the back track (as a woodman would say) of my vacation rambles, I find the trail so cold that I am often at fault. Interesting incidents and observations, names of persons, places and things, which gave pleasure and satisfaction for the time being, have passed quite out of mind, so that I am exposed to one of two inferences, namely: that my journeyings were monotonous, rapid, stale and unprofitable, or that I am unimpressible, listless and ungrateful to the many friends who vied with each other to make my vacation agreeable and improving to body and mind. For instance, I remember we hunted for grouse one week in Southern Minnesota. My friend John Swainson, of St. Paul, had a beautiful red setter, whose sagacity was fully up to his nose, and both were seldom at fault. He was a good dog, and stood on many a bird for my bag. He had a noble pedigree, too, and John, our venerable venator, his master, was justly proud of him. He was an animal to be remembered, and yet, woe's me! I've forgotten his name! What ingratitude must I reproach myself for! Thankless for every chicken promptly retrieved and brought to hand! Thankless for cautious drawing on birds so that none were prematurely flushed! Thankless for hard work afield in the broiling sun of noonday! What will be my reward when I shall seek hereafter to enter the Dog Heaven? Shall I not then be forgotten as well by the dog's master as by the dog?

This comes of losing one's notes and memoranda by capsizing in the Mississippi River. I shall never take notes again if I can be capsized. *It's a waste of time.* I remember seeing some of our "goods" floating afar down stream, while I was still swimming determinedly for the shore athwart a four-mile current. The wind was blowing more than fresh, and speeded them on their career. I saw them, as the minstrel sings,

"Way down on the Mississippi floating:  
Long time they traveled on their way—"

And then finally they all sank to the bottom! They say, 'tis "an ill wind that blows no one good." This was one of these winds; it did not waft one good to the shore. Fortunately my mishap came after my rambles had been two-thirds accomplished; and I have to affirm despite catastrophes and appearances of negation, that my vacation was not only pleasant but profitable. Of this I will try to convince you.

Michigan is now, comparatively speaking, one of the older States. We discover this after we have gone farther West. Visitors of scarcely thirty years ago are surprised to find much of its then wilderness now settled and cultivated. Its southern and middle section is carpeted with meadows and grain fields, and dotted with villages and hamlets. It is the great orchard of the West—the distributing fruit centre of all the country northwest of Pennsylvania. What luscious apples one finds on the west shore! All the hardier fruits grow there in full perfection. That is the section which old Père Marquette and his co-evangelists selected for the establishment of their missions; and it is astonishing to discover with what unvarying sagacity they always chose the most salient points throughout America as respects climate, accessibility, military strategy, or missionary work. Modern geographical explorations, or recent surveys have failed to discover more eligible or commanding sites than those they selected. Grand Rapids is the "hub" of Michigan. I do not know that its influence extends beyond where it is carried by its many distinguished representatives at Washington and elsewhere. I cannot conjecture that it would disturb the system of the universe if its single light was snuffed out.

It certainly has not the commercial importance of Chicago or St. Paul. It is not the focal point of a vast internal commerce, nor yet the frontier distributing depot of an illimitable and rapidly growing region from whose multiplying settlements come constant demands for farm implements, mechanical apparatus, and consumable goods of all kinds. But one fact must be accepted, namely: that the State of Michigan could not do without it. Grand Rapids supplies all the households of the State with furniture manufactured from the beautiful hardwoods that adorn and enrich its swaying forests—its beech, ash, oak, hickory, curly and bird's-eye maple, which the extension of the Grand Rapids & Indiana Railway to its northernmost limits has made opportunely accessible. It manufactures the "chairs of State" which it fondly hopes its aspiring statesmen may some time hereafter fill. It utilizes in many ways all the products of the forests, farms and quarries of the State, and obtaining them cheaply grows rich upon their ready sales and reasonable profits. It grows also in population and architectural beauty. It has 35,000 inhabitants; it has also thirty-five churches, and yet is not impoverished! Just imagine the pecuniary strain that compels one thousand men, women and children, including paupers, to support a whole church and its minister! Consider for one moment the encouragement afforded to the minister to "be not backward in well doing." ["Why do the heathen rage and the people imagine vain things?"] I consider a single church spire in a village of moderate size an indication of refinement, thrift and good order, especially if it be of fair architectural

aste and well-painted; but if I were seeking a place for permanent residence and discovered several steeples I would skip it instantly and move on further, no matter how luxuriously the trees clustered in its streets or how lustily the cocks crew in the genial warmth of its morning sun.

Grand Rapids occupies both sides of the Grand River, a lively stream that tumbles through its purlieus in a series of rapids, and then flows forty miles in volume sufficient for navigation, emptying into Lake Michigan at Grand Haven. Its business portion covers what was the river "bottom," and its environs spread over and crown the surrounding hills in picturesque demesnes and charming villas of no ordinary pretensions. The streets are abundantly shaded, and the general aspect is cheerful and vivacious, encouraging good humor even "in storm and wintry weather." The principal structures are of the cream-colored brick, which so generally prevails throughout the Northwest and Ontario, in the cities of Toronto, London, Bay City, Saginaw, Milwaukee and St. Paul. Its hue and tone are most grateful to the eye. It combines with granite, blue stone, red and olive sandstones and red brick with the most striking and successful architectural effects. It always looks clean when it is most dirty, and bears weather stains like a veteran trooper. It looks cool in summer, and is in sufficient contrast with the sparkling snow to wear an aspect of warmth in winter, especially when worked up with darker trimmings. The attractions of surrounding garden flowers are enhanced by their contrast therewith, and the green of their foliage or of window-blinds is not "killed" as it is when in contact with red brick.

To the two principal hotels in Grand Rapids too much praise cannot be given. I believe they are in some measure connected under the same management. Mr. Furnham Lyon, who has some supervision of each, as well as of the Baneroff House, at East Saginaw, is perhaps the best known caterer in the Northwest, and is deserving of a reputation that has been well earned. To "know how to keep a hotel" implies a knowledge of housekeeping on a magnified scale. The mistress of a household knows how many vexations attend her daily avocations; how much hard labor and constant attention is required, and what a continued mental task it is to provide the reasonable variety of food required for three meals per day for her small family; but to provide four and five meals a day, year in and year out, for a community of several hundred, with all the variety and perfection in cooking which the most fastidious require, as the leading hotels do—why, the duties of a quartermaster-general are nothing in comparison. The quartermaster's menu is not complex. The soldier does not require much time to study up the bill of fare, and it is as easy for the quartermaster to order the heads knocked out of a thousand barrels of hard tack at once as out of a single one. A quartermaster couldn't run a hotel. The tables of the Morton House and Sweet's Hotel are uniformly good, and the charge of \$2.50 per day is so moderate that a man can eat his daily bread without feeling that he is robbing the poor box or hypotheating the appropriation for his funeral expenses.

Although Grand Rapids is technically neither grand nor rapid (it cannot be considered a "fast" town), I like it well, and I believe that no stranger leaves it without hoping to visit it again. This is more than old Lot could say of Sodom and Gomorrah.

The town of Grand Haven, near the mouth of the river, is a much frequented resort for the people of Grand Rapids, who make excursions by rail or steamer during the summer season, and the Cutler House at that place is worthy of the reputation it enjoys as one of the most charming watering-place hotels in the Northwest. Mineral water is the principal beverage used there. Reed's Lake, three miles out of Grand Rapids, is the objective point for pleasant drives, and the little steamers, sail-boats, bass-fishing, picnic grounds and bathing, afford a combination of attractions. Fulton Park is a favorite resort. I am particular in mentioning the characteristics of the places I visit, because I know I am writing to many people who have never visited the West, and have little idea of what is to be seen there.

The completion of the Grand Rapids and Indiana railroad has benefited this place considerably by opening up the great central timber region of the northern part of the peninsula. The company offer such inducement to settlers that possibly 30,000 have located along its line between Grand Rapids and Petosky within the past five years. Its entire policy is liberal, and its management economical and trustworthy. The hardest worked of its officials is W. O. Hughart, Esq., its indefatigable president. His unremitting labors are varied only by an occasional excursion to Bear Lake, near Petosky, where he has an unpretending shooting-box. John H. Page, until lately its general passenger agent, has done a great deal to bring the country, which the road traverses, into public notice, especially by publications in the interest of sportsmen. One of these is a pamphlet with maps, designating all the principal fish and game resorts, to which the company has provided expeditions and comfortable means of access by land and water. Of these I shall speak in my next letter, and I shall hope to show that northern Michigan is one of the most attractive regions in the United States. It is by no means all a wilderness. One can take his family with him wherever he may elect to go, and no Benedict can leave his compliant wife at home under the plea that the journey is too rough or the hardships too severe. Let all the married women who read this remember it.

HALLOCK.

WANTED.—A copy of the "Naturalist's Directory," printed at Salem, 1877, for use in this office. The edition is out of print.

## OUR WASHINGTON LETTER.

PARTRIDGE SHOOTING AND WHERE IT MAY BE ENJOYED—  
FARMERS BECOMING INTERESTED IN GAME PROTECTION  
—ETC., ETC.

[FROM OUR OWN CORRESPONDENT.]

WASHINGTON, D. C., Oct. 20, 1877.

OF all the land birds the partridge in this section affords by far the greatest sport. And now that the season is just beginning our sportsmen are anticipating pleasant times in the fields of Maryland and Virginia, where the birds are always plentiful. Our gunsmiths are kept busy in repairing and cleaning fowling pieces, and the dealers in ammunition and gunning implements are doing a thriving business, although many of our sportsmen send to other cities for their supplies, and frequently send their guns abroad for slight repairs. A large number of them are induced to do this by the attractive advertisements which weekly appear in the columns of FOREST AND STREAM. We have first-class gunsmiths in this city, and there is no reason why ammunition and all necessary gunning utensils should not be sold here as cheap as elsewhere. I could mention several dealers who have good supplies, and offer articles equal to those procured in other cities, but the great trouble with many of our Washington merchants is that they do not spend enough money in advertising. They have yet to learn that every dollar invested in parading before the public their establishments and wares is sure to bring increased trade, and result in a more extensive business. There are some exceptions, and here as well as in other cities men who have liberally patronized the advertising columns of papers build up their business, and make money, no matter if the times are dull. The columns of a journal devoted to shooting, fishing and other out-door sports should be patronized by our gun-dealers and others having goods used by sportsmen. The FOREST AND STREAM, with its large circulation, not only in this city but throughout the States of Maryland and Virginia, is the medium through which they should make their places of business known, and then Washington will come in for a good share of the trade of sportsmen.

The close season for partridges (*Ortyx virginianus*) in the District of Columbia expires on the first of October. Rather too early, as the last brood of young birds are hardly feathered by that time. The bill introduced into the Senate some time ago for the preservation of game in the District, proposed to fix the close season from the 15th day of January until the first day of November. The 15th or 20th of October would be a more suitable date to end the close season, and such amendment will probably be made, should the bill ever be considered. There are within the limits of the District generally a good many birds at the beginning of the season, but they are soon killed or driven into the neighboring counties of Maryland by the constant shooting. In some of these counties it is unlawful to shoot them before the 15th of October, and in others before the 20th, while in Virginia, under the new game law they cannot be killed before the first of November. As a game bird the partridge ranks next to the jack snipe (*Gallinago Wilsoni*). All sportsmen will agree with me that the woodcock (*Philohela minor*) ranks first, the jack snipe next, and the partridge third in the list of game birds of this section. Toward the latter part of October, by which time the young birds have attained nearly their full growth, they are fat and juicy, and beyond doubt a very toothsome delicacy, the flesh being white and tender. Like many other game birds the partridge is known by different names in various sections, that just mentioned prevailing in the Southern and most of the Western States, while in the Middle and Eastern States it is called quail. Probably there are more partridges killed in the States of Maryland and Virginia every fall than in any other two States of the Union. Many are killed legitimately over dogs, by sportsmen from New York, Philadelphia, Baltimore and other cities, but great numbers are trapped and sent to the markets of these cities by pot-hunters, and unless this trapping business can be broken up the birds will soon be growing scarce in these States. The new game law of Virginia makes it unlawful to capture partridges at any time by means of nets or traps of any kind until after the expiration of two years from the passage of the act. As it is contemplated to further amend this law, it is hoped that the trapping business will be prohibited for all time.

There is not a more delightful field sport than that of shooting partridges. It can only be enjoyed in the autumn, that season

"All in yellow clad,

As though he joyed in his plentiful store,"

when the bracing atmosphere of the frosty morning sends the blood of the sportsman coursing through his veins with renewed and freshened life. The favorite ground of the partridge in this section is upon old wheat stubble fields, where they are always found until ten or eleven o'clock in the morning, and again in the afternoon; but in the middle of the day they often retire to some neighboring briar patch or other favorable locality, where they preen and sun themselves. In very windy and rainy weather they take to the woods and thickets, where they feed on insects and berries, the bird being insectivorous as well as granivorous. In damp or rainy spells there is not much sport in hunting these birds as they seem to prefer running in such weather rather than take flight. It is only in calm, clear weather that the sportsman can enjoy the shooting to any extent, as the birds will then lie to a dog, and take wing when forced to, instead of running a quarter of a mile or more as they do in wet seasons before they can be flushed.

It has been held by several prominent ornithologists that the partridge is gifted with the power of withholding its scent and often the best trained dogs are reprimanded for not finding birds carefully marked down. I cannot say whether or not the bird does possess such power, but close observation has convinced me that there are times when the dog, no matter how experienced he may be, cannot scent the bird. Frightened birds especially often puzzle the most careful dog. As an instance, I may mention that upon one occasion while shooting partridges in Orange county, Va., an old bird was flushed and wounded. He fell in the open field, and the place was carefully marked. We had three dogs, two of them especially being very reliable. They were scent for the wounded bird, and although it was an open stubble field with no place that we could discover for the bird to hide, the most diligent search failed to reveal its whereabouts. Carefully did the dogs examine the whole place within a short space of four or five hundred yards where the bird was seen to fall, and finally we left the spot, somewhat puzzled to know what became of the bird. It so happened that we crossed the same field several hours afterward, and upon reaching the place where the bird had been fired at and wounded, York, a faithful old pointer stiffened out, and the other dogs caught the scent almost as soon as he did. Then we found the wounded bird, still alive, but unable to fly. The dogs pointed it at the very place where it was observed to fall three hours previously, and at that time all three of them passed over this very ground a dozen times or more. The bird was hidden behind a stone, and it was evident to both my companions and myself that no scent was emitted from the bird when first wounded, else he would have been then found.

It has been held by some writers that the partridge can be domesticated, but several attempts to do so which have come to my knowledge do not sustain this assertion. I have known of instances where the birds during very severe winter weather have been found in barn yards, and even near the kitchen door of farm-houses for food, but with the advent of milder weather they again sought the fields and briar patches.

Several years ago Mr. T. Edward Clark of this city, while shooting on the farm of the late James Nokes, in Prince William county, Va., flushed and killed a white partridge, which he had stuffed and mounted, and it is now on exhibition in the museum of the Agricultural Department. It was in a covey with the ordinary birds and proved to be quite a handsome Albino specimen.

Although I have written a good deal about the rare sport afforded by partridge shooting in this section, I cannot refrain from mentioning some of the favorite haunts of this delightful bird, and I have no doubt that many of your readers have visited the very places; hence a reference to them will bring to mind the happy hours they have passed in the fields around Washington. Beyond a doubt the most desirable shooting ground is in Orange County, Va., near the head waters of the Pamunkey River, where the country is fertile and thousands of bushels of wheat are gathered annually, leaving stubble fields in many places of a hundred acres and more in extent. Here the birds are always abundant. It has been my good fortune for several years past to spend a week or so in that section, and we have frequently found half a dozen or more coveys of birds in a single stubble-field within half a mile of the residence of the gentleman with whom we were stopping. They are not hunted here to any great extent, and therefore are not so wild as in some other sections. It is an easy matter there to go out after breakfast, bag from thirty to fifty birds, and return to the house by noon. After dinner the sport can be again enjoyed during the afternoon, and when night approaches the sportsman can rest from his work, but neither himself nor his dogs feel that fatigue which is so often the case where birds are less plentiful. There are other favorite shooting grounds in Virginia, near Manassas Junction, and again in the vicinity of Clifton, to which I may refer in some future letter; and here I can only repeat what I have before had occasion to say, that the people of Virginia are courteous and generous, and a gentleman properly introduced is always made welcome by the farmers and sure to have good sport.

In Maryland there is a small village, about twenty miles from Washington, known as Tee Bee, in the neighborhood of which the partridges are quite plentiful and the shooting excellent. Being some distance from a railroad the birds are not driven off by constant shooting, and the pot hunter is unknown in that locality. At Nottingham some distance below, in the vicinity of Marlboro, and various other places, there are extensive stubble-fields and plenty of birds. In Montgomery County, lying to the north of Washington, the shooting is also good, so your readers will see that the Washington sportsmen are favored with a magnificent country within a few hours' drive of the city, where they can enjoy themselves at partridge shooting during the whole season.

The Game Protective Association, recently organized in our neighboring city, Alexandria, is in a very flourishing condition, and I am glad to say that the farmers in that vicinity are becoming interested in it. At a recent meeting several communications were received from farmers in the neighborhood of the city, offering all the aid in their power to the Association in promoting its aims. It was resolved to furnish each member with a descriptive card for their protection while hunting in the adjacent country. It was resolved to have posters printed and put up, containing a synopsis of the game laws, and the offer of a reward for the apprehension of persons found violating the same.

The Alexandria, Va., Gazette, of a recent date, says:

"This morning early several flocks of partridges alighted in the streets of this city. Several of the birds were killed with stones by the boys, who did not have the fear of the game laws before their eyes. In one case where a boy had knocked over a partridge, a hunting dog belonging to a citizen happened to come along and forthwith took possession of the bird and carried it home to his master."

Major T. B. Ferguson, the Maryland Fish Commissioner, has received 200,000 California salmon eggs from the McLoud River, California, as Maryland's quota of the eggs collected by the United States Fish Commission. The eggs were transported here in a refrigerating car. They have been placed in the hatching-house at Druid Hill Park. When hatched they will be distributed among the principal rivers of the State flowing into the Chesapeake Bay. It will be remembered that from seven to eight hundred thousand of the same variety of fish were placed in Maryland waters by the fish commission last year.

One of the great needs long felt by intelligent sportsmen is supplied by that admirable work, "The Sportsman's Gazetteer," by Charles Mallock, and published by the FOREST AND STREAM Publishing Company. The increasing demand for the book in this section is noticeable. I have heard many sportsmen speak in the highest terms of it, and one evidence of its popularity is that several booksellers have more than once been compelled to renew their supply. I have only to say from personal observation that it is the *no plus ultra* of sportsman's literature. R. F. B.

## FOX HUNTING ON LONG ISLAND.

FOR ten years and more, in the columns of the *Turf, Field and Farm* and in FOREST AND STREAM, at the clubs and whenever opportunity offered, the writer has urged upon the young men of New York the getting up of a subscription pack of hounds within easy reach of their city by boat or rail, but he found it very up hill work; for though the average young Gothamites are well up in most of the athletic sports, many of them being even capital whips, they are not at all familiar with the saddle, and only a few, a very few of them indeed, are capable of riding to hounds. It is therefore with great pleasure that I learn by your issue of Sept. 27 that some members of the Westminster Polo Club have at last succeeded in organizing a hunt at East Meadow Brook, on Long Island, and that a pack of hounds imported from England is to be kennelled at Garden City.

Under the management of such capital horsemen as Mr. A. Belmont Purdy, Mr. Griswold and a few others, we have a guarantee of the eventual success of the enterprise; but there are one or two facts which may prevent that immediate success upon which the fate of such undertakings usually depend. To the casual observer, the level plains surrounding Garden City offer a magnificent hunting country, but it is to be feared that the only merit of such a location is its accessibility to the city; with a surface of black mould, indicating great fertility, the soil of these plains is in fact barren, thirsty and sandy, and will not, it is to be feared, carry a good scent. As regards English foxhounds, I mean of course the best, such as are hunted at Belvoir, in Leicestershire, and half a dozen other places in England, though they are as near perfection as can be for hunting in their native land, they have been proved, except in the stud, utterly useless in this country. No one who is familiar with hunting in England or with the writings of "Nimrod" will deny the superb quality of the famous Queen pack. When the late Commodore Richard Stockton was abroad, forty or more years since, Sir Harry Goodricke presented him with three magnificent hounds from the Queen pack. The Commodore sent the dogs to the late John S. Skinner, to be added to the Baltimore pack, which, supported by the late Robert Oliver—grandfather of Mr. Oliver Colt, of Long Island—Judges Kell and Upton Heath, John P. Kennedy and other leading citizens, was in a flourishing condition, and hunted regularly through the season three times a week. The writer, then quite a youth, remembers perfectly well being sent with a servant to receive these hounds, and being astonished at the shortness of their ears, not being aware that it was customary in England to disfigure foxhounds by clipping, or rather rounding the ears to prevent laceration by briars and brambles; but these hounds were truly magnificent creatures—deep chested, and as straight in the forelegs as a winner of the Altceet Cup. They had powerful loins and prodigious bone and muscle. Of course the advent of the foreign hounds created a great sensation among the hunting men, and the "meet" which was near North Point, was largely attended, some gentlemen coming all the way from Fairfax in Virginia, and from Washington City to be present.

The English dogs were in superb condition, and as old Amy, the huntsman, observed, "Took de shine out of our native dogs completely." Soon after sunrise, with the dew yet heavy upon the ground, the hounds were thrown into a thicket of second-growth pines, where a fox was soon found, which, after running a ring or two, broke cover almost under the noses of our horses, and struck boldly into an old field of great extent. Every dog was well up and in full cry, the strangers coming out of the cover at the tail end of the pack; but in two minutes or less they were in the lead, and in two minutes more the natives were left entirely out of sight in the rear. Such a marvelous burst of canine speed had never been witnessed before in Old Maryland. But what astonished everybody still more was the grand style in which

the foreigners took their fences in their stroke, flying over them like birds. It was really wonderful, but as the Frenchman remarked of the charge of the five hundred at Balaklava, "C'est magnifique mais c'est n'est pas la guerre." The imported dogs, though they had a burning scent, overran the trail at every sharp turn of the fox, thus causing constant checks; but, worse than this, they ran nearly mute. Now, in a country still abounding in wood and dense cover, as is ours, where more than half the time we are guided by the ear in following the pack, a hound that does not throw his tongue is useless. After giving the new comers a fair and patient trial, they were reluctantly sent off to Mr. James Caldwell at the Greenbair, White Sulphur Springs, where they were used for driving deer, hence I fear that if the hounds imported by the Westminster Club are, as is probable, from a crack English pack, failure, and, still worse, discouragement may ensue.

In America, our hunting may be said to be cover-hunting, where nose, staunchness, and, above all, mouth or tongue, are indispensable; whereas in the best counties of England, where the sport partakes more of the nature of coursing, speed and dash, always obtained at the expense of the music, and staunchness are the requisites in a good pack of hound.

One of the best of hunters of the present day—the peer of T. G. T., of Gaston, and of the Laird of Lochinvar, Captain Assheton, formerly of the British army, but now a "top sawyer" across the county of Fauquier, in Virginia—hunts as fine a pack as ever opened on the trail of a fox. This pack is of his own creation, by crossing a large "mouthy" English harrier of his own selection and importation upon the best native Virginia bitches. Would that the Garden City kennel held such a pack as his. When field editor of the Turf, Field and Farm I had an offer of eight couples of well-trained red fox dogs in North Carolina for the moderate price of \$700. A man accustomed to hunt these hounds was to come on with them. They were to be taken on probation, and if they did not prove as represented they were not to be paid for. I should have preferred such an arrangement to the importation of a foreign pack.

Another objection to Garden City as headquarters for the hunt is the fact that there are no wild foxes within a dozen miles or so of the place; the club must, therefore, be content to run bag foxes or a drag, and of the two I should prefer the latter. As a general thing captivity deprives a fox of the power of self-preservation, or, the country being new to him, he does not know where to go. He funks and is killed without a run, whereas the drag is entirely under your own control. You may choose your own line of country, the distance, and, what is important to city sportsmen, the hour for the meet.

If the drag is adopted it is important in the commencement to select an easy line of country until the "field" has acquired some familiarity with cross-country riding. In this way only can ladies and timid horsemen be induced to ride to hounds and acquire a taste for the sport. When this is done the difficulties may be gradually increased until the boldest will be put to their metal to follow the hounds.

It was once objected to me by an eminent banker and turfman of your city to whom I had suggested a subscription pack, that there were climatic difficulties in the way of hunting in the vicinity of New York, yet packs have been in existence for years at Montreal and Toronto, in Canada, and we have still extant the records of a subscription pack of hounds successfully hunted on Long Island shortly after the revolution by a Mr. Evers, ancestor to the present well known Wm. T. Evers, of New York; and who has not heard of Joe Donohue, of Jersey City, and Ryan, of Hackensack, who doubtless have already commenced this season to run the fox within sound of the chimneys of your own Trinity Church?

Let us hope, Mr. Editor, that the dangerous game of polo will be entirely superseded by the far more noble sport of fox hunting; but to make the latter popular there should be no exclusiveness. Provided he be not a disreputable character, take any man's subscription; let the sport be as democratic here as it is in aristocratic England, where a tinker, if he can, may take precedence of a lord, or take a flying leap over a peer of the realm prostrate in a ditch. F. G. S.

The Rifle.

SIR HENRY HALFORD'S DEPARTURE.—We had the pleasure of a call from Sir Henry just previous to his departure for England last Saturday. He had intended remaining in the West some weeks longer, but the dangers on the Western hunting fields just now, and calls from home, determined his return at an earlier date. The British team captain is now on the Atlantic, and in the send-off, as in the original greeting; the officers of the N. R. A. strove to show him special honors, and reflect the feelings of good will which all American riflemen feel for the chief of what was in many respects the strongest team the Americans have as yet vanquished. Last Thursday he was accorded the honor of a special meeting of the Board of Directors, N. R. A., and a very friendly chat was had over the questions and details of future international matches. On both sides the feeling was in favor of a continuance of the British-American contests. Sir Henry Halford said he would be glad to continue the matches with the American riflemen. He suggested a change in the distances by substituting 1,100 yards for 800 yards. He also proposed a change in the range,

claiming that the Americans had the advantage by shooting on familiar ground. He would be glad to welcome them at Wimbledon, and return the hospitalities he and his team had received while in this country. Liberal offers of aid in procuring a distinctive trophy for competitions between British and American teams are promised, and the conference broke up with the promise by the visitor that he should strive to place such matches on the Wimbledon programme next year as should draw American riflemen to that side of the water. It was the intention of the committee to accompany the Inman steamer, bearing away the guest, down the bay on a steamboat, but this he declined, and instead Sir Henry was accompanied to the steamer by a delegation from the Board of Directors of the National Rifle Association, consisting of the President, Mr. N. P. Stanton; Maj. General Alexander Shaler, Maj. General John B. Woodward, Brigadier General Daniel D. Wylie, Messrs. E. A. Buck and George Schermerhorn, Jr., with several other gentlemen well known to fame as riflemen. At parting the honorable baronet said that he was delighted with his trip to America, and was particularly pleased with the friendly treatment which he had received from the American riflemen.

MASSACHUSETTS.—The Salem Meehanic Light Infantry, Co. K, and the Sutton Light Infantry, Co. C, of Marblehead, both of the Eighth Mass. Regiment, held a target shoot on the 17th inst., at the range of the Salem Rifle Club. The range was 200 yards, and each member was allowed three shots. The following were the four best shots of each company: Co. K: Thomas Moore, 13; J. T. Moore, 13; P. W. Jackson, 12; L. Hamilton, 12. Co. C: Geo. Orne, 13; J. C. Caswell, 11; W. W. Adams, 10; Chas. O'Hare, 8.

BOSTON, Mass.—The fourth match in the fall programme of the Massachusetts Rifle Association was begun Oct. 17 at the Walnut Hill range. The match is at long-range distances—800, 900 and 1,000 yards—and is to be shot on successive Tuesdays. Four prizes are offered, as follows: First, a breech-loading, double-barreled shot-gun, presented by a member of the Association and valued at \$125; second, a telescope valued at \$85; third, a life membership in the association, and fourth a silver medal. The match is open to all comers; 15 rounds at each distance, match to close when the entry fees equal three-quarters the value of the prizes, the winners to be determined by the average of the best three consecutive scores. The following was the record. It will be seen that Mr. Gerrish made the highest possible figure (75). The meteorological conditions on the 17th are answerable for the poor scores at 900 yards. After putting in one full possible, one 74, two 73's, a 71 and a 70, with other good strings at 800, it will be observed that 57 was the best score at 900, and 63 at 1,000 yards. The wind veered from 1 o'clock to 9, blowing such a gale that the tents were hurriedly removed; and the variations of wind-gauge allowance were fully ten points, from right to left and back again. The following are the scores:

Table with columns for names (William Gerrish, T. H. Gray, N. Washburn, R. S. Gray, E. W. Law, S. Wilder, A. H. Hebbard, J. E. Mann, A. Hebbard, E. Reader, J. Wemyss, Jr., C. W. Claveron, D. Kirkwood, C. H. De Rochmont, J. N. Frye, W. Poland, J. B. Osborne, W. E. Guerrier, W. Gerrish, F. W. Stevens) and rows of scores for 800, 900, and 1,000 yards.

The matches were continued Friday, the 19th, under favorable conditions of weather. The second match, which was open to all comers at distances of 200 and 300 yards, was for prizes consisting of a Peabody breech loading rifle valued at \$125, a life-membership in the Massachusetts Rifle Association, and two cash prizes. On the Friday previous, Mr. Hubbard was high man, with a score of 52. The individual scores in this match are as follows:

Table with columns for names (L. L. Hubbard, J. Langdon, H. T. Rockwell, E. B. Sonthor, D. Kirkwood, C. H. De Rochmont, J. N. Frye, W. Poland, J. B. Osborne, W. E. Guerrier, W. Gerrish, F. W. Stevens) and rows of scores for 200, 300, and 400 yards.

The third match was for three prizes, consisting of a bronze National Rifle Association medal and a gold and silver medal of the Massachusetts Rifle Association. This is a very trying match, the distances calling for superior skill at all points.

Last week Gerrish led with a score of 122. The following are the highest scores made:

Table with columns for names (J. Wemyss, Jr., William Poland, D. Kirkwood, Wm. Gerrish) and rows of scores for 300, 600, and 1,000 yards.

The rifle team of the Worcester Sportsmen's Club had a field day, Oct. 20, at the Greenwood range, in shooting for a gold badge, offered by Messrs. I. G. Blake & Son for the best total score of 800, 900 and 1,000 yards, 15 shots at each range, with a possible 225. Mr. Nathan Washburn won the badge. The full score was as follows:

Table with columns for names (N. Washburn, A. L. Rice, Frank Wesson, C. B. Holden) and rows of scores for 800, 900, and 1,000 yards.

Table with columns for names (S. Clark, G. J. Ingg) and rows of scores for 800, 900, and 1,000 yards.

Table with columns for names (A. G. Mann) and rows of scores for 800, 900, and 1,000 yards.

Table with columns for names (W. Hobson, S. Whittey, Wm. Whitaker, J. D. McLaughlin, Charles Vibbert, J. Douglas, G. P. Powers, O. H. Winslow) and rows of scores for 800, 900, and 1,000 yards.

—Wallingford, Conn., enjoyed a team match, Saturday the 13th, between selected squads of citizens and soldiers. The shooting was fair on both sides, but the "civits" proved the better men, and the national guardsmen were compelled to acknowledge a defeat. The beaten team were compelled to State arm, the Peabody, while the victors used the Sharps rifle; 500 yards was the range, the shooting being over the grounds used by Co. X. The full scores are:

Table with columns for names (Citizens' Score, Military Score) and rows of scores for 800, 900, and 1,000 yards.

Table with columns for names (E. Hobson, P. Whipples, Z. P. Beach, G. Dickinson, D. Ross, G. P. Powers, G. L. Barnes, J. Mix) and rows of scores for 800, 900, and 1,000 yards.

ROCHESTER, N. Y.—The Amateur Rifle Club of this city held the first of a series of short range matches on the 17th inst. The prize is a fine revolver, presented by Major Henry Fulton, and it is to be won three times before going into final possession of winner. The scores at the first contest stood:

Table with columns for names (C. E. Rider, S. A. Service, W. B. Smith, A. Roda, H. P. Hart, E. Angeline, C. Buckley) and rows of scores for 200 and 300 yards.

On the 24th the club met to shoot the second time for the barometer and bronze medal of the National Rifle Association, the match being open to all comers at 800 and 1,000 yards.

—I Co, Seventh Regiment, will compete for the Nevada badge at Creedmore on the 29th inst.

BALTIMORE VS. WASHINGTON.—The return match between the selected teams of the Maryland Rifle Club, of Baltimore, and the Columbia Long Range Rifle Club, of Washington, was shot at the ranges at Benning's, on the Baltimore and Potomac Railroad, near Washington, on the 18th inst. The Washington team was composed of Prof. Wm. Harkness, Col. J. O. P. Burnside, and Messrs. P. J. Lauritzen, C. H. Laird and Jas. E. Bell. The riflemen from Baltimore were S. J. Scott, G. T. Smith, A. V. Canfield, Jr., H. B. Coleson and E. W. Scott. An excellent day gave opportunity for good scores—clear light, and a wind blowing throughout the shooting, with little force, from the 6 and 7 o'clock quarters. At 800 yards the shooting was very good, particularly by the Washington squad; but at 1,000 yards there was a great falling off, owing, the marksmen said, to the unsteady character of the shooting platform. The range totals stood:

Table with columns for names (Columbia Team, Maryland Team) and rows of scores for 800, 900, 1,000, and Total yards.

A NATIONAL RIFLE MOVEMENT.—The Board of Directors of the National Rifle Association are circulating for signature a petition to Congress, having for its object that of procuring some enactment of a law which would authorize the Secretary of War to offer prizes to the uniformed militia of the different States and to the regular army and navy for excellence in shooting; to issue ammunition to them for practice, and to aid the construction of ranges and the general promotion of rifle practice in such portions of the country as possess a uniformed and properly organized militia, or where detachments of regular troops are located. This would effect a great and much needed reform, and would be strictly within the powers of Congress. The matter will soon be presented to Congress by the Hon. Benj. A. Willis, of New York.

CREEDMOOR, Oct. 20.—A cold drizzling day at Creedmoor last Saturday did not prevent a good attendance at the two off-hand matches on the programme, and good scores were shown at 300 as well as at 200 yards. It will be noted that out of a possible 50 in each match, the best winning score is shown at 300 yards. The first match contested was the fifth competition for the Turf, Field and Farm badge; 200 yards, 10 rounds, any rifle, off-hand. The scores stood:

Table of scores for Turf, Field and Farm badge at 200 yards. Includes names like J F Phinley, J F Rathen, John Cavanagh, M M Malby, W R Livermore, N D Ward, W M Farrow, W H Cochrane, Jr., R E Lewis, A M Miller, R W Day, G A King, D Banks, S F Kneeland, C H John, M Francis, C F Robbins, C Dewing, L Cass, T W Linton, C E Bydenburgh, G H Galt, G Rover, Patrick Farrelly, J L Faulding.

The Spirit of the Times new medal was competed for the first time. The conditions following exactly those which governed the previous trophy; 10 shots at 300 yards, off-hand, any rifle, open to all comers. The scores stood:

Table of scores for Spirit of the Times medal at 300 yards. Includes names like C H John, E Lewis, J F Rathen, W H Cochrane, Jr., C Dewing, W M Farrow, W R Livermore, C E Bydenburgh, A M Miller, N D Ward, C F Robbins, D Banks, G A King, M Francis, R W Day, John Cavanagh, S F Kneeland, M M Malby, I H Greve, Patrick Farrelly.

COLUMBIA RIFLE ASSOCIATION.—This popular organization held their annual fall shooting at Guttenburgh Park, N. J., the 15th and 15th instant. It was well attended by marksmen from the numerous clubs, and the shooting was excellent, as the scores will show. The target of honor (rings), open to members of Columbia Club only; ring or union target, open to all, and the point target were all that were used on this occasion; 200 yards; position, standing; ring target, possible 75, three shots.

Table of scores for Columbia Rifle Association. Includes names like Wm Hayes, P Fenning, Philip Rice, L Bird, J Raschen, C Zettler, J B Green, M B Egel, W Klein, M Dorrier, W M Farrow.

At the point target the bull's-eye is divided into three rings, numbering 1, 2, 3, 100 shots possible 300 points.

Table of scores for point target. Includes names like W M Farrow, Wm Hayes, W Klein, C Zettler.

At the target of honor the scores stood:

Table of scores for target of honor. Includes names like Geo Baier, C Horvey, B Lippman, A Erlusson, John Rehn, G A Kundahl, J Heintz, J Sueder, C Kundahl.

W. M. Farrow won the first and last flag prizes.

"WISCONSIN" writes: I notice that in last week's paper you give what appears to be a full account of the rifle matches in Chicago. You, I believe, omitted the mid-range match, which was as follows. The most exciting and best shooting of all: THE MID-RANGE MATCH AT CHICAGO.—As the teams in the interstate match retired to the one thousand yards range, Sir Henry Halford arrived on the ground, accompanied by J. K. Miller, R. S. Greenhill, and other members of the British international team. They at once proceeded to the five hundred yards range and began shooting in the individual match, open to any member of a regular rifle club. They had shot out their scores before the last of the team shooting was done, and left for the depot, pretty well satisfied that the prizes for that match belonged to that crowd, for Miller and Hyde had made forty-eight out of a possible fifty each, Miller taking first place under Creedmoor rules. Then the rest came down and began shooting. It was evident that forty-eight was necessary to get the silver, so, when any one dropped three he dropped himself out of the competition. Finally, the contest narrowed down to three, and became exciting, as there was every chance for either of them to beat the best scores yet made. There were Hill and Fielding, of Milwaukee, and Thompson, of Chicago. Hill shot his score through, making ten bull's-eyes, and first prize. At the sixth shot Thompson got a "centre" and Fielding followed with one in the same place. Then each made four fives, scoring forty-nine, their scores being symmetrical. So they had to shoot off for second place. After three bull's-eyes Thompson's mid range cartridges gave out and he put in a long-range cartridge, lowering his elevation a couple of points, but it was not enough, for he got a high four. Fielding furrowed the black and took the cup. Honors were therefore even. Illinois took the team prize, Wisconsin the individual. The scores are as follows:

Table of scores for mid-range match at Chicago. Includes names like David Hill, E Fielding, R S Thompson, J K Miller, George Millard, F Hyde, Sir Henry Halford, A G Alford, J Johnston, R S Greenhill, W H S Cleveland.

Ties on forty-nine.

Table of scores for ties on forty-nine. Includes names like Fielding, Thompson.

ENGLISH OPINION ON THE BIG MATCH.—The English press have been characteristically slow and cautious in their comments on the International Match, but once convinced that the victory is undoubtedly against them, and that the fight was fairly conducted, they are free to acknowledge the fact, though their explanations do not in every detail tally with our own. The inferiority of muzzle-loading weapons they are not ready to agree to. In a long leader on the match the Volunteer Service Gazette says:

Just four years ago the first prize meeting of the United States Rifle Association was held at Creedmoor. Immediately afterward Major Leech offered to bring an Irish team to shoot against the United States with match rifles. This challenge was accepted, and it was arranged that it should be shot for in the autumn of 1874. It would seem that this invitation or challenge, coming from a country whose representatives had just vanquished England and Scotland in the great small-bore match of the year, stimulated the American firemen to incredible exertions, with the result, as we all know, that to the unbounded astonishment of every shooting man here, they not only won the match, but won it with an average which had then never been approached. Not one of the least interesting features of this debut of the American long-range shots was that they had not only, if we may so speak, to learn to shoot, but actually had to construct a weapon to shoot with, for one of the stipulations made by Major Leech was that each team should fire with rifles manufactured in its own country. The American gunmakers were characteristically as ready to accept this challenge as the shooters had been to accept theirs, and boldly discarding the muzzle-loading principle turned out breech-loaders which were shown to shoot at least as well as the form of match rifle accepted in England. From the first match in 1874 the Americans have undoubtedly carried all before them, and have shown to what a pitch of precision team shooting may be brought. In 1875 they sent a representative team to Ireland, and shattered all the theories which had been framed as to the advantages accruing from the bright climate of North America. In 1876, on their own ground, they routed in detail the Irish and Scotch teams which attacked them; and now in 1877 they have successfully resisted the onslaught of a picked team of the best available small-bore shots of the whole of the United Kingdom. Truly Colonel Drake was right when he said last year, when the question of getting together a team from the United Kingdom was mooted, that whatever we did we should find the Americans "hard to beat."

As for the match of this year, the very ample report which we reprint from the excellent New York paper, FOREST AND STREAM, shows that the shooting was better than ever. Sir Henry Halford and his comrades need take no shame to have been beaten.

It only remains to be said that the great International Match of 1877 gives another instance of the honest and cordial good feeling which rifle shooting shares with cricket and one or two other forms of emulation. The winners are pleased, and the losers are only desirous of trying once more. It is not necessary to say that the reception of the foreign team was marked by the usual cordiality and hospitality of the American nation, and that Sir Henry Halford undoubtedly expressed the feeling of all his comrades when he announced his intention of, if possible, challenging the great trophy once more.

The American papers, particularly those which treat at all scientifically of rifle-shooting, are, of course, much elated at the success of the representatives of their country, and read us many good-humored lessons on the causes of our defeat, and the antecedent probability that such an event would happen. We are not, indeed, quite sure whether the Irish team, which carried off the Elcho Shield at Wimbledon in 1875 will be quite ready to acknowledge that, as one of the New York papers assert, the Irish victory was solely due to the "coaching" of their American friends. But we think that all our small-bore shots must admit it to be true that the drilling of teams for target shooting has been much more scientifically and systematically carried on in the United States than has ever been the case on this side of the Atlantic, and that the wonderful results which have been arrived at are due almost altogether to this drilling. It is for our captains to learn a lesson from their opponents. Our men are individually, as good, and our weapons are, we believe, at least as good as those used in America. When the Americans next visit us at Wimbledon, which we hope may be next year, or if Sir Henry Halford again takes a team across the Atlantic, we shall confidently hope that it may be shown that the small-bore shots of the United Kingdom can shoot as well together as they can undoubtedly shoot individually.

And, in concluding, the Gazette thinks:

Everything seems, indeed, to have passed off in the most satisfactory manner—the Americans were evidently pleased with their guests, and the arrangements appear to have been nearly perfect. The more one examines the scores, particularly those of our opponents, the more one is astonished. The United Kingdom must manage to train a team during the ensuing twelvemonth which will bring the trophy across the Atlantic for once, if only to tempt an American team to come and fight for it at Wimbledon.

REGULAR ARMY PRACTICE.—The report of General Benet, Chief of Ordnance, made to Congress within the past few days contains some interesting facts touching the confessed inability of our regular army men to make anything like a respectable showing before the targets. That such a deficiency does exist, with few exceptions, is beyond question, and it has frequently been remarked that much of the apparent want of success on the part of the troops in their encounters with Indian outlaws is the fact that the savages know how to make their firing effective, while the soldiers waste their efforts and ammunition in wild shooting. At many points where regular troops are stationed, target practice is not systematically followed out, if attempted at all, and at many other stations it is only the presence and example of the resident militia which has compelled them to a certain amount of drill. This state of inefficiency has been the natural outcome of a miserly system of restriction in the issue of ammunition. Certain it is that without a reasonable supply of material with which to practice, the men will never reach even a reasonable degree of skill in the use of the regulation arm. General Benet speaks as follows:

In no one particular are we so lamentably deficient as in the

supply of metallic ammunition. Until recently only ten rounds per man per month for target practice has been allowed, making a total of 3,000,000 of cartridges required annually for this important purpose. Experience has conclusively proved that this allowance is entirely inadequate to teach the soldier the use of his rifle, and perfect him as a marksman. Constant applications from the troops and from commanding Generals for a larger supply clearly indicate its absolute necessity, and upon my recommendation the allowance has been doubled, making the annual expenditure 6,000,000 of cartridges. Our reserve stock of cartridges, calibre 45, is only 9,000,000.

The Separate Troop Cavalry, at Oswego, have challenged the Forty-Eighth Regiment to a rifle match for a supper—distance for infantry 200 and 500 yards with rifles; for cavalry 200 and 300 yards, with carbines. The infantry team is composed of Col. C. V. Houghton, Lieut. J. S. Barton, Serg't L. L. Barnes, Corporal A. Grosby, Serg't-Major Geo. Whit. The cavalry team will be Capt. Turner, Lieut. Newell, Lieut. Wellington, Serg't Haven and private Wagner.

ANOTHER CHALLENGE.—The Zettler Rifle Club, discontented with their defeat at the fall shooting of the Helvetia Rifle Club, has challenged the latter club to another match, which will take place at the Schuetzen Park in Union Hill, on Monday, October 29. Great interest is attached to this match, the result of which I will not fail to communicate to you for publication in your next issue.

S. O. V.

AMATEUR RIFLE CLUB.—The Competition for the Bronze Medal of the National Rifle Association, will take place at Creedmoor, Long Island, Saturday, October 27, 1877, at 10:30 A. M. Conditions, open only to members of the Amateur Rifle Club; distances: 800, 900 and 1,000 yards, fifteen shots at each; no sighting shots, coaching or previous practice on day of match allowed; position and rifles, any within the rules. Entrance fee, \$1. Prize to become the personal property of the winner in this competition.

JOSEPH HOLLAND, Secretary.

CONLIN'S RIFLE GALLERY.—Mr. Conlin has inaugurated something new in the way of gallery competitions, which cannot help being popular. The prize offered is an elegant gold badge which is to be won three times, not necessarily consecutively, before becoming the property of the winner. The following are the conditions of the match: Each competitor to load his rifle and fire as many shots as he can within one minute and a half's time (by the sandglass) at a reduced Creedmoor target. The competitors to be shot every Monday evening till the badge is finally won. Each competitor to have two trials during the evening. If a shot should be fired after "time" is called the average value of one shot will be deducted from the total score. In case of a "tie" another target to be shot. All disputes to be decided by a referee. Open to all comers.

The first competition took place last Monday evening.

Table of scores for Conlin's Rifle Gallery. Includes names like Thomas Wilds, M. D., Pierre Lorillard, Dr. Dudley, J D Cheever, A J Howlett, Judge Sherman Smith, E Koenig, H A Shearman, R B Thurston, R Finnegau, G Work, A J Wilson, Wm Klein, C E King.

The second competition will take place at this gallery next Tuesday evening, Oct. 29, 1877.

A CORRECTION.—A correspondent writes to correct the score of Mr. A. G. Alford at the long range match at Chicago the other day. The score should have been 75 instead of 74, as stated.

THE "UPSET" OF BULLETS.

I will give you, in brief, the experiments of Mr. A. S. Fowle, a rifle maker and rifle shooter, of Newark, N. J. In conversation with Mr. Fowle, he was satisfied that there was some thing that impaired the flight of missiles when quick powder was used, and he had no doubt but they were forced out of shape while in the gun, and on a favorable occasion he instituted the following experiments: Perhaps the most important of these experiments were conducted by a .44-cal. muzzle loading rifle, 230 grains of lead and 89 grains of powder. All the powder used was Hazard's. It was found by shooting 6-0 yards and landing the missiles into a ligat, but very thick snow-drift, when coarse, slow powder was used (I think No. 4 duck size), the missile was perfect; but when the powder was reduced to finer, the missile was perfect, with little change in trajectory, the missiles were quite visibly upset or flattened at the front; and where the powder was reduced to FFFG, the missiles were mashed like putty, and their flight was seriously disturbed. At each charge of powder a new locality in the drift was chosen, so that when the snow thawed away, those missiles that could not be found before could then be gathered in their order; and, not at all strange to me, the missiles were found mashed regularly as the quicker powder had been used, and none had stripped or jumped the rifle.

The next experiment was with a Remington Creedmoor, regular sized missile, containing 1-32 tin. With 165 grains of FG powder these were visibly upset. As these by their weight and great force would pass through the drift and reach the ground, thereby getting scratched and sometimes bruised on the point, it became necessary to determine whether the missile was upset by contact with the air or the earth, and, in order to do this, Mr. F. inserted snugly a hard piece of wood that just filled the inner chamber of the missile, which, it was thought, while the two forces were acting simultaneously, it would prevent the upsetting of the missile at that point. On shooting, the fact was proved. Every missile fired was now upset from the point to the plug, and from the butt or heel the danges also swelled to the plug, leaving a distinct neck opposite the plug.

It is here claimed that if the mash or upset had taken place by contact with the earth, the mash would have extended through both wood and metal, and would have been greatest at the point of contact; but, on the contrary, the mash was evenly distributed through the point of the missile to the plug. The shortening of these Creedmoor missiles, with 165 grains powder, was near one-eighth of an inch; those fired with 89 grains were not visibly compressed, notwithstanding they were variously scraped on the side of the convex point by contact with the earth, like those fired by the 165-grain charges.

We regard this knowledge of the air resistance in guns important to rifemen, since by such experiments it may be determined exactly how much force the metal they use for missiles will bear without injury to their flight.

STRAIGHT-BORE

# Yachting and Boating.

HIGH WATER FOR THE WEEK.

Date.	Boston.		New York.		Charleston.	
	H.	M.	H.	M.	H.	M.
Oct. 26.....	1	40	10	51	10	09
Oct. 27.....	2	31	11	44	11	04
Oct. 28.....	3	23	0	14		
Oct. 29.....	4	22	1	14	0	34
Oct. 30.....	5	26	2	10	1	39
Oct. 31.....	6	29	3	20	2	43
Nov. 1.....	7	30	4	25	3	44

**THE AMATEUR OARSMEN REGATTA.** The regatta of this association on the Kill Von Kull last week was hardly a success. The races were interrupted by the inopportune presence of tugs and tows. The time of the winning crews for the mile and a half course were:

- Junior single sculls—E L Rodewald, 10m 45s.
- Pair-oared shells—Atlantas, 10m 40 3/4 s.
- Four-oared shells—Columbia crew, time not taken.
- Four-oared junior gigs—Carman crew, 9m 41 3/4 s.
- Senior single sculls—Won by G W Lee, of the Tritons.
- Six-oared gigs—Won by the Danntles crew in 10m 2 3/4 s.

**THE OSWEGO RACE.**—The single-scull race at Oswego last Wednesday resulted in another victory for Courtney. The time for the three miles was 29m. 14 1/2 s. Riley was second, and Johnson third.

**NEW JERSEY—Burlington, Oct. 20.**—The third annual regatta of the Oneida Boat Club was rowed by the following crews: Undine, Quaker City, West Philadelphia, and University of Pennsylvania, of Philadelphia; Oneida and Falcon of Burlington. The race was finished in the dark, the time being given for the one and one-half miles, Quaker City, 7m 11s.

**THE MISSISSIPPI VALLEY OARSMEN—Chicago, Oct. 16.**—Editor of Forest and Stream: The amateur oarsmen of the West held an important meeting to-day in the club rooms of the Palmer House. There were delegates present from nine of the leading boating clubs of the Mississippi Valley. The meeting was called for the purpose of forming an association fostering the interest of oarsmen. The Association will hereafter be styled "The Mississippi Valley Amateur Rowing Association." It was decided that an amateur is one who has not entered in an open competition; or for either a stake public or admission money, entrance fee, or competed with or against a professional for any prize; who has never taught, pursued or assisted in the pursuit of athletic exercises as a means of a livelihood; whose membership of any rowing or other athletic club was not brought about, or does not continue because of any mutual agreement or understanding, express or in public, whereby his becoming or continuing a membership of such club should be of any pecuniary benefit to him whatever, direct or indirect, and who has never been employed in any occupation involving any use of oar or paddle. It further provides that the executive committee shall be judges of the fact.

Two annual conventions are to be held, to consist of two delegates from each of the clubs in the association. The by-laws provide for an annual regatta two days in June, the time to be fixed by the executive committee.

The regatta laws of boat racing of the National Association of Amateur Oarsmen have, with a few minor changes, been adopted as the rule of this Association.

Tiffany & Co., Silversmiths, Jewelers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. TIFFANY & CO. are also the agents in America for Messrs. PATEK, PHILIPPE & Co., of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones, General Jewelry, Artistic Bronzes and Pottery, Electro-Plate and Sterling Silverware for Household use, fine Stationery and Bric-a-brac, is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York.

## New Advertisements.

### Piper Heidsieck

AND PIPER "SEC."



For Sale Everywhere.

JOHN OSBORN, SON & CO.,  
45 Beaver street, New York,  
and  
44 St. Sacramento street, Montreal,  
GENERA' AGENTS.

Oct 11  
25 FANCY CARDS, snowflake, damask, etc., no  
2 alike, with name, 10c. Nassau Card Co.  
Nassau, New York. Oct 25 1881

### Wanted.

**WANTED.** Everybody to subscribe to the *Southern Poultry Journal*, A Handsome, Illustrated Monthly Magazine, devoted to Poultry and General Sporting Matter. Only \$2 per year post paid; sample copies 20 cents. Correspondence solicited for the various departments of the journal on all subjects of interest relating thereto.

Secretaries of Gun and Rifle Clubs are requested to favor us with notes of their movements, etc.  
Address  
E. B. HARTWELL, PUBLISHER,  
Oct 11 P. O. Box 69, Louisville, Ky.

**WANTED**—Inventions secured for \$2 (better than caveat). Send REDMOND, Rochester, N. Y., \$1, and see. Oct 25

### Sportsmen's Routes.

### A BUFFALO HUNT

—ON THE—  
Atchison, Topeka and Santa Fe  
Railway.  
THE NEW ROUTE FOR  
**KANSAS & COLORADO**  
SPECIAL ATTENTION TO  
**SPORTSMEN.**

For maps, tickets, and gen'l information, apply to  
L. H. NUTTING, Gen'l Eastern Agent, 29  
Broadway, New York.  
T. J. ANDERSON, Gen'l Pass. Agent, Topeka  
W. F. WHITE, Gen'l Ticket Agent, Kansas

### Sportsmen's Goods.

#### DUDLEY'S

**Pat. Pocket Cartridge Loader.**  
EXTRACTS, DECAPS, RECAPS, LOADS  
CREASES AND TURNS OVER  
CARTRIDGE SHELLS,

Equal to the most expensive machines. Is adapted to both paper and metal shells. Weighs but few ounces, and is as handy as a pocket knife. In short, is just what sportsmen have been looking for. Samples sent, postpaid, to any address on receipt of price, and if not satisfactory the money will be promptly refunded.  
Nickel-plated, \$2; polished, \$1.75; japanned, \$1.50  
Liberal discount to the trade; 10 and 12-gauge now ready.  
DUDLEY & CO.  
Pongkeepsie, N. Y. Oct 15 1881



**HOW TO LIVE IN FLORIDA,**  
HOW TO GO, COST OF TRIP, BEST TO SETTLE, what to cultivate, how to cultivate it, etc., etc. All told in each number of Florida New Yorker, published at 21 Park Row, New York City. Single copy, 10c. One year, \$1. 40 Acres Orange Land for \$50. On immediate delivery, country healthy, thickly settled. Address J. ROLLIER, Gen'l Agent, Box 5530, New York

# NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

MADE OF BROWN VELVETEEN.

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horse Smith, Esq., says: "It is my idea of a shooting coat." I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$10. For full Suit, \$35.00. Also the best brown corduroy pants at \$10 per pair. I make only the one grade, as the cheapest goods do not turn buyers and will not give satisfaction.

Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is The Best. Price for Coat, \$25; Vest, \$10. For full Suit, \$35.00. Also the best brown corduroy pants at \$10 per pair. I make only the one grade, as the cheapest goods do not turn buyers and will not give satisfaction.

F. L. Sheldon,

For Sale in New York by RAHWAY, N. J.

H. C. SQUIRES, 1 Cortlandt St., N. Y.,  
CREEDMOOR PARLOR RIFLE.

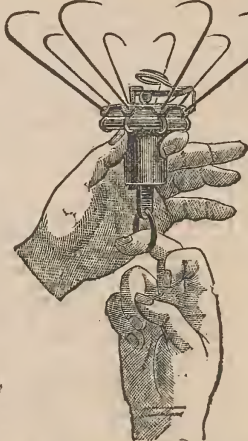


Finely finished, carved stock. Loads at breech with small percussion cartridges. Will shoot 250 feet with accuracy and force. There is scarcely any report, and no smell from this Rifle, making it very appropriate for parlor use, picnics and fairs. The shell extractor is on the hammer, pulling out the old shell every time the hammer is raised.  
Price, \$10; cartridges for rifle \$3 per thousand, or \$1 per box of 250. Iron ball target, with numbers, \$5 sent C. O. D. on receipt of price. Send for price list of Revolvers, Skates, Novelties and Sporting Goods.

FISH & SIMPSON,

132 NASSAU STREET, NEW YORK.

## A VICTORIOUS INVENTION The Eagle Claw.



An ingenious device for the purpose of catching all kinds of Animals, Fish and Game. The easy method of setting the Eagle Claw, combined with the simplicity of removing the victim, are among its peculiar advantages.

It is immaterial how to place it when set. It may be buried flat in the ground, suspended from the limb of a tree, or, when occasion requires, covered with grass, leaves or other light material without in any way impairing its certain operation.

It is adapted for both any description, and, when set, no Animal, Fish or Bird that touches the bait can possibly escape. It does not mangle or injure its victims in the slightest degree, nor need they be handled to free them from the trap.

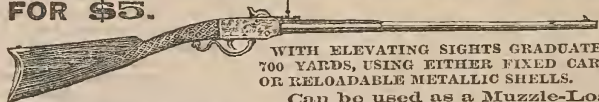
#### PRICE LIST:

- No. 1—For fishing and all kinds of small game and animals, sent by mail..... 35 cents.
  - No. 2—For catching Mink, Muskrat, Beavers, large Game, Fish, &c..... 75 cents.
  - No. 3, or Rocky Mountain Giant, for catching Bears, Wolves, Panthers, &c. Can be easily set by a boy, and will stand a strain of several hundred pounds. Weight, 10 to 15 lbs. \$10.
- All goods sent, charges paid, to any address on receipt of price. Address

Stent & Co., Gen'l Agents,  
132 Nassau St.,  
NEW YORK.

### AGENTS WANTED.

## A NEW BREECH-LOADING RIFLE FOR \$5.



WITH ELEVATING SIGHTS GRADUATED UP TO 700 YARDS, USING EITHER FIXED CARTRIDGES OR RELOADABLE METALLIC SHELLS.  
Can be used as a Muzzle-Loader.

**THIS IS THE BIGGEST BARGAIN WE EVER OFFERED!**  
The Rifles are all brand new and just as they came from the factory. They cost to manufacture over \$10 apiece, and are superior shooters; they are very finely finished, with case-hardened locks, blued accoutings, and handiwork formed black walnut stock barrels of the best steel, finely lined. The lock and graduated sight alone cost \$5, and as handsome and well made a rifle cannot be bought in the United States for \$25. The loading arrangement is a drop action, similar to a Ballard or Sharp, the simplest and best. Every man and boy in the country who needs a rifle should purchase one of these guns. Such a bargain will never be offered again. The editor of the "Boston Globe" says:—"Messrs. Taylor & Eben have offered me inducements to pay for one, and their new \$5 rifle is the most unexcelled bargain we ever heard of. It is well worth \$25, and we know that the price is very, very reliable." We have furnished several rifle clubs with this rifle, and have received many praises for their shooting qualities. If you have any use of a rifle, either for use or trade, order at once and say that you want our New Union Rifle, so as not to conflict with former advertisements. Remember that these guns are brand new, cost the manufacturer over \$15 apiece, and that we guarantee them as represented. Where parties wish to see, call on us at our factory, and if 10 miles or more distant by mail. Cartridges, \$5 a box. Metallic shells, \$2 a box. G. W. PARREN & SONS, 56 Central Street, Boston, Mass. Say where you saw this.

## THE UNITED STATES CARTRIDGE COMPANY, LOWELL, MASS.

Manufacturers of the

CENTRAL FIRE, SOLID HEAD,

BRASS SHELL, RE-LOADING CARTRIDGE,

Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.

**BOYS' SINGLE-BARREL SHOT-GUNS, \$2.50 at**  
MARSTERS,  
125 Nassau street, and 55 Court street,  
Brooklyn.

**SHELLS LOADED FOR PARTRIDGE, QUAIL, WOODCOCK and SNIPES, \$1 per hundred, at**  
MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

### DINCEE SCRIBNER,

Manufacturer of

salmon and Trout Rods, Salmon and Trout Fish Casting Lines, Landing Nets, Gaffs, etc.

Best Greenheart Rods at \$9, \$11 and \$13 each.  
Waterloo Street, St. Johns, N. B.  
July 12 6m

### The Ludlow Trout Co.

Will this year take from one to two million brook trout eggs (ready for shipment from Nov. 10 to Dec. 20) at lowest prices. Send for price list. Address

B. FREEBURG, SUPERINTENDENT,  
Ang 23 3m Ludlow, McKean County, Pa.

**REVOLVERS, 7 SHOT, \$2.50 at**  
MARSTERS,  
125 Nassau street, New York, and 55 Court street,  
Brooklyn.

**FLEY'S SHELLS, WADS and CAPS at**  
MARSTERS,  
125 Nassau street, New York, and 55 Court street,  
Brooklyn.

# NICHOLS & LEFEVER, MAKERS OF FINE GUNS.

## CATALOGUES SENT ON APPLICATION.

### SYRACUSE, N. Y.

#### The Kennel.

**FOR YOUNG COCKER SPANIEL STOCK FROM the choicest breeds.** Inquire of **M. P. MCKOON,** Franklin, Del. Co., N. Y. dec28-17

**FOR SALE**—Fox hounds, No. 1 stock; very fast and strong-scented; some one year old and some pups. **L. M. WOODEN,** Rochester, N. Y. Aug 9-17

### BALLARD'S FLEA KILLER!

FOR THE **DESTRUCTION OF FLEAS** On Dogs and Other Animals.

An Absolute and Perfect Extirminator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.

**NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.**

**Price 50 Cents per Package.** Will be sent postage paid on receipt of price Proprietors, **LAZELL, MARSH & GARDINER,** 10 GOLD STREET, NEW YORK. 7/19-17

### SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped. **F. O. de LUZE,** 13 South William Street, N. Y., Sole Agent. For sale in cases of 112 lbs. Special terms to dealers.

### CHAMPION LARK IN THE STUD

Orange and white, by Brooks' Phil, out of Raymond's Dido. Perfect specimen of English setter. First prize in N. Y. Bench show for English setters in largest class ever shown in the country, beating Morford's Bruce and Nip and Tuck, who beat both Paris and Leicester. For terms apply to **E. S. WANMACHER,** Hohokus, N. J.

### Fleas! Fleas! Worms! Worms!

**STEADMAN'S FLEA POWDER** for DOGS.

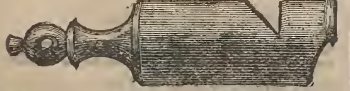
A Bane to Fleas—A Boon to Dogs. This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding peeper box top, which greatly facilitates its use. Simple and efficacious. **Price 60 cents by mail. Postpaid.**

**ARECA NUT FOR WORMS IN DOGS.** A CERTAIN REMEDY.

Put up in boxes containing a dozen powders, with full directions for use. **Price 50 cents per Box by mail.** Both the above are recommended by **ROD AND GUN** and **FOREST AND STREAM.**

**W. HOLBERTON,** 102 NASSAU STREET.

### MARSTERS' IMPROVED



### Horn Dog Whistle.

Cannot be Lost from the Coat. ALWAYS IN THE SAME PLACE WHEN WANTED.

Sample by mail, 50 cents. Trade supplied. **J. F. MARSTERS,** 125 NASSAU ST., N. Y., 55 COURT STREET, BROOKLYN; Oct 11-17

#### The Kennel.

**THE N. Y. Kennel Club** offer for sale their Irish bitch Flirt, 2 1/2 years old, by Saitus' Dash out of Dr. Sirohan's Belle. Very handsome. Has had one litter and will make an excellent brood bitch. Price \$50. Sep 20-17

**FOR SALE**—Red Irish Setter, 2 1/2 years old. Very cautious; shot over all last season; good retriever, land or water. Particulars by letter. Price \$25. Springer spaniel 6 y. 6 months old, partly broken, sit. Cocker spaniel pups, very fine, \$10. **THOS. P. CANTWELL,** Brainerd, Minn. Sep 20-17

### EDINA KENNEL.

**JESSE SHERWOOD,** Proprietor, Edina, Knox County, Mo., breeder and importer of Sporting Dogs Pointers, setters, spaniels, fox and beagle hounds. "Sancho," Imp. Pointer, stud dog; fee, \$35. See English K. C. S. H., No. 1,005. He is a grandson of the celebrated "Hamlet," No. 836. This dog "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874, three here.

**FOR SALE**, when eight weeks old, six puppies out of my blue belton setter-Mell, by Bob Boy. They are black and white. Two of them are black, white and tan, and are almost perfect images of their sire. For particulars, address **L. F. WHITMAN,** 5 City Hall, Detroit, Mich. 1/28-17

### DOGS.

**DOCTOR HENRY GARDNER,** No. 146 West Thirtieth street, New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ag 21

**FOR SALE**—A fine Gordon setter, 14 weeks old, price \$10, or will exchange for a pair of wild geese. Address **T. R. WATSON,** Plymouth, Mass. Oct 13-17

**FOR SALE**—Four splendidly broken setters—two red Irish and three English; color, orange and white. Full pedigree stock. **W. HUMPHREYS,** 31 Fulton street, New York. Oct 15-17

**FINE pups:** Irish setter Jack, winner of three prizes, serving bitches of any setter strain at \$10. **MAX WENZEL,** Hoboken, N. J. Oct 25-17

**WANTED**—Thoroughbred setter bitch, well broken. Address, stating price, etc., **TITUS HAMILTON,** Kelley's Island, O. Oct 25-17

**FOR SALE**—First class retriever on land and water. Splendid ducking dog. Sold for want of use. Address, **JAMES COOK,** Rouse's Point, N. Y. Oct 25-17

**FOR** Irish and native setters, dogs and bitches of all ages, broken and unbroken, address **E. J. ROBBINS,** Wethersfield, Conn. Oct 25

**FOR SALE**—FULL-BLOODED IRISH SETTER pups, over three months old; sire Don, imported from Ireland, December, 1873, by C. H. Turner, Sec. National Kennel; dam, Countess, by Rodman's Dash. Two Gordon setter bitches, four months old, out of the best dog and bitch in this country in the field. One Gordon bitch, 18 months old; price \$35. Full pedigree given with dogs. **H. B. VONDER SMITH,** Lancaster, Pa. Oct 25-17

### Sportsmen's Goods, Etc.



### Steele & Son,

Jewelers & Silversmiths, HARTFORD, CONNECTICUT, Dealers in Diamonds, Silverware, Watches, Jewelry, etc. Importers of French, German and English Fancy Goods. Special attention given to the manufacture of appropriate designs for Shooting, Boating, Racing and other prizes, and our illustrated catalogue, containing three dozen wood cuts of the above and other articles in our line, including the

**GAME LAWS OF CONNECTICUT,** mailed to any address on receipt of 50 cents. Sept 27-17

**HUNTER'S and TRAPPER'S Illustrated Practical Guide**—Gunning and rifle shooting, making and using traps, snares and nets; baits and baits; preserving, stretching, dressing, tanning and dyeing skins and furs, fishing, etc. With fifty engravings, 20 cents. Taxidermist's Manual, 50 cts. Dog Training, 25 cts. Of booksellers or by mail. **JESSE HANEY & CO.,** 119 Nassau St., N. Y. Oct 25-17

#### Hotels and Resorts for Sportsmen.

### Metropolitan Hotel,

WASHINGTON, D. C.

### Carrollton Hotel,

BALTIMORE, Md.

**R. B. Coleman & Co.,** proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.

### THE METROPOLITAN

is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and decked throughout. The cuisine is perfect; the service regular, and charges moderate.

**R. B. COLEMAN & CO.**

**SPORTSMEN TAKE NOTICE**—The Franklin House, Miltonville, Plymouth, Mass. Good gunnery and fishing, seafoal, ducks, partridge, quail, woodcock, peep and plover. Trained dogs for fox, rabbit and bird hunting; boats for seafoaling and fishing. Terms low. **TIMOTHY MANTER,** proprietor. Sep 28-17

### Duck Shooting.

**SHINNECOCK BAY**—THE BEST SHOOTING GROUNDS NEAR NEW YORK CITY.

The Bay View House is the largest and best located house on the bay, being centrally close by the water, and commanding a view of the shooting grounds. Experienced guides, with boats, batteaux, decoys, etc., in attendance. A great amount of duck-ford in the bay, and more ducks this season than for years before. Address **O. WILCOX,** Good Ground P. O., Long Island.

**FOR THE BEST GESE AND BRANT SHOOTING** in Barnegat Bay, go to Kinsey's Ashley House, Barnegat Inlet, New Jersey. Take New Jersey Southern Railroad to Waretown; ferryman always on hand to cross the bay; gunners always at the house. Take no advice, but come directly to the shooting ground. For further information, address **J. W. KINSEY,** Barnegat P. O., New Jersey. Oct 4

**GOOD DUCK SHOOTING** in boat, or on beach, at Noyac, Sag Harbor, terms, \$3 per week. Party has sail boat and stool ducks. Address **OSCAR B. EDWARDS,** Noyac, Sag Harbor, L. I. Oct 25-17

### HALSEY HOUSE,

ATLANTICVILLE, LONG ISLAND,

is near New York City than any house bordering on Shinnecock Bay. Is as near, and has as good shooting grounds, and as experienced sportsmen (with live geese and other decoys, batteaux, etc., always on hand), nearer the station; the largest and the best kept house in the bay. L. I. RR. to Atlanticville Station. Fare, \$2. Stage meets all trains. **W. F. HALSEY,** Owner and Proprietor. Oct 25, 1877. Oct 25

**TO SPORTSMEN**—My house is situated right on and near the best hunting grounds in Sullivan County; partridges very plenty; have good accommodations for sportsmen and their families. City references given. Address **BRADLEY ELDRED,** Sullivan Co., N. Y. Oct 25-17

**SHOT-GUNS AND RIFLES LOANED** at **MARSTERS',** 125 Nassau street, New York, and 55 Court street, Brooklyn.

### For Sale.

**FOR SALE**—I will give two tame pet foxes to the purchaser of my Roper shot-gun. Address **R. W. PHELPS,** Castle Creek, Broome Co., N. Y. Oct 25-17

### Brook Trout Eggs For Sale.

The Proprietors of Trout Grove Fish Ponds are taking great care to breed from their largest and best two and three year old trout. Every package of eggs guaranteed perfect. Fry yearlings and older trout in their season. Send for price list to **J. B. EDDY,** Randolph, Catt. Co., N. Y. Oct 11

**CARTRIDGE BAGS,** \$1.25; GAME BAGS, \$1; **POWDER FLASKS,** 75c; **SHOT POUCHES,** 75c, at **MARSTERS',** 125 Nassau street, New York, and 55 Court street, Brooklyn.

**BLOOMING-GROVE PARK ASSOCIATION.** One share in above association for sale at a very low price. The best Game Preserves in America. Trout, Black Bass and Pickerel fishing. Address **SPORT,** this office. Feb 21-17

**A VERY DESIRABLE ESTATE,** either for a market garden or general sporting purposes, at the South, will be leased to responsible parties for a long or short term of years.

Persons intending to locate in Florida will do well to investigate. Address "SPORTSMAN," this office. Ag 23m

**CITY AND COUNTY PROPERTY** bought, sold and exchanged. **C. S. PECK,** 3 West Twenty-fifth street, New York. Sept 17-17

**25 Fashionable Cards,** no 2 alike, with name 10c post paid. **GEO. I. REED & CO.,** Nassau, N. Y. Oct 14-17

**CURTIS & HARVEY and DUPONT GUN-POWDER** at **MARSTERS',** 125 Nassau street, New York, and 55 Court street, Brooklyn.

#### Sportsmen's Goods.

### HAMMOCKS

FOR LAWNS AND EXCURSIONS

Tents, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seives, etc. Send for Illustrated Circular. **G. WEBSTER PECK,** Manufacturers' Agents, 110 Chambers st., N. Y.

### Folding Pocket Mosquito Bar.

A most ingenious device for camping purposes. It is very light, easy to carry and can be put up or taken down in half a minute. Pronounced by sportsmen to be the most complete thing of the kind ever offered to the public. Price only \$1.50. Lawn covered, expressly for Florida travel, \$3.50. Sent postpaid on receipt of price. Liberal discount to the trade.

**A. A. COWING,** Waking, N. Y. **W. HOLBERTON,** 102 N. Nassau St., N. Y. Ag. nt.

### IMPROVED Gaiter Pantaloon.

**GAITERS and PANTALOONS** combined, of the thick top to the thigh, the inner ply of heavy duck, heavily padded to keep the legs dry. The most perfect shape, and comfortable for riding and walking.

**PRICES:**  
Duck.....\$5  
Fustian.....\$9  
And Corduroy.....\$10

I have now the best corduroy I ever saw. I am getting up cheap Duck Suits, for \$5 and \$7. All my goods are made with the best linen thread, and I do not use rivets to fasten the seams, but good, honest work instead. The trade supplied. Write for circular.

### Geo. C. Henning,

WASHINGTON CITY, Oct 14-17

### RUSHTON'S HUNTING & PLEASURE BOATS AND CANOES.

The **LIGHTEST** sporting boat in the world. Weight, 25 pounds and upward. The smallest size will carry two persons. Cedar sliding oak keel, etc., (do not fold up). CANOES, open or decked, weight 35 pounds to 60 lbs. Send stamp for new illustrated Circular. **J. H. RUSHTON,** Manufacturer, Canton, St. Lawrence County, N. Y.

### Animal Portraiture.

Gentlemen desirous of having their Horses and Dogs painted will be guaranteed an authentic and perfect likeness. Reference to editor of this paper.

**E. SANGUINETTE,** P. O. Box 3,000, N. Y. Oct 15-17

### FRANK SCHLEY'S AMERICAN



### Partridge & Pheasant Shooting.

Describing the Haunts, Habits, and Methods of Hunting and Shooting the American Partridge—Quail, Ruffed Grouse—Pheasants, with directions for handling the gun, hunting the dog, and shooting on the wing. Price, \$2. Liberal discount to the trade. To be had at book stores generally. Address,

**Frank Schley,** Frederick City, Md. Oct 11-17

**NOTICE** is hereby given that Certificate No. 12, for two shares of stock of \$50 each in the Forest and Stream Publishing Company, issued to the undersigned August 2, 1875, have been stolen, and all persons are hereby notified not to negotiate for the same, as application has been made for the release of said certificate. Oct 4-17 **WILSON A. ATKINSON,**

Publications.

LONG-RANGE RIFLE SHOOTING.

A Complete History of the International Long-Range Matches, 1873-1877—Complete Elcho Shield Scores—Rules and Regulations of the N. E. A. Etc., Etc.

FULLY ILLUSTRATED

RIFLE EDITOR OF THE "FOREST AND STREAM AND ROD AND GUN." Price 25 cents.

NEW YORK.

Published by the Forest and Stream Pub. Co. 1877.

Bound Volumes

Forest and Stream.

EIGHTH VOLUME, NOW READY.

First Four Volumes, \$4 each, Others, \$3.50.

A complete set of the FOREST AND STREAM seven volumes, bound handsomely in cloth—a valuable library for the sportsman—can now be obtained on application to this office.

BINDERS.

Get your fine books bound. Art Journal bound uniform to London publishers' style. Picturesque America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done into two or three days if required.

E. WALKER'S SONS, 14 Day street.

"THE OOLOGIST,"

A MONTHLY JOURNAL DEVOTED EXCLUSIVELY TO BIRDS AND BIRDS' EGGS.

This magazine, the favorite of amateur ornithologists, is now in its third volume. It is republished with all that is new or recent in Ornithology and Oology, and publishes important papers on the rarer of our birds and eggs. It is just the periodical for those making collections of birds and eggs for scientific examination, as its columns are constantly furnishing descriptions of the eggs of new and rare species.

TERMS—Forty cents a year, in advance. Specimen copies and prospectuses only on receipt of stamp. Address,

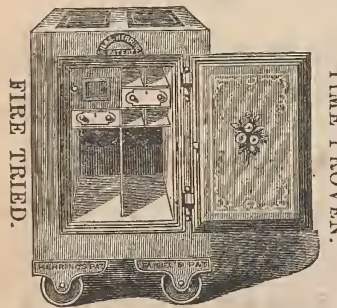
S. L. WILLARD & CO., Oneida st., Utica, N. Y.

BREECH-LOADING IMPLEMENTS, at MARSTER'S, 125 Nassau street, New York, and 55 Court street Brooklyn.

Safes.

HERRINGS SAFES

"The World's Champions."



Received International Exhibition awards: London.....1851 New York.....1853 Paris.....1867 Philadelphia.....1876

Also awards of gold and silver medals.

Massachusetts Charitable Mechanic Association, Boston, 1874; Franklin Institute, Philadelphia, 1874; American Institute, New York, and many others.

HERRING CO.,

SAFE AND LOCK MANUFACTURERS, 251 and 252 Broadway, N. Y.

Fishing Tackle.

COMPETITION IS THE LIFE OF TRADE.

J. B. CROOK & CO.,

FISHING TACKLE, 50 FULTON STREET, NEW YORK

Makes the Immense Reduction.

Greenheart Rods for Trout and Bass Fishing, \$7.50 to \$30. Ash and Lancelwood Rods for Trout and Bass Fishing, \$7 to \$12. Everything else in proportion. Goods sent C. O. D. to all parts of the United States and Canadas.

Gunpowder.

Warren Powder Mills,

MANUFACTURERS OF

BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS—Eureka, Continental, "Border Ride," Snap-Shot, and Warren Sporting Cannon and Musket, U. S. Standard. The above can be had of the dealers, or at wholesale at the office, 27 Doane street, Boston, Mass., and of the agents, JOHN P. LOVELL & SONS, corner of Washington, Cornhill and Braintree street, Boston, Mass., 7/19

THE

HAZARD POWDER CO.

MANUFACTURERS OF

GUNPOWDER.

Hazard's "Electric Powder." Nos. 1 (fine) to 6 (coarse). Une surpassed in point of strength and cleanliness. Packed in square canisters of 1 lb. only.

Hazard's "American Sporting." Nos. 1 (fine) to 3 (coarse). In 1 lb. canisters and 6 1/2 lb. kegs. A fine grain, quick and clean, for upland prairie shooting. Well adapted to shot-guns.

Hazard's "Duck Shooting." Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzle or breech-loaders.

Hazard's "Kentucky Rifle." FFFG, FFG, and "Sea Shooting" FG, in kegs of 25, 12 1/2 and 6 1/2 lbs, and cans of 5 lbs. FFFG is also packed in 1 and 1/2 lb. canisters. Burns strong and moist. The FFFG and FFG are favorite brands for ordinary sporting, and the "Sea Shooting" FG is the standard rifle powder of the country.

Superior Mining and Blasting Powder. GOVERNMENT CANNON & MUSKET POWDER; ALSO, SPECIAL GRADES FOR EXPORT, OF ANY REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER.

The above can be had of dealers, or of the Company's Agents in every prominent city, or wholesale at our office, 88 WALL STREET, NEW YORK.

THE

New Dittmar Powder.

THE CHAMPION POWDER OF THE WORLD. For all off-hand shooting at short and long ranges. Unsurpassed for Cleanliness. Pleasant to shoot on account of little recoil and report. Desirable for hunting on account of little or no smoke. Unexcelled for rapid firing, as it does not foul and heat up the barrel as black powder. Great accuracy, penetration and good pattern. Safer than black powder. Address

CARL DITTMAR, NEPONSET, MASS.

ORIENTAL POWDER MILLS MANUFACTURERS OF ALL KINDS OF GUNPOWDER

Office—13 BROAD STREET; BOSTON.

BRANDS—DIAMOND GRAIN. FALCON DUCKING. WILD FOWL SHOOTING. WESTERN SPORTING. (Oriental Rifle.)

The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES.

J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. Cobb & Wheeler, Agents, 2 State St., Chicago, Ill. C. J. Chapin, Agent, 215 Locust St., St. Louis, Mo. Agencies in the principal cities in the United States.

GUNPOWDER

DEAD SHOT,

NE PLUS ULTRA,

TELEGRAPH,

DUCK SHOOTING.

The above celebrated Brands are manufactured by the

AMERICAN POWDER CO.

233 State Street, Boston.

GENERAL WESTERN AGENTS:

E. B. RAMBO, Chicago, Ill.

F. G. GODDARD, St. Louis, Mo.

M. BARE & Co., Cincinnati, O. Oct 4 11

N.Y. Newspaper Mailing Agency

With the latest improved Newspaper Folding and Mating Machines, No. 13 Spruce street. JAMES BRADY, Manager and Proprietor.

Sportsmen's Goods.

BOSTON SHOOTING SUIT.

Manufactured only by

G. W. SIMMONS & SON.

BOSTON.

Each article—coat, trousers, vest and hat—have the name and manufacturer's address stamped upon it, and no suit is genuine without it bears this imprint.

The suit can be sent, securely packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit.

We make no discount except to the trade. We make but one quality, and that is the VERY BEST. The price of the suit complete is \$13.

The suit consists of coat, trousers, vest, and choice of either cap with havelock, or hat. The material is of the best quality of duck, waterproofed by a patent process. The color is that known as "dead grass shade."

The seams and pocket corners are riveted, and nothing is neglected to make the whole suit complete in every way.

OUR PATENT DECOYS

have entirely superseded the old-fashioned cumbersome, wooden decoys. The birds are hollow, and six of them occupy about the space of one wooden decoy. The Duck Decoys of all kinds are \$12 per dozen; geese, \$3 each; yellow leg, \$4.25 per dozen; black breast plover, \$3.75 per dozen; red breast plover, \$3.75 per dozen; golden plover, \$3.75 per dozen; turnstone, chicken plover, etc., \$3.75 per dozen; sandpipers, \$3.50 per dozen. We are now making standing geese for field shooting.

THE HUNTER'S TENT

is made of tan-colored duck; light, easily transported. Size, 7 ft. by 8 ft. Price, \$10 complete, made on the umbrella principle, folding into a neat roll 3 feet long.

In the judges' report at Philadelphia they were commended for excellence in every part. Very novel and practicable; adapted to all out-of-door purposes where lawn, beach, hunters and camp tents are used; quick folding; all sides strongly fortified; enables them to stand against wind and rain. Rev. F. B. Savage, of Albany, N. Y., who camps out in Florida in winter, and the Adirondacks in summer, writes this about the tents:

ALBANY, July 31, 1877.

SRS—I have just returned from a three-weeks' camping expedition in the Adirondack, and have had the three tents bought of you put to the severest tests of exposure both as to wind and storm, and I do most unhesitatingly say they are the most complete thing of the kind I ever used.

1st. They are easily put up or taken down. 2d. They are perfectly waterproof. 3d. They are a good height, and all the room I available.

Our party asked for no better. They were admired by all who saw them, and one party insisted on buying one of ours that was to spare. Rev. Dr. Duryc, of Brooklyn, and the Rev. Dr. Irwin, of Troy, both indorse what I say about your tent. With kind regards, yours truly, F. B. SAVAGE.

Tan-Colored Leather Pliable Waterproof Suits.

In Shooting Coats, Jackets, Breeches, Vests and Hats at following prices: Coats, \$22; Breeches, \$15; Jackets, \$18; Vests, \$12. These form the most elegant shooting equipment known. They are indestructible.

A recent notice in the FOREST AND STREAM from a correspondent, says:

Whenever a sportsman, or even one who does not claim the distinction, finds a really good and useful article, it is no more than fair that he should let others have the benefit of his knowledge. For this reason we would call attention to the Tan-colored Leather Shooting or Fishing Suits, made by G. W. SIMMONS & SON, of Boston, Mass., the manufacturers of the famous "Boston Shooting Suit."

I saw these goods advertised in your paper, and wrote to the parties for samples. I found the material as soft and pliable as a piece of kid. I tested it by soaking in water twelve hours, and found it as nearly waterproof as one could desire, and after drying was happily surprised to find it had not stiffened in the least. I have since then received a full suit—coat, vest and breeches—ordered by letter from measure taken by myself.

The goods are splendidly made, well lined with flannel; in fact I do not see how they can be improved.

My friends are unanimous in their verdict that G. W. Simmons & Son's leather goods cannot be excelled in quality or beaten in price.

For every kind of sportsman's goods address G. W. SIMMONS & SON, Oak Hall, Boston, Mass.

Sportsmen's Goods.

Sportsmen

WILL FIND A FULL SUPPLY OF TENTS, CAMP STOVES, AMMUNITION, FISHING TACKLE, HUNTING SUITS, Etc., Etc.

AT THE

SPORTSMEN'S EMPORIUM.

SHELLS LOADED WITH GREAT CARE.

W. HOLBERTON,

102 Nassau Street, corner of Ann. Second floor. Oct 11 11

C. C. & B. ZETTLER, GUNSMITHS AND RIFLE GALLERY, 207 Bowery, New York.

Gale's Patent Tents,

Adapted to all purposes where Lawn, Beach, Hunters and Camp Tents are used; are eight feet high, seven feet square at bottom, will lodge four persons; can be set up or taken down and packed in five minutes, making a bundle four feet long, of twenty-five pounds weight. The pole in two parts, is joined together by a brass tube. They are wonderfully light, and yet very strong, and are the handiest and cheapest tents extant. Samples of goods and price list sent free, and the tent sent on receipt of price, or C. O. D. Prices from \$10 to \$15.

GALE & CO., Boston, Mass.



GOOD'S OIL TANNED MOCCASINS.

The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine article. Send for illustrated circular. MARTIN S. HUTCHINGS, P. O. Box 308, Dover, N. H. (Successor to Frank Good.)

W. HOLBERTON, 102 Nassau St., N. Y., Agent.

THE '76 SHOOTING COAT.

(PATENTED) The largest variety of Shooting and Sporting Garments, in the World.

Send for Illustrated Catalogue.

GEORGE C. HENNING, Washington City.

Feb 22 11.

The Sportsman's Note Book.

Containing Diary, Blank Scores for Rifle, Glass Ball and Pigeon Shooting, Game-cards, hints and receipts Game Laws for the principal States, etc. Bogardus & Holberton's Rules for Glass Ball Shooting. By W. HOLBERTON, 102 Nassau street, N. Y. Sent post paid on receipt of price, 50 cents.

LIBERAL DISCOUNT TO THE TRADE. Oct 11 11

H. L. LEONARD, BANGOR, MAINE,

Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty

Great reduction in prices. Trout rods, full mounted, \$30. Canaries \$50; other rods in proportion. Every Rod bearing my name is six strands from but to extreme tip, and mounted with my "patent waterproof formula," and warranted against imperfections in material and workmanship. Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancelwood. MADE TO ORDER.

I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods. Also manufacturer of Patent Reels for Salmon and Trout fishing. The lightest, strongest, and handsomest Reels ever made. Full line of FISHING TACKLE always on hand. Send for circular and price list.

167

B. GREENWOOD,

Manufacturer of Aquaria Greenhouses and Aquarium Cement, and dealer in Fish Food, Gold Fish, Water Plants, Fish Globes, and aquatic stock of all descriptions. Canaries, Cages, Rugs, Bird Houses, Bird Shells, etc., wholesale and retail.

Nos. 11 1/2 to 13 COLLEGE PLACE, Near Murray St. New York, N. Y.

EVERY DESCRIPTION OF Sporting Goods.

GUNS, RIFLES, PISTOLS & FISHING TACKLE, HUNTING AND FISHING SUITS, CAMPING OUTFITS.

Bogardus' Glass Ball Traps, \$10.00; Glass Balls, per hundred, \$2.40.

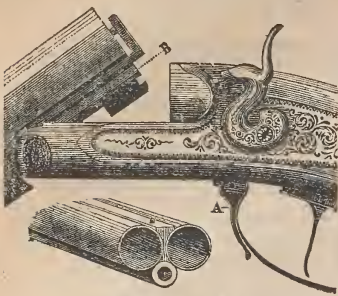
Send \$2.50 for our "Wasp" revolver, 23 cal. 7 shot nickel-plate, warranted. Satisfaction guaranteed. Send Stamp for Catalogue.

WASHBURN & CO.,

P. O. box 622. 66 JOHN STREET, N. Y. 1614



Guns, Rifles, Etc.



Breech-Loading Guns.

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

PRICES. Three barrel, \$75 to \$250. Double barrel shot guns. Damascus barrel, \$50 to \$200. Twist barrel, \$85. SEND FOR NEW CIRCULAR. W. H. BAKER & CO., Syracuse, N. Y.

Sportsman's Depot.

First premium at World's Fair at New York and Centennial Exhibition.



JOHN KRIDER,

N. E. Cor. Second and Walnut Sts., Phila. GUNS, RIFLES, PISTOLS, Fishing Tackle, Rods, Reels, Lines, Hooks, Flies, Leaders, Snoods, Artificial Bait, Fly Books, Etc., Etc. Salmon, Bass and Trout Flies Made to Order. "Kriders" Celebrated Center Enamel Split and Gined Bamboo Rods. Birds' Eggs and Birds' Skins in Great Varieties—Taxidermy in all its branches. Spratt's Patent Dog Biscuits. Repairing of all kinds.

E. THOMAS, JR., GUNS, PISTOLS, SPORTING GOODS, 174 South Clark Street, Chicago, Ill.



THE NEW AMERICAN Breech-Loading Shot Gun

For close hard shooting excels all others. Price \$17. Send for circular. Duck guns, extra heavy, a specialty. HYDE, SHATTUCK & CO., Mrs., Hatfield, Mass. Sept 6m.

COMPLETE OUTFITS FOR CAMPING, SHOOTING, AND FISHING.

Fine fishing and shooting tackle, camp stoves, leather, rubber and canvas goods and suits for sportsmen. Tents, portable boats, moccasins, etc. AGENTS FOR THE FOX GUNS. The best and strongest American guns yet made. Sole agent for the celebrated McBride flies, Holberton's fly rods, black bass and trout flies, and full length fly books; Purly's glass ball traps and ball's-eye balls, etc. Send ten cents for illustrated catalogue, with rates for glass ball shooting, and hints on camping, shooting and fly-fishing for trout and black bass.

W. HOLBERTON, P. O. Box 5, 109. 102 Nassau street, N. Y. Aug 23 tf.

Amusements, Etc.

Zoological Garden.

FAIRMOUNT PARK, PHILADELPHIA. Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 17

THE GREAT NEW YORK AQUARIUM, Broadway and 85th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones, Wonderful Horned Cow Fishes and Ascidians, Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments. Coney Island Aquarium now open for the summer.

W. & C. SCOTT & SONS.



TRIPLEX.

marked the PREMIER QUALITY [Extract from FOREST AND STREAM, New York, December 26, 1876, Contributed by one of the Judges of Awards of Guns at the Centennial:]

"This action (The Triplex Lever Grip) combines in the highest degree strength and simplicity, and must rapidly secure the favor of all who test its merits.

COMPENSATING LUMP. Strongly recommended. It is invaluable, and should be ordered on every gun. Costs about \$10 extra. Choike-bore, medium or full. Our guns to be had of the principal dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.

First Prize Medal and Diploma, awarded at the Centennial Exhibition, for excellence of workmanship and material in their Premier Quality and medium grades. Their New Patent-Triplex Lever Grip Action and Compensating Lump. The attention of sportsmen is requested to the above new action. Its superior strength and solidity impart greatly improved shooting powers. Hard hitting being the desideratum required, is obtained by this powerful gun. Prices of the New Triplex Lever Grip, \$115, \$225 to \$400. Marked the Triplex 10-bore extra. Our highest grade is as usual

DON'T PASS THIS BY.

STODDARD'S CARTRIDGE-LOADING IMPLEMENT, COMBINING ALL OTHER TOOLS AND FOR ALL SHELLS.

Length, 4 1/2 inches; weight, 10 ounces, and nickel-plated. Price, \$6. Recommended by FOREST AND STREAM AND ROD AND GUN, Boone, Recapper, Will Wildwood, Ira A. Payne, and others. Liberal discount to the trade. Send postal order to

C. J. STODDARD & CO., Lock box 192, Washington, D. C.

TO SPORTSMEN IN GENERAL!

Headquarters Bohemian Glass Works, 214 PEARL STREET, NEW YORK.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the service of that well-known Sportsman,

IRA A. PAINE,

to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell.

In offering this new ball to the public it will require very little introduction, as in no instance where it has been exhibited has it failed to take the place of all others, and is to-day the only perfect substitute for a bird in use.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300 or boxes of 500. Send for price list. We intend offering special inducements to the trade.

Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

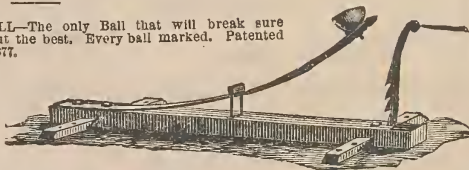
SPORTSMEN'S CLUBS AND AMATEURS.

THE PATENT ROUGH BALL—The only Ball that will break sure when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 13, 1877.

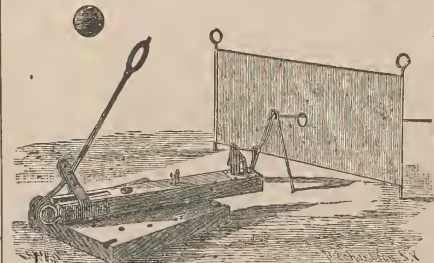
Geo. E. Hart & Co.,

NEWARK, N. J.

TRADE SUPPLIED.



HUBER & MERWIN'S CHAMPION BALL TRAP.



This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP, for durability and perfection of its operation, superior to their all, and take pleasure in recommending the "Champion" to sporting clubs and my friends. (Signed) Aug 17

We call the attention of the fraternity to the above trap, claiming to be the *nie plus ultra*. It combines compactness with durability, and is arranged, by a swivel on the bed-plate, to throw a ball in any direction or at any elevation unknown to the shooter, a screen preventing his seeing the direction in which the trap is set.

The spring, as the cut will show, is made of a steel rod or wire, bent spirally at the point of attachment, thus receiving the concussion its entire length, and preventing breakage.

PRICE \$10.

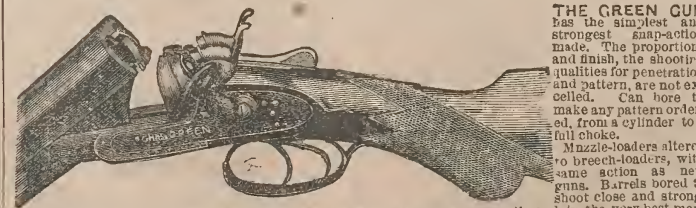
FOR SALE BY

BARTON & CO., Sole Agents,

37 BROADWAY, NEW YORK.

Has the simplest and strongest snap-action made. The proportions and finish, the shooting qualities for penetration and pattern, are not excelled. Can bore to make any pattern ordered, from a cylinder to a full choke. Muzzle-loaders altered to breech-loaders, with same action as new guns. Barrels bored to shoot close and strong.

Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Aug 30 tf



Price \$45. Re-boring and repairing breech-loading shot-guns done promptly and in the very best manner. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Aug 30 tf

C. M. BRENNAN, OLD KENTUCKY BOURBON & MONONGAHELA, 40 South Clark Street, Chicago.

UNION SQUARE HOTEL, UNION SQUARE, Corner 15th Street, New York. A. J. DAM & SONS, Proprietors.

Sportsmen's Goods.

W. H. HOLABIRD, Manufacturer of

Specialties in Clothing FOR SPORTSMEN, Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent by mail, post-paid, \$6.

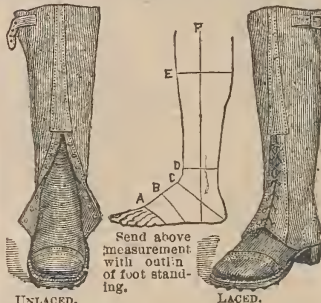
Holabird's New Game Bag; weighs 12 ounces. The most convenient and coolest garment ever offered to Sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2.

Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style. Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods. Jy 19 17

THOMSON'S New Style Hunting Boots.



Has all the benefits of Top Boots, and ease and comfort of Lace Boots. Waterproof to the top. Send address for descriptive card.

THOMSON & SON, P. O. Box 1,016, 801 Broadway, N. Y.

Founded July 4, 1803.



Thos. W. Sparks,

Shot & Bar Lead MANUFACTURER.

Office 121 Walnut Street, Philadelphia.

Magic Lanterns and Stereoscopes.

E. & H. T. ANTHONY & CO., 591 Broadway, N. Y., opposite Metropolitan. Stereoscopes and views; Graphoscopes, Chromos and Frames; Albums, Photographs of Celebrities, Photographic Transparencies, Convex Glass, Photographic Materials. Awarded First Premium at Vienna and Philadelphia. Dec 25

Sportsmen's Headquarters FOR WINES, LIQUORS AND CIGARS.

Outfits for yachting, The camp or field specialty. Olives by the case, gallon or bottle.

THOS. LYNCH, IMPORTER,

99 NASSAU ST., Bennett Building, New York. Sept 17 tf

Painting.

PAINTING.

EVERY ONE THEIR OWN PAINTER.

50 Per Cent. Saved.

We are manufacturing a very fine Pure Ready-mixed Paint, mixed in such a manner that any ordinary stable or farm hand can make as good a job painting as a painter can with paint mixed in the old way. This is because our paint does not set quick, and thus show marks of the brush. We sell it lower than materials can be bought in the ordinary way, and pay freight in certain sized orders.

Any gentleman wishing to paint up his buildings at small expense had better write, and have sent free our book.

Address 260 Front street, INGERSOLL PAINT WORKS. Jct 16

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year. {  
Ten Cents a Copy.

NEW YORK, THURSDAY, NOVEMBER 1, 1877.

{ Volume 9.—No. 13.  
No. 111 Fulton St., N. Y.

For Forest and Stream and Rod and Gun.  
AUTUMN.

BY T. S. VAN DYKE.

SING not to me of blushing Spring,  
With birds, and lambs, and bees, and flowers;  
Nor of the charms that pleasures bring  
O'er rosy Summer's dragging hours.

Give me those calm and halcyon days,  
That mourn around dead Nature's bier,  
When Recollection softly plays  
O'er sports of many a banished year.

Those sweet and peaceful smoky days,  
That seem as if life's toils were done;  
When struggles down with softened rays,  
Through dreamy haze, the bloody sun.

Or e'en when dark the sky doth scowl,  
And Winter's scouts o'errun the land,  
And Boreas, with blustering howl,  
Springs to the elements' command.

Give me the wood-bound stubble field,  
Where oft I've found the little quail,  
Where oft the double shot hath pealed  
Across his airy, buzzing trail.

Give me the saddened, lattered wood,  
With crimson vine and tangled briar,  
Where oft, with throbbing heart, I've stood  
While grouse or woodcock shunned my fire.

Give me the brown and bristly dingle,  
The marsh, the prairie, or the plain,  
Where oft I've felt my being tingle  
With mighty expectation's strain.

Give me the little rush-fringed lake,  
Where thick the stately wild rice sprungs,  
Where oft the very air doth shake  
Beneath ten thousand rushing wings.

Give me the mountain's shaggy side,  
In rich and varied colors bright,  
Where antlered beauty loves to hide,  
And disappear with crashing flight.

With gems like these is Autumn graced;  
With gold is fringed its darkest cloud;  
Oases cheer its desert waste;  
And diamonds sparkle on its shroud.

For Forest and Stream.

### A Summer on the Lower St. Lawrence.

AFTER a pleasant but commonplace journey from Boston to St. Johns, and thence by the new inter-colonial railroad toward the Bay of Des Chaleurs, we find ourselves located for a few days at Dan Frazer's noted resort for salmon fishers, on the beautiful dark-green Metapedia. The hotel, which hardly deserves the name of such in view of its indifferent board and accommodations, is, at the time of my arrival, well filled with angling tourists from all parts of the Dominion and the United States, including even the outlying islands of the Bermudas, which had sent a creditable deputation from its resident garrisoned officers. I am free to confess to a tinge of shame and mortification at my ignorance when hearing here discussed all around me by everybody the minute details and merits pertaining to the craft of an angler who, disclaiming the sportive sea trout, reserves the salmon for his special gratification. The Silver Doctor, the Fairy, Jock Scott and other appellations are bandied about here in the same positive manner as different species of game birds, only with this difference, that in the latter we deal with a mass of animated feathers of typical indivisibility, while in the former we merely allude to bits and tinsels of gaudy colored feathers and silk, which change about as often in pattern as the fancy of these makers dictates.

Salmon fishing is a privileged pastime, requiring a round outlay of means, an exceptional outfit and ready access to the rather circumscribed geographical area in which this fish occurs. But few of the many devotees to field and aquatic sports can really afford to indulge in this specialty, since the gear needed for it is expensive and not serviceable in the capture of any other fish. Exclusively constructive rods, reels, lines and flies, if complete, could hardly be purchased for less than a hundred and fifty dollars, which would be but the

smaller half of the bill, since the lease of good streams ranges as high as a thousand dollars for a short summer season. Government permits at established rates of one dollar per day can, however, be readily obtained at any one stream owned by the crown; but success in these is apt to be poor, as their privileges are open to all comers. Such is the case at the mouth of the Restigouche and the Metapedia, two of the most notable salmon bearing rivers emptying their floods into the wide embouchure of the majestic St. Lawrence River. The fishing on them is rather fair at the beginning of the season when salmon commence their ascent, and continues so until about beginning of July, when the lessened amount of rainfalls causes the gradual shrinking and consequent heating of their waters, which, to suit the fish, must have a certain degree of coolness. He then forsakes all shallow rapids and resorts to deep pools, where, when calms and weather favor, he may be seen lying motionless in solid banks, resembling rather a dark vein of the rocky river bed, than the even, living phalanx, which betrays its nature by an occasional splash or a slight movement of the tails or part of the ever restless members. At this time they grow, generally speaking, indifferent to the tempting, trallug, gaudy tibbits of feathers, so cunningly hiding the barbed dangers lurking in their midst, from the angler's well tempered hook. A few may take a notion from time to time to rise up from the luxurious coolness of their deep environment to take, as it were, a cursory glance at affairs above, or of satisfying merely their curiosity, after which they lazily descend, to the great mortification of the angler, who has spent many weary hours in the painstaking, patient pastime of casting his fly to the utmost limits of the dark pool, which bears his birch canoe with its usual complement of two expert boatmen. It is evident that the desire to replenish his empty stomach is not the ruling motive of this sportive habit of the fish, since he does thrive literally upon nothing at all from the time that it ascends the streams for spawning purposes until his return back to the sea, which happens between the months of May and September.

At the end of his summer journey, he resumes once more his predatory habits, and prefers even the worm of the rustic pothunter to the sportsman's fly, which offers no promising nourishment in his emaciated condition. He is at that time too poor to serve as an object of legitimate sport. There are several excellent pools close to the Metapedia tavern. These are formed by the excavating tendency of rushing waters, when checked in their onward flow and turned into a rotating movement. The angler often finds himself in luck at these chosen spots, and may take, within a few hours, a half a dozen or more of his silvery prey, averaging on these streams the notable weight of fourteen pounds. His expenses, however, are commensurate with his gratification, and exceed vastly those of the man of gun, since board and the hiring of help cannot be had for less than seven dollars per day, all extra luxuries excluded. Neither is salmon fishing, royal as the fish may be, the par excellence royal sport, the exclusive privilege and reward of ripe experience, and the well earned knowledge of the habits of the fish. The pastime, in fact, is becoming fast a favorite recreation of the merest tyros, ladies included, who never even aspired to a fair share of professional honors enjoyed by the sterner sex. I am assured that Lady Dufferin manages to capture in the most approved style as many salmon as most of the successful and experienced anglers, and that these honors are fully shared by some of her lady friends.

The sport is now reduced, by means of suitable canoes and the help of efficient boatmen, to an ordinary enjoyment. It is these, not the angler himself, who select the best localities where a successful cast may be made. Neither is there any necessity of enduring fatigue and toil, wading of the streams, or leaping dexterously from rock to rock, as in the case of brook trout fishing, where foaming, seething waters, yawning between huge slippery boulders impart the additional spicy flavor of possible mishaps or even danger to life. Nothing of the sort is apt to happen here; the roomy, dry and clean canoe, manned by two trustworthy, experienced men, and moored within hail of the tavern, awaits your pleasure. The boatman, who is mostly of more or less alloyed Indian extraction, does take care of everything, sees to all of the gear and even to the safe landing of the fish itself after his exhausting struggle against the wiry strength of the plaited line, which holds an inexorable strain upon him from the time that he took a fatal notion to the feather at its end. Thus it happens

often that any beginner chancing to be on the right spot may have better success than the most expert angler, no matter how much the latter may boast of his experience and technical skill.

Nearly all of the streams falling into the broad basin of the lower St. Lawrence abound in salmon. Their number has of late somewhat increased, as the laws regulating their capture are rigidly enforced. Their size, however, varies in different waters. The Restigouche and the Caspédia boast of the largest fish, while the Nepisiguit, Metapedia and Natashquan rank below in average. The government controls the lease, and appoints wardens to all streams which are not rented to private parties. Their duties consist in warning off or arresting all intruders. A uniform tax of one dollar per day entitles all comers to the privilege of fishing for salmon. Accurately collected statistics show an annual amount of fish taken in each stream, along with their average, and would afford the most condensed and truthful information concerning the points, indispensable to all whose time and means permit to indulge in the sport. Along with these valuable hints we find here and there cropping out, curious relics of ill-founded prejudices, as evidenced in printed suggestions toward a more efficient protection of salmon and trout against their enemies. The kingfisher is singled out as one of the most conspicuous, and a premium upon each head is recommended as an efficient check of the supposed havoc which the young fry of salmon suffers by that bird.

It is true that the kingfisher is a common sight along all of the streams, and also that he follows strictly the avocation denoted by his name. But the daily amount of fish consumed by each bird cannot be of any weight, when considering the problem of effective protection. It would be well, also, to inquire into the particular species which serve the kingfisher as his usual food, and the inquiry could only be satisfactorily answered by accurate examination of the remains found in the stomachs of a dozen or more of these birds. It is more than probable that he preys less upon the young fry of salmon and trout than upon suckers and other sluggish, stationary fish which he could capture more easily than the other, which would be more likely to offer difficulties by reason of their natural restlessness, great swiftness and their habit of concealing themselves under rocks or the whirling eddies of deep pools near cascades. The conspicuousness and the name of of the bird are probably responsible for assigning to him the greatest share in the annual destruction of fish, and the mistake in overlooking far more efficient and dangerous enemies. A kingfisher probably weighs from four to five ounces, and raises a family of from five to seven young, for which he provides. Although conspicuous, they are far from being numerous, since each bird controls a separate fishing ground of his own, from which he keeps all other intruders. The great noise and chatting resulting from frequent encounters with them have probably led many superficial observers to the error of making exaggerated estimates of their numbers, whereas five pairs a mile would probably be an unusual surplus on any stream.

It would seem that if birds are chiefly injurious to the trout and salmon, that the kingfisher cannot be held alone responsible for the great annual destruction inflicted upon them. They encounter far more dangerous enemies in the sheldrake and cormorant. We meet the former frequently in the summer along the streams and inland lakes, upon which they raise their numerous, voracious brood of young. It would be difficult to think outside of the Colony of a bird more admirably adapted for the capture of the finny tribe, with their slimy, slippery bodies, than the family of the Mergansers, of which the so-called sheldrake forms a common species. They are expert swimmers, being slim in body and of broadly webbed toes, with plenty of power and little resistance to overcome. The wonderful plasticity of their throat enables them to swallow any fish, even crosswise, though the same should be provided with unyielding dorsal fins, as in the case of the rock bass. It is questionable if outside of the above named groups and the old wife (*Harelda glacialis*) there is any other bird capable of remaining so long under water in their diving excursions. Their digestive powers are enormous, and it would not be hazardous an exaggeration, but what they are capable of capturing and absorbing daily half of their own weight, which cannot be less than two pounds or above, in full grown birds. Counting in of their brood of from seven to eleven, which require the same amount of food in proportion to their size, we can form an estimate of the damage inflicted by these birds

upon fish of all kinds, including those which escape the occasional dart of the kingfisher.

A glance, too, at the means of the latter to capture its prey, as compared with those of the voracious merganser, will afford additional point to the argument. In the one we view a smooth spear-shaped like beak, necessitating, to be serviceable, extremely favorable combinations for pinning and securing its prey, while the saw-like, relentless grasp of the narrow beak of the other could make incalculable, never-failing havoc.

I have singled out these birds, as their geographical distribution is very general, being resident breeders of all streams of eastern North America, from the shores of Labrador to the wooded retreats of the mountains of Pennsylvania. But the visitor to the Gulf of St. Lawrence cannot fail to notice, also, here and there a less active but even more voracious enemy of the salmon in the cormorant, the proverbial symbolism of all aquatic voraciousness. There is a curiously-shaped rock near the eastern extremity of the Province of Quebec, called, from its appearance, the rock of Perce. The little town near it is named likewise, and is a convenient station of the Gulf Port steamers running regularly between Quebec and Halifax. Romantic Gaspé, with its beautiful fiord-like bay, is but fifteen miles north of it, and thus adds to the desire of any tourist to the Gulf of the St. Lawrence to linger a few days where so many attractions compensate for this judicious outlay of time. Perce Rock is but a few hundred yards from the main land, and stands out like a conspicuous landmark in bold relief to the straight outlines of the main shore.

It is formed of almost perpendicularly tilted schists of grayish slates, and has a flat square top, which may be owing to the vast denudation which has affected this whole region on the grandest possible scale. This top has been for ages the chosen breeding ground of the great common cormorant and other large colonies of sea gulls, which seem to live harmoniously with their voracious neighbors. The rock rises perpendicularly, is inaccessible by nature and additionally so by special local laws forbidding its ascent, and enacted to prevent possible catastrophes or the disturbing of the breeding grounds of these birds. They must be both an instructive and charming sight to the lessees of the great salmon rivers Dartmouth, York and St. John, which empty their floods fifteen miles from this spot into the basin of Gaspé. There seems to be organized a regular system of fish transportation between the hungry broods on this rock and the upper course of these rivers, as even human ingenuity could not desire better. The visitor at Gaspé may see every morning as unfailing as time, cormorant after cormorant flying up stream, to return at intervals loaded down to the utmost with fish for their hungry young, after having, of course, enjoyed themselves to the utmost the liberal banquet spread before them by the myriads of quickly growing salmon, which abounds here in spite of these immense inroads upon its successful increase. If in turn I mentally calculate upon the relative amount of fish needed to sustain a cormorant and his full-grown family, if I think of the clouds of birds I saw rising up from the rock, when the captain of the steamer fires a gun to afford his passengers the luxury of this interesting sight, it seems to me that a premium upon the head of the cormorant may prove a better protection to the salmon fry than suggestions toward the extirpation of the kingfisher, our lively, chattering, enlivening denizen of the monotonous solitude of mountain streams. Perhaps Mr. Fred, Curtis of Boston, the widely renowned Walton of all notable salmon streams of the St. Lawrence, would endorse a trial of altered warfare, when reflecting upon the somewhat lessened amount of his royal private fishing grounds, the beautiful Dartmouth. J.

#### For Forest and Stream and Rod and Gun. REMINISCENCES OF THE TURF.

His ears up pricked, his braided standing mane  
Upon his compassed crest now stands on end;  
His nostrils drink the air, and forth again  
As from a furnace vapors doth he send.  
His eye, which scornfully glistens like fire,  
Shows his hot courage and his high desire.

Venus and Adonis.

THE most splendid of animals is not only great in his usefulness, but his nature and the link of love between him and his master have created the Centaur as an emblem of conquest, and established the typical man on horseback to represent advancement and civilization. There is poetry in him which inspires bards, while his beauty, is the study of the painter and the sculptor. From his proud crest to his delicate pastern he is a succession of interminable lines of beauty; the curve and the reverse curve repeated and varied until the critical eye is lost in wonder and admiration. And what a noble spirit animates the splendid creature. One of the gorgeous military champions of the age of chivalry in his enthusiastic love for his horse exclaims: "Ca ha! He bounds from the earth as if his entrails were air, le cheval volant, the Pegasus qui a les narines de feu. I soar, I am a hawk; he trots the air. The earth sings when he touches it. The basest horn of his hoof is more musical than the pipe of Hermes."

No wonder that aristocracy has made the horn a device in the blazonry of nobility, and appointed the gold spur as the badge of the highest knighthood; and that gambling with so noble a creature in the ancient chariot races and on the modern turf makes the "Olympic dust" a phrase of classic lore.

Those who love to trace the blood of the illustrious Diomed in America will find his noblest descendants foaled on the plains and hills that surround the once famous Rebel capital Timoleon, Florizel, Boston, Peacemaker, Revenue, Red Eye, and many another famous four-mile nag, raised in that secun-

ingly desolate land of broomsedge and huckleberry, have left an undying fame in the history of the Metairie Course, the Charleston, the Broad Rock, the Fairfield and others.

The great racer, Wm. R. Johnson, was called "the Napoleon of the Turf" in the days when a road wagon or a sulky were unknown; when gentlemen went courting in a slow, stately tandem, with a negro groom following on horseback who carried the high portmanteau en croupe. I have before me a most amusing old colored print of the famous race for Lafayette's carriage, at Tree Hill, near Richmond, in 1825. It was a beautiful barouche, in which the illustrious Frenchman traveled when in America the last time, when he went along the rich valley of the James River, or rather "Jeems," as it is called in classic Virginia, and was escorted from one mansion to the next by a score of the best gentlemen of the Old Dominion until he arrived at Monticello. As Col. Tom Bolling, who was one of the gentlemen who had the distinguished honor to constitute the escort of outriders, has told me of it, the scene which was there enacted must have been impressive and almost solemn.

The mansion stands on the summit of the last outpost of the Blue Ridge Mountains, which bound the western horizon with lines of blue, whose graceful curves impart an idea of majestic calmness, while to the eastward the rich lowlands stretch away as smooth as the ocean beyond. The dreamy stillness of the autumn held all nature in a trance, and the light floating clouds stood still in the sky, so that when the gay cavalcade reached the height and felt the impressive spirit of the scene, the laughter which had resounded along the route all the morning suddenly ceased, and even the horses relaxed their speed into a slow and stately gait. These two celebrated men, the statesman and the warrior, had watched the birth of the young republic—its infancy swathed in battle-flags, and its youth heralded with the world's wonder and acclaim; and now they greeted each other with a mutual congratulation which was too full and great to find utterance in words. The gentlemen stood uncovered; the ladies, the servants, the very household dogs bent their eyes on the two men, as Mr. Jefferson, with the stately dignity that belonged to him, came down from the porch. "What will he say?" thought every spell-bound spectator. The fashion of France prescribed an embrace and a kiss for such an occasion, and the illustrious American, with the refined delicacy of a true gentleman, chose that ceremony as a compliment to the ally and an endearment to the friend; but the two could only regard each other with a look which spoke unutterable things that only they could understand. And it was only when the first toast was given at dinner, and the brimming glass drained that any of that historic party could speak clearly or see clearly, so affecting had been this meeting.

I did not mean, gentlest of readers, to go off so far in Lafayette's carriage, but to tell a very short story about the race. The gentlemen who figure in that old colored print are attired in the long blue frock-coats that reach nearly to the ankle, with voluminous neckties and aspiring collars that threaten the brims of the peaked beavers, the chins all smooth and the boots very pump-like. The older men wear the blue swallow-tail, buff or gray breeches, and Wellington boots. Occasionally among both classes you may see that marvel of a fop's make up at that period, an "ark-in-scal waistcoat," i. e., a vest of such beautiful variety of color that the French tailor's genius called it a rainbow, (*arc en ciel*).

Jack Randolph, as he was always called in Virginia; Col. Wm. R. Johnson, "Old John Wickham," noted for Tinto Macon; Jas. Harrison, politician and turfman; Col. Nat. Macdon, Dr. Wych, Dr. Brownlow and Chief Gustner Marshall were among the characters who attracted the eyes of the immense crowd. It was a two-mile race for three-year-olds, six entries, and Captain Belcher won it in two straight heats on his horse, Lafayette, through Virginia and Sir Archie, a great grandson of Diomed.

Captain Belcher, afterward one of the famous turfmen of America and the owner of Red Eye, was then twenty-nine years old. To-day he seems to carry his eighty-one years with ease. His frame is wiry; his keen gray eyes are very expressive and intelligent, and his manner soft and gentle. Sitting before the great log fire in an old Virginia mansion of a winter night, it is a rare treat to hear him tell of the olden time—the racing, the cock fighting, the drinking, and also the fighting, for in those days the terrible "smooth bores" were the accepted arbiters in all disputes, business, politics, or society.

#### FLORIZEL AND PEACEMAKER, 1808.

The old Broad Rock course near Richmond was the scene of this remarkable race, which so excited the people generally that ladies staked bracelets and rings, boys bet their marbles, and the gentlemen planters their negroes. Many a pretty farm changed hands, and for many years afterwards "niggers" won on that race were called after the two horses. In those days the first ladies of society were always present in the "ladies' pavilion," as the stand allotted to the fair sex was called; and if descriptions of those scenes be true, they were as enthusiastic and noisy in their applause as the Roman ladies at the chariot races, as represented by Jerome and other painters. Both these horses were famous four-mile nags, and were accustomed to being held in at the first and let out at the last, which is the reverse of modern tactics generally. The finest horse would jump twenty-two feet at first and twenty-four at the finish. Old racers smile at the dash races of our time and deride the degeneracy of the stock; but it is likely that real speed is as well developed, and too great a strain on the horses avoided.

The famous Red Eye, in his race with Nina and Lawson, ran twelve miles in less than twenty-four minutes; and, though I have not the time made by Florizel, it is likely that it was a somewhat similar achievement. There is only a dim tradition now of Florizel and Peacemaker, but we may imagine the high scaffold which was erected for the negroes who were staked, and hear the excited voices of the betters: "I'll bet you Caesar on Peacemaker!" or, "I'll go you Dinah on Florizel!" "Two number one field hands and a good breeding woman on Florizel!" and other equally significant offers; for there were as many as five hundred slaves lost and won, and as many more hypothesized to the "traders" who were the great brokers of the slave oligarchy. The race was won by Florizel.

#### RED EYE AND NINA.

This famous race was run at Broad Rock in the fall of 1853. The famous son and daughter of Boston monopolized the public attention, though Lawson also ran. Red Eye won the first heat, Nina the second, and Red Eye the third. Politics, the Virginian's unvarying theme, and tobacco, the Richmond merchant's delight, were all forgotten in the excitement and betting, and a certain young lawyer was called the Virginia Sheridan for an excellent bon mot: "Id certum est quod certum reddi potest."

It was asserted that a certain well-known proacher was to

be hauled over the coals for being caught on the quarter stretch, but the bishop, who was doubtless deeply infected himself with the general excitement, charitably let the sportive parson off. Horse-racing, card-playing parsons were features of the colonial society, and the P. F. V.'s, so proud of their ancestry, could not consistently go back on the revival of a time-honored custom. More staid, dignified and proper burghers were drunk that day than ever were seen before, but the occasion was so great that it was a sufficient excuse for anything. Red Eye was a busy devil to be held in, so Con, his owner, very wisely told the boy to let him win the first heat, which, according to accepted ideas, was wrong, because Red Eye's great point was his bottom. So at the finish of that heat there was such a pandemonium as was never heard on a race-course before. When Red Eye came to the string the next his eyes were glaring diabolically and he reared and charged and seemed to jump forty feet at every stride. The third heat was between the horse and the mare only, and as I have said, the former, at the close of the race, had run twelve miles in 23:41.

The Washington course at Charleston in old times was the best in all its appointments in the country. The ladies' pavilion was a marvel of propriety and elegance, while the assemblage of gentlemen was unequalled in America for wealth and aristocracy. The Broad Rock and the Fairfield courses have not felt the hoof of a four mile nag for many a year, and are not likely for many another to see such a display as used twice a year to draw the Virginians there in crowds. Trotting stock is one reason, but the principal cause of decline is the fall of the old planter aristocracy of the Old Dominion.

In the further South there is a marvelous change even in the last few months from the desolation and chaos which characterized the last decade. The typical "old plantation" is reviving; the negroes turn to their former masters since the demise of the carpet-bagger, and the nature of cotton planting demands large farms. Already the system is so far changed into a co-operative one between land-owner and negro that it is safe to say that large plantations, as in the olden time, will be almost universal. When this is the case the aristocratic planter will patronize the turf, and the race-courses will be as grand as before—except the old Metairie, which a lottery man bought and made into a cemetery, because the Jockey Club blackballed him. PAGE McCARTY.

For Forest and Stream.

#### AMONG THE PINES AND VIOLETS.

SOUTH CAROLINA is not remarkable either for the picturesque wildness of her scenery or her rural beauty—a flat, sandy country, covered mainly with extensive growths of pine forests, whose monotony is seldom broken, save by a log cabin in a clearing, or a plantation sometimes in a flourishing condition, but oftentimes decaying as it were, or long since deserted. Nowhere is found that rugged beauty of a northern wilderness, nor the charming pictures of our rural life, with its cosy farms nestling among the hills, with views of mountain, lake and stream, nor the pretty swampy woodlands, where the woodcock's treble is heard, and further up the hillsides the whirring of the ruffed grouse. None of these has South Carolina.

But anon one will wander on a bit of stray picturesqueness, hidden away in the ever-present pine forest—a lonely hill, with its rock-strewn side, its lofty pines, its undergrowth of dog-wood rhododendron and sparkleberry, the ground carpeted with fragrant wild flowers. Tiny streams springing from beneath rocks, almost enveloped in sweet-scented jessamine bushes, ripple down hill, over moss-covered stones, and are lost to view among the covert undergrowth. The blue sky is above us. At the foot of the hill the pine woods stretch away, and meet the horizon on all sides. Such places as this are sometimes stumbled upon in quail shooting, and agreeable is the change to him who has seen but pines, sand and sky for a couple of hours past.

"Shall we try the quail this afternoon," queried my friend, whom we will call Jack Herbert, as we sauntered up and down the length of a broad piazza, which composed part of a noted winter resort in the southern part of South Carolina, where I happened to "hold forth" last spring. "By all means" I assented, and after a few more preliminary arrangements we parted, to obey the summons of a nondescript looking son of Ham, with a gong, that forerunner of Southern dainties as only our old "aunties" knew how to prepare.

After a light dinner and still lighter cigarette of the "Vanity Fair," I retire to the privacy of my room to don "Holbird," etc., and, taking my breech-loader, saunter to the stables, where I discover Jack to be already there, his fancy English check suit has been replaced by a velvet coat, corduroys and thigh gaiters, while Dick, his handsome, and still better fine working pointer is whining with excitement to be off. Jack swings lightly into saddle, I follow, the grizzled old negro lets go the hacks, and we are going at an easy lope through the town which is situated near the confines of the Hotel's grounds; this is soon passed, and we are bounding through a sandy road leading through the woods. But bounding even on a light dinner is not consistent of much profit, or in other words don't pay, and we sober down to a more easy gait.

Passing through the woods we come to a large open stretch of what we might call meadow-land with quite a pond a slight distance from us—for we have left the road, and are now riding "cross country"—the whistle of the winter "yellow leg" is heard from the high grasses that line the pond, and it is agreed that I shall dismount and attend to him. Dick the pointer is at down charge by his master's mare, and I proceed in the direction of this wily bay bird. The bunch of grass from whence the noise first proceeded is now within twenty yards, it is surprising that the leggy individual should lie so long—when I see a long billed head thrust through the reeds. A double whistle, and not one, but two winter yellow legs are on the wing before me. A miss it first barrel, the second brings one tumbling down at the water's edge, his mate circles round, and soon alights at the side of her dead companion. Fresh cartridges are inserted in the smoking barrels, a step or two nearer to her is reached, and then the long wings are doing their best. Bang! a few eight shot go crashing through her, and down she drops at mid-distance across the pond. The gun reloaded, I signal Jack who is minding the horses, an excited and interested observer, to send Dick to retrieve, and at his master's "Heigh ho" he comes bounding toward me. Picking up the bird which fell at the water's edge I send Dick after the other which is soon retrieved.

Walking down to the pond's lower edge where Jack is with the horses, Dick is at my heels; when to my left is a sort of rippling, rushing commotion among the water grasses and a teal duck rises. Bang! he falls to the water, but not dead, quick as thought I pour the other barrel into him before he can dive, and now he lies as lifeless as a wooden decoy, with the pointer's help he is soon in the game rack of my sh-oting coat. Joining Jack, who congratulates me on my little bit of unexpected luck, I find he is willing to hunt the other side of the pond, so I mount my horse gun in hand, and holding the bridle of Jack's mare with the other, I am all eyes for the field. Jack and his pointer have almost reached the limit of hunting ground on the off side of the pond, and my friend is looking about him the picture of comic despair; suddenly Dick points about twenty feet from a mnddy spot covered with a few bog tufts. My companion walks up, "scape, scape," and an American snipe goes twisting up wind; a puff of smoke, a report again breaks upon the stillness of the soft spring air, and *Scolopax* again makes his last dive to the ground.

Again we are both in the saddle riding through one of the sand rivers which intersect many of our Southern woods. The aroma of the pines is wafted to our nostrils by the wind which is a trifle cool perhaps, for a Southern early April. Now the ground commences to rise, now getting too stony for equestrianism. We are at the foot of the only hill of size for miles around, and on it we expect to find a few covics of quail, or as they are termed "down south" partridges. Dismounting and securing the horses each to an adjacent tree we commence the search for *Oryzopsis*, Jack and I about twenty yards apart, and the dog ranging on Jack's "off" side, and circling in advance. Shortly the stony character of the ground is changed, short grass with covert briar patches here and there upon the soil give a more agreeable mode of locomotion than that afforded by the treacherous boulders. Now a sweet, soft, delicious perfume is wafted passed us by a cool breeze, a step farther and we are among them, the blue-eyed Southern violets carpeting the ground as far as the eye can reach. Here and there are other species of pretty little flowers scattered among them. The fragrant yellow jessamine bushes spring up on all sides, a spring comes bubbling from under a mossy boulder, and goes dancing in its own little channel, seeming like the fabled perfumed water of the fairy tales of our younger days as it glides along almost hidden by the wild flowers on its banks. We halt here for a moment to quench our thirst, the eye roams down the hill. As far as the eye can reach, save one or two church spires which rise above the pines in the distances and proclaim the distant presence of the village, all is one mass of pine trees, which are seemingly lost in the skies, as the blue horizon engulfs them.

Sufficiently rested, we commenced to hunt with a will, our feet sinking at every step in the most beautiful and luxuriant of nature's carpets. "Steady, Dick," I hear Jack exclaim, and at last we have the first point of the afternoon. With Jack to the left and I to the right of the dog we advance step by step with him, a loud whirr of wings, and from beneath their jessamine cover a fine bevy take wings, a simultaneous report on the part of Herbert and myself as we pick out our birds on our respective side, then bang! bang! go our second barrels, and we mark the quail down in the distance. The pointer is at charge, and we reload, Herbert quietly remarking that he has made a double shot, and his birds lie among a patch of pansies. I have seen one of my birds drop and point out the direction accordingly. Dick is ordered to retrieve, and the beautiful birds are one by one picked out of their flowering beds and transferred to the deep and not odoriferous flavor of the game rack. We now direct our steps to where we marked the bevy which is a short distance on a level portion of the hill, and we expect great sport with the single and double rises. A step more on my part, a bird flushes from beneath my feet and is dropped with my best wishes within twenty yards. Now Dick points, and Herbert stepping up makes a glorious miss—the quail, like a bullet, is quartering past me. I fire, but he still goes on and is lost to sight for a second behind some tree trunks, and comes for an instant in view before disappearing in a clump of briars, but that instant is fatal to him, and a soapshot from my gun kills him at about sixty yards. Tipping up the breeches of my gun to insert fresh cartridges Dick makes another point, two birds rise, one Jack kills, the others fly straight past me "so near and yet so far," for before I can lock the gun she is out of sight. A few yards further on the dog points again, Herbert calls me and offers me the shot, which I accept; and putting the bird up miss it beautifully and my companion does likewise. At the two last reports two or three quail, probably the last of the bevy, flush of their own accord, and depart for pasturage unknown, and where we have not the inclination to investigate and proceed to hunt up a fresh bevy. Two more flocks are found during the afternoon, and our game pockets possess quite respectable proportions, bagging nineteen quail between us.

The sun has half disappeared below the horizon when we regain our hacks, and the rather chill evening air causes us to proceed rather briskly homeward through the pine woods, now gloomy with the approach of night, for the sun has quite sunk below the distant tree-tops; the lights of the village appear in the distance. Arriving at this, and taking the shortest cut through it we pass through morckdarkness and scattered cabins, and then arrive at the hotel grounds. Riding to the stables and leaving the horses, and seeing that Dick has his evening meal we walk toward the mass of windows and light which denotes the hotel. We enter the office, deposit the birds with injunctious to have them served for dinner next day.

FRANK WARWICK.

For Forest and Stream.

## BRUNO, THE RANCHE DOG.

BY J. C. BURNETT.

GOOD duck shooting is exhilarating sport—perhaps no more so in Colorado than anywhere else—but I never found it more to my liking than that we unexpectedly discovered on the plains near the mountains, some ten miles south of Denver. My brother and I were spending a few weeks at a ranche there, preparing for extended trips to South, Middle and Estes Parks, and other attractive places, getting acclimated and accustomed to pony riding, and providing the essentials for six months camp life, hunting, fishing and sight-seeing.

Our six weeks' stay at that ranche is an illuminated recollection, a splendid picture, as it were, in the wonderful academy of design, commonly known as memory. Looking back to it now, we see the grand old Rockies in the distance, the un-

dulating plains near by, and here and there a man with dog and gun in quest of game along the rapid streams. The river and creeks near, and a pretty little lake two miles off, were frequent resorts in the month of April for green and blue-winged teal, dusky and gray ducks, pin-tails, fish ducks, brants and geese, and other aquatic fowls. There were also great numbers of snipe, and among them the beautiful white and black American arcoets. In all my rambles there, however, I never found any jack snipes.

A short distance from the cabin one drizzly day, I "scooped" nine ducks at one shot, much to the amazement of the ranche dog, who had recently taken a wonderful fancy to my gun, and the, to him, strange work it did bringing down game. The dog was a cross between a Newfoundland and a shepherd, large, shaggy, generally good-natured, ugly in a rough and tumble encounter with any opposing forces, and, for his opportunities, quite intelligent. On every occasion, and frequently when his untamed nature made him a nuisance—for instance when hunting grouse with my pointer—he would notice preparations for a hunt, sneak off unobserved, and join me a mile or so from home, where I could not control him. He was such a staunch friend though, ever ready for a chase or a fight, and such a reliable companion at night in camp I could seldom refuse to let him come along, even when his services were not needed, and when his presence was sure to spoil any sport which required a good nose and careful action. His influence upon a pointer I had brought with me was also bad. This, together with the fact that the pointer soon lost his nose, or scent, caused, it was said, by the rare atmosphere, deprived me of valuable assistance in hunting grouse. The ranche-dog was famous for catching skunks. He could find one of those odorous cats and jerk the life out of it quicker than any dog in the country; and he did it without despoiling his coal-black coat or tainting himself with the suffocating perfumes of *mephitis*. How he did it was a mystery. Ponto, the gentle and high-toned pointer, was, alas, induced by Bruno to try the same experiment, but he blundered fearfully, and for a week was exiled from the little community, living in disgrace and retirement in the bushes along the river. There he made the acquaintance of some beavers, and succeeded with Bruno's help in driving them out of their retreat one day and killing two of the young ones—all of which, of course, was very bad business for a pointer to be engaged in.

One morning early, I tied Bruno in the corral, and with Ponto following, set out on a pony for a few hours shooting at the lake, and on a creek a mile north of it. The sky was a little cloudy, but promised well, and ducks were flying overhead as soon as it was light.

The two miles between our ranche and the lake were partly up a steep divide, cut with breaks and ravines, and partly on an elevated piece of table-land, or mesa, from which the view to the mountains, fifteen miles off, was beautiful beyond any attempt to describe with pen or pencil. On the level ground I gave the pony the rein, a touch of the spur, and went on a gallop, inhaling the pure, crisp air with fuller inspirations for the benefit of the lungs, and feasting my eyes upon the scenery limned against the sky in the beautiful West. The blood bounded through arteries and veins with the invigorating exercise, and the mind was aglow with the stimulating influences of the inner life and the outer world.

Arriving in sight of the lake, I was delighted to see it literally covered with ducks, while flocks were arriving in detachments from distant fields every few minutes. The scene was a capital one for a sportsman, and I thought no more of the mountains I had been studying, clothed as they were in royal purple, their gorgeous old domes gleaming and flashing in the morning sun. Turning to follow the leeward side of a small ravine to the south end of the lake, I was dismayed to see the ranche-dog coming toward me, capering and bounding in the most exuberant spirits, as if he had arrived just in time to be of eminent service, and determined to stand by me in any emergency! To say that I was provoked and angry is stating the fact pleasantly. All the excellent sport, which seemed so certain to follow a few minutes before, was now apparently ruined by the overflowing good nature of an unmanageable cur.

To make matters reach a crisis as quickly as possible, he espied the game, and went helter-skelter down to the shore and into the water. A cloud of ducks rose in the air, and I yeamed for the power of one of the mythical deities, that I might transform the dog into a statue of marble, or even change him into a stump that would do to hide behind in getting a shot. But there was no help for it. The old dog knew no such thing as minding, and besides he seemed to wonder what ducks had wings for if they were not to fly with. So, tying the pony to a stake at the mouth of the ravine, I determined to make the most of what opportunities I should have. I soon found a hollow in the ground, nearly hidden by grass and weeds, where I concealed myself, and, making Ponto lie close, awaited events.

A stiff breeze had sprung up, and on the wings of this the great cloud of ducks bore down toward me. As they turned at the south shore to fly back, some of them already overhead, and loud with the discovery of myself and the dog, they came up abreast of the wind, and in such confusion that they struck each other's wings, vaulting upward and diving below again, to get room for freer progress. There was, in fact, a little too much confusion. It was difficult to decide where to shoot, although most anywhere would have been certain of execution. Selecting a line where there was the greatest hubbub, I fired two shots in instant succession. Whew! what a fall was there, my fellow sportsmen! Six ducks "tumbled to the racket" dead, and as many more wounded fluttered to ground and water. Ponto gathered up the slain, proud of his education, while Bruno, excited by the firing, swam ashore and scampered to the other end of the lake, determined not to let the birds rest there.

Nothing could have happened more fortunately. The air was full of ducks, each individual stretching his neck to the utmost and quacking the wild alarm, while snipes and curlews from off the prairie, whistling sand-pipers and noisy kill-deers, shrieking avocets and croaking bitterns, added their notes of warning to the general consternation. It was a Babylon of splendid confusion for a duck hunter, and one there was who enjoyed it. In a few minutes the ducks came round again, tacking against the wind as before, and I got another pretty shot, bringing down five. Ponto had his hands, or rather his mouth, full of business, and Bruno slashed about like a mad dog, utterly beside himself with his wonderful exploits. If the ducks came down to the water in the middle of the lake, he swam out and scared them up; if they flew to the other end, he considered it an especial duty

to get around there as quickly as possible and drive them back. Ponto sat on his haunches near me when he had brought in the game, looking intently at the old dog, turning occasionally to me with a comical wink, apparently wondering what I thought of the performance, and whether it was according to rule to cut up such fantastic tricks before high heaven when there was game about and his master there with the gun.

Again and again the flocks, now scattered and thinned by desertion, came sailing overhead, and one and two and three at a time tumbled into our possession. In the course of two hours there were thirty-five ducks and five avocets piled up on the ground by the side of my hiding-place. Ponto got weary catching the wounded ones that fell on land, and finally, when the ducks were nearly all gone, lay down to lick his wet hair and paws, and receive the certain praise that was sure to follow good behavior. Bruno came up cautiously, uncertain whether he would get blame or thanks; but when he too was patted in recognition of services rendered, his joy was as boundless as his energy had been before, while at the water's edge he pranced and sniffed the breeze as if he was sighting for other world's to conquer.

To kill more would have been useless slaughter, so I tied the birds together by making a neck of a stick and drawing a string through their bills, threw them on the horn of the saddle, and returned to the ranche. The ducks were in excellent condition, apparently just from the rice and celery fields in the distant South, where they,

"Feeding high and living soft  
Grow plump and able-bodied."

There were several savory roasts and stews at our cabin during the two or three days following, and many were sent to neighboring ranches, where they were prized as highly as at our own. Other days of jolly recreation followed, and for a month we feasted on snipe and ducks and the plump curlews we found masquerading one at a time on the prairie. After that our attention was given to bigger game, and the grander scenery of the Pacific slope of the Rockies.

For Forest and Stream and Rod and Gun.

## AN INDIAN ROMANCE OF THE REVOLUTION.

I WAS in my outfit to-day watching the harvesters at work, when the reaper struck a stone which I picked up. It was about the size of a man's head, and underneath was found a broken piece of crockery, evidently the bottom of a plate, and on it a picture of a canoe propelled by three Indians. What would I give to know the history of him who once feasted from this broken plate. On this spot, now gleaming with a golden harvest, once stood an Indian cabin. The owner of the land who then lived here was a beautiful maiden of the Chickasaws—Rhoda Gunn, famed throughout the nation for her wonderful beauty. She was descended from a Virginia gentleman named Gunn, through whose veins coursed the proud blood of the cavaliers. During the war of the revolution her father was a staunch loyalist, who fought as bravely for the crown as any cavalier in the days of Charles the First and the Roundheads. With the triumph of the American cause Gunn scorned to dwell among those whom he considered rebels. He gathered together property, which consisted chiefly of slaves, and sullenly departed, leaving Virginia and civilization, to seek a home among the Chickasaws. This tribe had been friends of the English, and had been their allies in the wars against the French. Gunn was kindly received, and being adopted into the tribe, still further identified himself with them by wedding one of their maidens. It is said that the royalist exile always celebrated the birthday of King George, and allowed no sound of merriment on his place on Independence Day. He died in the year 1826, leaving a large estate to his children. A portion of the inheritance of the writer was left by Gunn to his granddaughter Rhoda, the belle of the Chickasaws, and one of the sweetest wild flowers of the forest.

When the white man entered the Chickasaw territory, Rhoda Gunn was in the first dawn of womanhood, and her wealth and superior attractions drew many an adventurous land speculator to her feet. But in vain the white man wooed the haughty Indian maid; she looked upon them as the race who had wronged her grandfathers, and she had inherited all of the elder Gunn's contempt for the race of rebels. Although many a Saxon suitor sought her hand, and poured into her ears the old, old story, they sighed in vain. The grandchild of the faithful loyalist was to be won by no carpet knight. But her smiles and her love were given to a dusky warrior of the Chickasaws; one who had nothing to offer his lady love but a strong arm, a brave, true heart that had never forsaken a friend or quailed before an enemy.

And there upon the spot where my reapers were gleaming to-day they dwelt, and there is nothing left of the home of the proud beauty but this relic of a broken plate which lies before me. And but few who are now living know anything of the Gunn family; or who will care to remember the traditions of the race that welcomed the proud royalist to their hearts and home. Gunntown, on the Mobile and Ohio railroad, was named for the elder Gunn, yet even its inhabitants are unacquainted with the origin of its name.

This is a true history, not merely a romance of the forest, although there is so much romance in it. But few of us are left, who were here when the red man occupied this land. With us will pass away the kindly memories of their race. Let us recall those memories while we may. The savage of the far West to-day is not the Indian I knew in my childhood, for, kind reader, I was not born in the United States, though I was born near the spot where I now reside. I was born a subject to Ish-ta-ho-to-pa and Puc-ca-lah, the king and queen of the Chickasaws, and in my heart I am a loyalist to this day. The Chickasaws were the allies of the white man, a pure, brave and virtuous race when the white man came amongst them. The civilizing influences of Christianity corrupted and destroyed them. They were cheated out of their land and sent westward, where they are still swindled and persecuted,

"Let politicians prate  
Of equal rights which men never knew—  
I have a love for freedom, too."

PROUS JERMS.

Honesty and candor are not only the most moral but the most effective buttresses of business. B. T. Babbitt does not claim a rich, strong perfume for his Toilet Soap, but he does say, and does contradict in it, that no toilet soap is equal to it in absolute purity and excellence. The materials themselves communicate a delicate odor, like that of a bank of violets in spring time.—[Adv.]

## Natural History.

### THE GIANT SQUIDS.

At a recent meeting of the Connecticut Academy of Arts and Sciences, Prof. A. L. Verrill, of Yale, made some very interesting remarks upon the three additional specimens of gigantic cuttlefish, discovered during the past year upon the American coast.

These large cephalopods all belong to the genus *Architenthis*, a specimen of which—and one of the most perfect yet found—is now on exhibition at the Aquarium in this city. One of the principal characters of this genus, and a point in which it differs from all other squids, is the presence on the two longer arms of suckers, by which it is enabled to fasten together its two wrists, so called, so that the two long arms may be used together, and their power thus greatly increased. The smaller squids, wanting these suckers, are obliged to use the long arms independently. It is generally known that near their extremities the long arms become wider and earlike in shape, and are here furnished with large sucking disks, the margins of which are raised and serrated. These serrations are strong and sharp, and when the disks are applied to the skin of the cuttlefish's prey the atmospheric pressure forces them into it, and the victim is so firmly held that it has no hope of escape. Such suckers as these, however, would not answer when the flesh which is to receive them is the squid's own, and for this reason the rims of the sucking disks which hold the long arms together are without the serrated edges of the more distant suckers. One more condition, however, is necessary in order that these proximal disks shall fulfill their office. It is well known that even though a sucker may resist all vertical pressure, it can often be slipped to one side or the other with little effort. Thus the receiver of an air pump, although it may resist any effort to raise it directly, can easily be slipped to one side and then removed from the floor upon which it rests. The smooth disks of the long arms, if they acted directly on the soft and viscid flesh, would be very likely to slip when any lateral pressure was excited, and in this way their usefulness would be, in a great measure, lost. To obviate this difficulty the long arms of *Architenthis* are furnished with rows and clusters of small protuberances, or tubercles, which are so placed as to fit into the corresponding smooth suckers on the opposing arm, thus securing the union of the two arms beyond the possibility of any slip. This genus has other well marked characteristics, but they are of little general interest and need not be enumerated here.

Of the three specimens remarked upon by Prof. Verrill, the first was discovered in a very imperfect condition on the coast of Newfoundland nearly a year ago. It had suffered severe mutilation before it was discovered, having been partially devoured by foxes and sea fowl. Its head was gone, and all of the arms were gnawed down to within about two feet of the body. What remained of the body and tail measured five and one-half feet in length. The absence of the head, the arms, and a portion of the tail, that is to say, of the most characteristic part of the body, rendered it uncertain to what species the monster belonged.

The second specimen was discovered by Prof. Verrill during the past summer—preserved in alcohol in the museum at Halifax—and appears to be an entirely new species, though a careful examination shows it to possess the generic characters of the genus *Architenthis*. It is much smaller than any known species of this genus, its body being only about twelve inches long, while the total length of body, tail and outstretched arms is altogether less than four feet. One remarkable fact in regard to this specimen is the extreme width of the tail. This member measures thirteen inches in breadth and is thus wider than the body is long. This too is the only individual of the genus yet found in which the eyes are perfect. Fishermen, who have to deal with animals with which they are but imperfectly acquainted, and especially when these animals are as terrible in appearance as the great squids, generally destroy the eyes at once if possible. They seem to think that if they can destroy the creature's sight its power for harm will be lessened, and they are very likely to stick their boat hooks into the eyes and thus destroy them. This was the case with the specimen now on exhibition in this city, to which reference will be made below. The eyes of this small species was quite remarkable from their shape, being oval instead of round, as would have been expected. Their color in life was probably a dark green or greenish black. Of the specimen at the Aquarium less need be said, as probably all our New York readers will have seen it before this reaches them. It is of much importance, from a scientific point of view, as it belongs to a species the soft parts of which have never before been seen by any naturalist. *Architenthis princeps*, Verrill, was described some time since from a pair of jaws which had been taken from the stomach of a sperm whale, and the capture of this New York specimen is a very happy occurrence, as it serves to set right one or two points about which naturalists are at fault. The jaws of this species were very much larger than those of any other large squid, and it was supposed that the animal itself must be proportionately large. This, however, proves not to be the case, as *princeps* is just about equal in size to *monachus*, a species with very much smaller jaws.

The capture of fourteen specimens of these remarkable cephalopods within the past few years indicates that they are

by no means so rare as has hitherto been imagined, and the probabilities are that within a few years all of our larger museums will be supplied with specimens. The fishermen of the Newfoundland coast have hitherto been in the habit of cutting up these creatures for bait or for dog meat, but in view of the prices which they have lately brought, it is doubtful if many more will be used for these purposes.

Of the fourteen individuals of this group which, as above remarked, have recently been secured, thirteen have been taken upon the Atlantic coast and one on the Pacific. The genus seems to be, about this continent at least, quite boreal in habit, and the specimens secured have almost all been taken on the shores of Newfoundland.

**ALEPIOSAURUS.**—Two weeks ago we printed in our paper some reference to the capture of a specimen of this exceedingly rare fish, which was recently brought to Mr. Eugene G. Blackford, of Fulton Market. Since then the inquiries of Mr. Blackford respecting the habits and habitat of this fish have elicited much interesting information which is contained in the subjoined letters. We are indebted to Mr. Blackford for handing them over to us; and we may as well say here that Mr. Blackford is daily accomplishing more for science in bringing his strange specimens to the attention of naturalists than any other man in the country. It is fortunate that we have a gentleman in his position whose proclivities lead him to take advantage of the unusual opportunities for the study of ichthyology which his business affords:

SMITHSONIAN INSTITUTION, WASHINGTON, Oct. 22, 1877.

MR. E. G. BLACKFORD:

Dear Sir—Your favor communicating the desired information respecting the capture of the *Alepiosaurus* has come to hand, and interested me very much. I was scarcely prepared for the discovery of the fish in so high a latitude as the northern edge of the "Grand Bank," but nevertheless am not much astonished at it. The *Alepiosaurus* are among those fishes which inhabit the very deep seas, the temperature of which varies comparatively little with latitude, and which may therefore be looked for in almost any region where the depth of water and other conditions are suitable. Perhaps you may be interested in some facts respecting the range of this family, and this I take pleasure in giving.

The *Alepiosaurus* have been variously arranged in the system by naturalists. At first they were quite generally regarded as being related to the Scomberoid fishes (mackerels, hair-tails, etc.), but the absurd idea that they were related to the Siluroids (catfishes) was at one time seriously put forward by Dr. Günther, the author of a complete work on fishes. In 1861, however, Dr. Günther and myself (Proc. Acad. Nat. Sc., Phila., p. 152) independently recognized that they were most nearly related to the Paralepidids, and in a much more remote degree to the Salmonids; but they form a distinct family, represented by five species confined mostly to the deep seas. You doubtless noticed the "looseness" and flaccid condition of the fish you obtained; such a condition is a pretty certain feature of deep-water habitat, and is the expression of the great pressure to which the animal is subject under the conditions of its habitat. When in such deep water it was undoubtedly as rigid and firm as fishes generally are, and only under an unaccustomed slight pressure does a laxity of the parts of the body supervene. The family is represented by two genera and at least four species.

The earliest scientific description of a species of the family was given by Steller, but published for the first time in 1811 in Pallas' "Zoographia Rosso-Asiatica," in an incidental notice in connection with *Salmo Japonensis*. Steller obtained a dried specimen while at the Carib Islands, and gave a moderately good description, naming the fish *Playodus*. Next, the Rev. Mr. Lowe, in 1838, discovered a representative of the family at the island of Madeira, and gave it the name *Alepiosaurus Jerox*. Since then Valenciennes, Gus Richardson, Johnson, Rey, Günther and myself have obtained specimens, and the following species are now known:

1. *Alepiosaurus Jerox*. Found off the Island of Madeira, the Grand Bank, and, if Günther's determination is correct (which is very doubtful) off Van Diemen's Land. Günther records seven specimens preserved in the British Museum.

2. *Playodus borealis*. Found at the Carib Islands and in Puget Sound.

3. *Playodus serro*. Found off Monterey, Cal.

4. *Playodus altivelis*. Found off the Island of Cuba.

The species of *Alepiosaurus* has nine (or ten) rays in the central fins, and those of *Playodus* thirteen rays in the homologous fins.

I have been told that *Cantopus borealis* sometimes ascends into comparatively shallow water in pursuit of the salmon, and is known as the "Salmon Killer," but this requires verification.

The specimen of *Alepiosaurus Jerox* sent by you must have been not far from six feet long when entire. The head formed over nine inches of this length, the body about four feet, the short ray of the caudal about six inches, and the external rays of the latter projected far beyond, but being broken their exact dimensions cannot be ascertained; the height (from back to belly) was about five inches; the dorsal fin has 4 rays, and was high but sinuous, the 4th ray being  $9\frac{1}{2}$  inches long; the 10th, 13; the 15th, 9, and the 24th, 19.8. The anal has 16 rays; the caudal 19, besides the supplementary ones (9, 1, 9, 8, 1, 8); the pectoral, 14; and the ventral, 9. The pectorals are 8 inches long, and the ventrals 4.

I hope intensely that you may be able to secure for the Institution specimens in good condition of this species and other deep sea forms. Mr. Brevoort has written to me that he has identified a fish caught by a Dutch sea captain in 1679, on a voyage to America, with this species, and this is undoubtedly the first recorded example of the fish.

THEODORE GILL.

The following letter was received by Mr. Blackford in response to his inquiries respecting the circumstances under which the fish was taken:

GLOUCESTER, MASS., October 13, 1877.

MR. E. G. BLACKFORD:

Sir—The strange fish that was sent to you was caught on the northern edge of the Grand Banks, in a part of the ground called the Gutley, in 325 fathoms of water, on a trawl, by one of our halibut catchers, on a piece of ground that, as near as we can understand, represents a valley between two mountains, as the schooner anchored in 175 fathoms of water, and within one hundred yards from her stern, she had the depth of water mentioned—325 fathoms; they also caught 16 sword fish on the same trawl, and the captain told me personally that they hauled up trees, such as are generally to be found on this bottom, so large that they could not get them into their dories, and furthermore he said that the bottom must be just the same as if they were in the woods on shore; for it seemed that a part of their trawl would catch in the branches, and then a short distance would drop down in clear spots, and in the ravines there would be plenty of large gray halibut, and occasionally a

fish of the kind sent you, this being the third or fourth one we have had brought home this season. We also had another strange fish which should have been sent to you, but it was so far decomposed, that we could not do so. But if at any time there is any fish caught that I do not know you shall certainly have it sent to you.

Respectfully yours, GLOUCESTER FISH CO. OAKS.

### PROFESSOR COPE AND HIS DISCOVERIES IN TEXAS.

THE HORSES OF OLD—THE ANTE-DILUVIAN COWS—HOGS OF TODAY WITHOUT THE CLOVEN HOOF.

TEXAS has lately been favored with a large delegation of members of the American Association of Science, which convened at Nashville, Tennessee. They passed rapidly on the cars through the country, staying less than half a day at Austin, and remained only about a week in the State, with the exception of Prof. E. D. Cope, the eminent paleontologist of the United States Survey of the Territories, who remained in Texas several weeks. He has just left Austin for his home at Philadelphia. The specialties of the Professor are vertebrate fossils, also fishes and reptiles. He has been very successful in obtaining vertebrate fossils in the recent tertiary (Pliocene) of South Western Texas on the rivers Frio and Medina. Of these fossils he has sent to Philadelphia fifteen boxes, a large portion of which are mammalia. Among them are several species of the horse and one species of the bovine genus. Prof. Cope has had a party collecting these bones during the summer. Twenty years ago it was generally thought that horses were first introduced into America by the Spaniards, but later investigations prove that both the horse and cow dwell there at least as soon or before the creation of man, but they were of different species from ours. In digging wells in Washington County in this State at the depth of about 30 feet, bones are frequently met, among which those of the equine species are not uncommon.

About seventeen years ago a gentleman at New Braunfels gave me several horse teeth which were found at the depth of about 20 feet in the tertiary rocks a few miles south of the town. From the size of these teeth the animal must have been nearly as large as the modern horse, but of a different species.

Prof. Cope also visited the region northwest of San Antonio, near the head waters of the Llano and San Lake Rivers. The rocks here are limestones of the Cretaceous period. These rocks have marine shells, but no bones of the vertebrate were found. Pecaries, or Mexican hogs (*Dicotyles torquatus*) were quite abundant, being frequently met. A few years ago they lived as far west as the Brazos River, but now they are seldom if ever met much further east than they were lately found by Prof. Cope. Once the Pecary was said to have lived as far north as Arkansas. It may be that some of them yet live in the timbered region of south-eastern Texas. I never met with any in the northern part of Texas, but I have been told that they are not found in New Mexico.

Amid the rocks of the hills on the head waters of the Llano, Prof. C. saw a black and gray squirrel, or spermophile (*Spermophilus Buckleyi*, Slack.) which was described by Dr. Black in 1861, from a specimen which I obtained in Burnet county. They are about the size of the common black squirrel. In habits they are gregarious, dwelling in rocks and seldom climbing trees.

Perhaps the most important discovery made by Prof. Cope in western Texas is that of a domestic hog, with undivided hoofs similar to those of a horse. Nature in a freak first made one, and from that more came, and now they are quite numerous and raised for meat. The Professor has the skin and skeleton of one for his collection. This is one of the most important arguments known in favor of evolution, for here we have not only a new genus but probably a new order of animals evolved or created; but the first change was sudden not gradual. Might it not be called a new creation?

Austin, Texas, Oct. 22, 1877.

S. B. BOOKLEY.

**BIRDS' NESTS IN CURIOUS PLACES.**—Messrs. Holland and Holland pointed out that a bird's nest had been discovered in a coach-box. We have known of nests being discovered in very remarkable positions. The redbreast is the most freakish of all birds in this way. Several years ago a redbreast built its nest inside a human skull that had been left exposed in a burying-ground in the parish of Dysart, in Fifeshire. That burying-place was then little used, and it is now closed up. We have seen a redbreast's nest inside an iron tankard that had been cast aside as useless among weeds. At Balbirnie Saw Mills, in the parish of Markinch, a redbreast built its nest, and brought forth a healthy family within a few feet of a circular saw daily in motion. Another erected its "mossy house" in the heart of an azalia growing in a pot in a greenhouse at Balbirnie Gardens. We have seen one constructed within the sleeve of a workman's coat that had been left hanging on a tree; the workman, on making the interesting discovery, allowed his coat to remain on the bough, and the redbreast's labors proved fruitful. We have seen a sparrow's nest inside the cavity of an iron buffer of a railway wagon, and an oxeye's nest in a broken beer-bottle; while not long ago the nest of a thrush was pointed out to us inside the spout of a pump, but the frequent demand for water caused the thrush's efforts in nest-building in such a place to be abandoned.—*Land and Water.*

—There have recently been deposited in the South Kensington Museum, in London, six models illustrative of Pueblos, or cliff houses, cave dwellings and lowland settlements, which are found in Southern Utah, New Mexico, Colorado and Arizona. A similar series of models were on exhibition at the Centennial, and were no doubt noticed by many of the readers of FOREST AND STREAM.

Additional specimens of both the male and female of the remarkable new eelidna *Zachygnossus bruidii* have been secured in the mountains of Northern New Guinea by an expedition under the command of M. Laglaize, a young French naturalist.

Cincinnati is about having an aquarium, and not only one of them, but aquaria are spoken about. The Cincinnati Aquarium Association seems to have taken the initiative, and has for rival the Zoological Garden people. Perhaps it would be wiser, for the present, to have but one aquarium in Cincinnati, then a single establishment might concentrate all the means and be a true attraction. An aquarium is something not built up in a day, requiring time, experience, and no small outlay of money.

WILD CAMELS.—The discovery made by Mr. Prjevalsky, the Russian traveler, that wild camels existed in the Loh-Noor districts of Thibet, is of singular interest. Whenever the rare opportunity presents itself of comparing the original type of an animal with such divergencies as always occur through domesticity, the study of such modified changes is of vital importance to the student of natural history. The popular information in regard to camels is often of the most erroneous character. The *habitat* of the camel is much wider than is generally supposed. In fact, the camel seems to thrive not only in temperate regions, but can withstand a cold climate. M. Prjevalsky states "that the wild camels differ out little from the domestic animals," and that of the four specimens in his collection, "the difference existing by the examination of their skulls almost alone showed where the divergence from the domesticated animals existed." It would be interesting if Professor Leidy or Marsh were to compare the structure of these wild camels with some of those fossil forms of llamas which have been discovered in our own country.

ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDENS FOR WEEK ENDING WEDNESDAY, Oct. 24, 1877.—Three salamanders, *Splyteris bitineata*, presented; one salamander, *Splyteris ruber*, presented; one pine snake, *Pterophia melanoleucus*, purchased; one black snake, *Isoecianus constrictor*, presented; four horned antelopes, *Antilocapra americana*, purchased; three Arabian sheep, presented; one beaver, *Caster canadensis*, born in garden; one banded rattlesnake, *Crotalis horridus*, presented; one Co. oliv. rail, *Porzana carolina*, presented; one alligator, *A. mississippiensis*, presented; one pinnated grouse, *Cupido capid*, presented; one alligator, *A. mississippiensis*, presented; one iguana, *I. tuberculata*, presented; one short-eared owl, *Haryolops pahastris*, presented; one red fox, *Vulpes fulvus*, presented; one naked necked iguana, *Iguana deltoideus*, presented; one Java sparrow, presented; one zebu, *Bos indicus*, presented; one water snake, *Trigidonotus signatus*, presented; one hog-nosed snake, *Heterodon platyrhins*, presented; one opossum, *Didelphys virginiana*, presented; one deer, presented; three Arctic foxes, *V. lagopus*, purchased; one sparrow hawk, *Falco sparverius*, presented.

ARTHUR E. BROWN, Gen'l Sup't.

## Fish Culture.

### HOW FAST DO TROUT GROW?

THIS question has engaged attention of late in these and other columns. There seems to be a difference of opinion, based upon observations made from different standpoints. There are various breeds of trout, as there are of cats and cows, and the localities which wild trout inhabit, as well as the methods of raising domesticated trout, have much to do with the rapidity of their growth. Fish culturists separate their trout according to their ages and stages of growth, and are therefore able to tell pretty accurately what weight a fish of a stated age will attain in a given time. Yet, as we have remarked, domesticated trout, in some localities, gain weight faster than in others, so that the evidence of a man's own eyes is not always sufficient testimony to establish a criterion. For instance, the well-informed Dr. Garlick, of Ohio, expressed his doubts in the last issue of FOREST AND STREAM of Dr. Hassbrouck's seven-inch, two-year-olds, and gave his reasons therefor. If we can determine that some domesticated trout grow as rapidly under certain conditions as some wild trout do under similar favorable conditions, then the two docters may at once agree to disagree; for we have here before us the best of evidence, obtained from careful tests, that some brook trout will gain nearly a pound per weight per annum. The evidence adduced has already been published in substance; we copy it as printed:

In reply to queries as to the probable age of the mammoth trout found in the Rangeley Lakes, Prof. Agassiz emphatically declared that "no man living knew whether these six and eight pounders were ten or two hundred years old." To get some light upon this question, Shepard Page, Esq., President of the Quonset Club at Rangeley, conceived an ingenious device, which he at once proceeded to put in execution. Platinum wire was obtained, cut into one and a half inch lengths, flattened at one end, and various numbers were stamped on the surface from 1 to 4, also the numbers 70, 71, 72, to denote the year. As trout were captured they were weighed, one of these tags was passed through the skin just under the adipose fin and securely twisted, and then the fish was liberated. In the course of two or three years named, a large number of these trout were thus labeled. Of course the chances that any of them would be caught seemed infinitesimally small, yet in 1873 one of them reported. In June of that year, Mr. Thomas Moran, the artist, captured a fine, vigorous trout weighing 2 1/2 lbs. Upon taking him from the landing-net the platinum tag flashed in the sunlight. Upon examination, the mark "3-71" was discovered, thus establishing the curious fact that this particular fish had gained 1 1/4 lbs. in two years.

Of course all fish culturists know that trout under two years old grow slowly, and after that more rapidly, as is the case with the true salmon, and Mr. Page's half-pounder may be over two years old when labeled; but this is not proba-

ble. We see no reason to dispute that a Rangeley trout may not be seven inches in length at that age, while the wild trout of our small mountain streams may live to be a hundred years old, and then fall short of these dimensions. Each fish culturist must determine the question of growth from his observations on his own preserves. They may not tally with those of other breeders.

ABOUT GRASS FOR FISH PONDS.—A pisciculturist asks us "what kind of grass or weed would be best adapted to a pond with a gravelly bottom, situated in Vermont?" Such growth of weeds in fish ponds becomes often a necessity in pisciculture. This vegetable growth affords not only a snug nursery for the young fish, but sweetens the pond, besides attracting the flies, on which fish feed. Will some of our readers kindly give us some information on this subject, of making grass or weeds grow in the water? In carp culture vegetable growth is a *sine qua non*.

SALMON TROUT ON THE PACIFIC COAST.—On the Pacific coast salmon trout attain a weight of some 18 pounds. They make their appearance about November, and, after spawning, leave in March or April. As to comparisons of length as to weight, an 8-pound fish will measure about 34 inches long, a 6-pound fish some 32 inches. They never ascend very far up into the smaller creeks or rivers, and are rarely found more than 18 to 20 miles from the sea. Before their final departure for the ocean they seem to dally for quite a while in the brackish water, sometimes for a month or so. As a fish requiring skill in capturing, having no end of pluck and game in him, the California salmon trout is the sportsman's delight.

MORE ABOUT McLEOD RIVER TROUT.—In our last issue we called attention to the McLeod River trout. A California friend gives us the following information in regard to these fine fish. They spawn in January, and the eggs are quite as large as those of the *Salmo quinnat*. After hatching, and before the egg sac is absorbed, they are fully 1 1/2 inches long, quite the size of a salmon of the same age. The flesh of the McLeod trout is not as intensely pink and ruddy as that of the ordinary trout, rather of a pale cream color. As a game fish, California anglers say it has no equal.

FISH CULTURE IN ILLINOIS.—Two hundred thousand California salmon eggs arrived at Geneva Lake, Wis., on the 16th instant, and were placed in the fish-house of W. K. Fairbank. They will be hatched during the winter, and turned loose in the lake early in the spring. These eggs were received direct from McLeod Lake, California, packed in two large crates, with ice and moss. They were taken under the direction of Professor Baird, United States Fish Commissioner at Washington. Mr. Fairbank deserves great praise for his public spirit, as shown in his efforts to stock these waters with food fishes for the past four years. He has made liberal expenditure of time and money in furtherance of his plans, and maintained a hatching house at considerable expense. In 1875 he placed in Geneva Lake 17,000 Oswego bass; in 1876 the following fish were raised in his hatching-house and turned into the lake: 250,000 salmon trout, 112,000 white fish, 50,000 brook trout, 1,500,000 wall-eyed-pike, and 30,000 California salmon. In the year 1877 he added a still larger number of various kinds of fish. A grand total of 8,657,000 fish have been successfully hatched and placed in the waters of the lake. In a few years Geneva Lake will afford the finest fishing in the world. ROVER.

### SPLIT BAMBOO RODS.

To our customers and the public:—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street N. Y.

INFLUENCE OF WINE BOTTLES ON WINE.—It has recently been discovered in France that wine may be injured through the glass of the bottles in which it is contained being to alkaline. According to analyses given by the *Revue Industrielle*, glass for wine bottles should yield per 100 parts: silex, 58.4; potash or soda, 11.7; lime, 18.6; clay and oxide of iron, 1; other ingredients, 0.3. Glass in bad bottles has been found to contain: silex, 52.4; potash or soda, 4.4; lime, 32.2; clay and iron, 11.1. The wine suffers principally from excess of lime. Thus, in glass composed of silex, 45; soda, 15; lime, 30; and clay, 15; for example, the wine became thick, and lost its aroma. The best bottle glass contains from 18 to 20 parts lime, and 59 to 60 silex; the worst, 50 to 52 silex, and 25 to 30 lime.

We take this from an English paper. Evidently Sancho Panza's uncles (who were famous wine tasters) must have been around lately.

SHOOTING-BOX FOR SALE.—We would call attention to an advertisement, which seems to offer singular inducements to any one desirous of acquiring a snug shooting-box in the State, where not only all kinds of game may be found, but where excellent arrangements have been made for the comforts of the sportsman. In the necessary outfit, besides horse and cow, good dogs and cocker-spaniels are offered. As we have a personal acquaintance with the gentleman who is desirous of disposing of this property, we have every reason to believe that any purchaser would be fully satisfied with the acquisition of this shooting-box.

## Woodland, Farm and Garden.

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, SEC. N. Y. HORTICULTURAL SOCIETY.

Then came October, full of merry glee;  
For yet his noule was totty with the must,  
Which he was treading in the wine-fats see,  
And of the lousous oyle, whose gentle lust  
Made him so frolic and so full of lust:  
Upon a dreadful Scorpion he did ride,  
The same which by Diaues doon unist  
Slew great Orion; and eke by his side  
He had his ploughing-share and coultre ready tyde.

SPENCER.

### MUSHROOMS.

MANY are deterred from attempting to grow mushrooms by the idea that it is a very difficult matter, and that there is some secret about it. They have been so plentiful and cheap this fall (owing to the continued mild weather) that numbers have had an opportunity to taste the real article, with its true flavor—perhaps for the first time. The canned mushroom is all very good when nothing better is to be had, but the amateur who has a proper place to make a mushroom bed loses many a pleasant meal if he neglects their culture. Any spare shed or cellar can be used for the purpose, and perhaps the latter is most suitable, as in severe weather it can be kept at a more equable temperature—a shed in connection with a greenhouse, especially if a hot water pipe can be led round it, is better yet. The one thing necessary, however, being a temperature of 45 to 50 degrees. Let him reject all the fanciful methods of growing them as unworthy of notice, and make up a bed about four feet in width, one foot in depth, and not less than ten feet in length. This ought to be supplemented by just such another, say every three or four weeks, to give a constant succession right through the winter. Mushroom beds may be made up with all horse droppings, or what is better, part horse droppings, litter and any good soil or leaves. Indeed it does not matter much what material they are made of so long as it will heat of itself when made up, which it ought to do in about a week. When at a nice degree of warmth, it can be spawned, but if it is hot the spawning must be deferred until the heat begins to decline. It will be perfectly safe to do so when the heat of the bed is about 75 degrees, provided it is not increasing. The spawn, which can be had at any seed store, should be broken up into pieces about the size of a butternut, and dibbled into the bed about six inches apart and three inches deep. If the temperature of the bed be at 70 degrees it may be covered with an inch or so of soil at once; if 75 degrees it had better be deferred for a week. The bed must be maintained at a nice degree of moisture, but under no consideration must it be allowed to become too much so. When the materials are dry the spawn will not run, and no mushrooms will be produced; on the other hand, if kept too wet it will perish altogether. As a rule, very little moisture will be required, but when applied it should be warmer than the temperature of the house so as not to cool down the bed. After the beds have been in bearing some time, they may be watered with clear tepid manure water, made or formed only from sheep or cow manure, no soot or lime being used. It is astonishing how long a bed will keep in bearing with this treatment. When growing in clusters, as they frequently do, they must be cut off as low down as possible, the necessary care being taken to avoid injuring those remaining. The temperature of the shed or cellar should be maintained if possible between 45 and 50 degrees, and the doors and windows kept closed.

HORTICULTURAL NOTES.—Cut asparagus down to the surface of the ground, clean the beds well and cover with a good coating of rotted manure. A slight sprinkling of salt will be grateful, but the spade must not be used on the beds.

—Deciduous trees may now be planted at discretion. Fruit trees, roses, forest trees and ornamental shrubs may be planted at once, for the ground is still warm, and will become cooler every day. The longer therefore planting is delayed, the longer will the trees require to make the new roots, on which their vigor next season will depend. Never plant while the soil is saturated, but wait for a dry spell and then go ahead. Water plentifully to settle the soil round the roots.

—Chrysanthemums are now at their best. This has been a wonderfully fine season for them. Our fall season seems to be lengthening, so we advise all our friends to plant them, and only the best pompous varieties at that.

THE FARM.—The following beautiful picture is the concluding passage of the address delivered by Hon. Edward Everett, before the State Agricultural Society, in Boston, in 1837: "As a work of art I know few things more pleasing to the eye, or more capable of affording scope and gratification to a taste for the beautiful, than a well situated, well cultivated farm. The man of refinement will hang with never wearied gaze on a landscape by Claude or Salvator; the price of a section of the most fertile land in the West would not purchase a few square feet of the canvas on which these great artists have depicted a rural scene. But nature has forms and proportions beyond the painter's skill; her divine pencil touches the landscape with living lights and shadows, never mingled on his pallet. What is there on earth which can more effectively charm the eye or gratify the taste, than a noble farm? It stands upon a southern slope, gradually rising with variegated ascent from the plain, sheltered from the north-western winds by woody heights, broken here and there with moss-covered boulders, which impart variety and strength to the outline. The native forests have been cleared from a greater part of the farm, but a suitable portion, carefully tended, re-

mains in wood for economical purposes, and to give picturesque effect to the landscape. The eyes range round three-fourths of the horizon over a fertile expanse, bright with the cheerful waters of a rippling stream, a generous river, or a gleaming lake, dotted with hamlets, each with modest spire; and if the farm lies in the vicinity of the coast, a distant glimpse from the high grounds of the mysterious, everlasting sea, completes the prospect. It is situated off the high road, but near enough to the village to be easily accessible to the church, the schoolhouse, the railroad, a social neighborhood, or a traveling friend. It consists in due proportion of pasture and tillage, meadow and woodland, field and garden.

"A substantial dwelling, with everything for convenience and nothing for ambition—with the fitting appendages of stable and barn, and corn barn, and other farm buildings, not forgetting a spring house with a living fountain of water—occupies, upon a gravelly knoll, a position well chosen to command the whole estate. A few acres on the front and side of the dwelling apart, to gratify the eye with the choice forms of rural beauty, are adorned with a stately avenue, with noble, solitary trees, with graceful clumps, shady walks, a velvet lawn, a brook murmuring over a pebbly bed, here and there a grand rock, whose cool shadow at sunset streams across the field; all displaying, in the real loveliness of nature, the original of those landscapes of which art in its perfection strives to give us the counterfeit presentment. Animals of select breed, such as Paul Potter, Morland and Landseer and Rosa Bonheur never painted, roam the pastures or fill the hurdles and the stalls; the plow walks in rustic majesty across the plain and opens the genial bosom of the earth to the sun and air; nature's holy sacrament of seed time is solemnized beneath the vaulted cathedral sky; silent dews and gentle showers and kindly sunshine shed their sweet influence on the teeming soil; springing verdure clothes the plain; golden wavelets, driven by the west wind, run over the wheat field; the tall maize flaunts in her crisp leaves and nodding tassels; while we labor and while we rest, while we wake and while sleep, God's chemistry, we cannot see, goes on beneath the clouds; myriads and myriads of vital cells ferment with elemental life; germ and stalk and leaf and flower, and silk tassel, and grain and fruit, grow up from the common earth; the mowing machine and reaper—mute rivals of human industry—perform their gladsome task; the well-piled wagons bring home the ripened treasures of the year; the bow of promise fulfilled, spans the foreground of the picture, and the gracious covenant is redeemed, that while the earth remaineth, summer and winter, and heat and cold, and day and night, and seed time and harvest, shall not fail."

NOTICE TO SPORTSMEN.—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting.

P. O. Box 1,294.—[Adv.] ABBEY & IMBRIE, 38 Maiden Lane.

## The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

### CANINE THERAPEUTICS.

#### ASTRINGENTS.

ASTRINGENTS are medicines which produce contraction of living tissues; that is, a certain shrinking or condensation of structure, which, though not attended with visible movement, is nevertheless obvious in its result, as in that well known condition of the skin known as "goose-flesh," produced by exposure to cold. That astringents have this effect locally, is proved by the diminution of bulk in any part of the surface to which they may be applied, and by the strong "puckering" sensation occasioned when they are taken in the mouth. There is no doubt but they operate upon the mucous membrane of the stomach and bowels when brought directly in contact, precisely in the same manner as upon the mouth and skin. Experiment has proved that astringents are absorbed; and we draw the deduction that they are carried everywhere with the blood, thus acting by direct contact. When such contact is obtained, the organic contractility of tissues are stimulated and they shrink.

The effects upon the system are, besides the condensation of tissue just mentioned, diminished calibre of arteries, veins, capillaries, absorbents and ducts; diminished excretion, exhalation and absorption; constipation of the bowels and increased firmness, along with contraction of the pulse. The blood becomes more coagulable, probably by the same influence being exercised upon its constituents as on solids. Astringents are said also to increase the appetite and invigorate digestion. This effect they undoubtedly have in debilitated states of the function connected with relaxation of tissue. It is reasonable to suppose that, even in health, with a very moderate degree of their peculiar influence, they may produce some slight increase of the functions. Many of this class of remedies also exert a tonic influence, as with vegetable astringents, which, besides their characteristic ingredient, not infrequently contain a bitter principle also, and with preparations of iron, which are essentially and powerfully tonic, while they are in some degree astringent.

Upon a little consideration it will be seen that astringents, though stimulating organic contractility, may often prove sedative to the healthy functions, when employed freely or too long. The digestive function is impaired in consequence of the diminished secretion of the gastric juice, the restrained

peristaltic movement of the stomach and bowels, and the impeded absorption. As a result of this defective digestion, if from no other cause, the circulation is enfeebled, nutrition suffers, emaciation takes place, and a general reduction is experienced in the functions and forces of the system. When applied to delicate surfaces in great excess, instead of acting simply as astringents they become irritants. In the denuded skin they excite inflammation, and taken in the stomach cause gastric and intestinal pains, nausea, vomiting, and sometimes diarrhoea, their astringent influence being either prevented or overwhelmed by the irritation.

The indications for the use of this class of remedies are such as might be inferred from their physiological effects: First, to check morbid discharges; second, to obviate morbid relaxation; and third, to check inflammation in its earliest stage. For the first two they may be used either generally or locally; for the third they must be applied directly to the seat of the inflammation.

We will first speak of their use internally—i. e., when taken into the stomach—and it must not be forgotten that in their operation upon the mucous membrane of the alimentary canal they act as directly as upon external surfaces; the only difference being that they cannot be so freely applied to the former, in consequence of its greater sensitiveness, the greater danger of any excess of action, and the impossibility of limiting the extent of their application, or readily removing them if found to be injurious.

One of the principal uses of astringents, as administered internally, is to check morbid discharges. In fulfilling this indication they act by contracting the pores of the blood vessels through which the discharge takes place. Two distinct kinds of morbid discharges are affected by them; the one consisting in excessive or deranged secretion or exhalation, the second in hemorrhage. In reference to their influence in checking the latter, astringents are denominated styptics. In both some cautions are required in their use.

When the discharge depends upon some local or general disorder, which it is intended to relieve, as plethora, active congestion, inflammation, or the presence of noxious matters in the blood, astringents as a rule are contra-indicated; and the same applies to what have been denominated critical discharges (i. e., having reference to a crisis), though strictly speaking these belong to one of the preceding categories. As astringents operate only in a general way, by merely closing the avenues by which the fluid escapes, and have no effect in removing the disorder which the discharge is intended to relieve, it is obvious that they may, under these circumstances, do great mischief. If they check the discharge they may increase the real pathological condition; if they fail, their own irritative effect is superadded to that previously existing.

Again, an originally morbid discharge may have become habitual, and the process of digestion and sanguification having taken an increased activity, the system may have accommodated itself to the drain. Astringents in such cases might disturb this balance, and give rise to dangerous local congestion or general plethora. Therefore they are best left alone except in the hands of a physician.

Astringents are applicable when the discharge is purely local, and dependent on no co-existing disease; as, for example, in hemorrhage consequent upon an accidental rupture of a blood vessel, either from direct violence or from a sudden and temporary wound, produced by straining, position, etc. They are also applicable when the affection depends upon debility or relaxation of the coats of the blood vessels, either original or consequent upon previous excessive excitement, which has quite disappeared. This is a very common condition in the advanced stages of inflammation, and it is, perhaps, under such circumstances that this class of remedies are upon the whole most useful.

Another condition which sometimes, though rarely, calls for them, even under otherwise opposing indications, is when the discharge is so copious as itself to become the main source of danger. Thus a hemorrhage from the rectum, intended by nature as a relief to serious plethora and partial congestion, may be so frequent or abundant as to put life in jeopardy, in which case it must be arrested without hesitation. It is not infrequently necessary to choose between such opposite indications, and the prudent man will always prefer what may seem to be the least of two evils. Again, there are certain individual remedies of this class which, with their astringent property, unite others calculated to relieve the affection in which the discharge originated, and against which, therefore, the contra-indication before mentioned has less force than against the members of the class generally. Thus, acetate of lead, while powerfully astringent, is also anti-phlogistic (i. e., tends to reduce inflammation), and may sometimes be advantageously employed to arrest morbid secretion from inflamed surfaces, when other astringents would prove very injurious.

It is unnecessary here to detail all the diseases in which astringents may be useful, and the circumstances in each which modify the indication for their employment. This will be sufficiently elucidated when we begin to describe the remedies themselves, and when we come to write of the different diseases. Guided by the above principles, and aided by the pathology of the case in hand, each will judge for himself when occasion offers. When we come to speak of diarrhoea, dysentery and hemorrhages, the indications and uses of astringents will be thoroughly explained, as applicable to these complaints, in which this class is most frequently employed, and, I am sorry to say, generally with ill results to the animal.

Again, astringents are used to obviate morbid relaxation, which, in the majority of instances, is attended with morbid discharge, and the two indications are fulfilled at the same time. But occasionally there is an unhealthy laxity of the non-secreting tissues, and even the secreting may be affected in the same way without increased extravasation. In scrofulous diseases, to which the canines are equally as liable as man, and other diseases dependent upon defective or depraved nutrition, this condition is not uncommon, and astringents are often and advantageously used in their treatment. In the convalescence from febrile and other acute diseases, especially when somewhat protracted, the same condition not infrequently exists, calling for the same remedies. It is probable that many of the tonics which are so valuable under such circumstances owe as much of their virtues to their astringent as their tonic properties, as the salts of iron, for instance. In chronic inflammation of the mucous membrane of the stomach or bowels, when all acuteness is passed, and the blood vessels are merely passively distended, or ulceration exists, which, in consequence of the laxity and icebleness of the tissue, are unable to take on the healing process, there would appear to be an indication for astringency, and the fact is, some of the most efficient remedies in such affections belong to this class, as sulphate of iron.

TO CHECK INFLAMMATION.—The indication for this class of remedies in the early stage of inflammation, founded on their

property of contracting the vessels, and thus excluding in some measure the blood necessary for the support of the inflammatory process, can seldom be fulfilled by their internal use. To answer this purpose they must be brought to act upon the inflamed vessels in a more concentrated state than would be safe, or indeed possible, in the blood, through the medium of absorption, and they would consequently be wholly inapplicable to any inflammatory affection, the seat of which could be reached only through the circulation. Even in inflammations of the alimentary canal, there would be too much risk that, if used large enough to have any powerful effect, they might act more disadvantageously as irritants to the sound parts than usefully as astringents upon the inflamed, as it would be impossible to limit their application to the latter and, besides, there is always difficulty in deciding whether the inflammation has not passed the point at which any good can be expected from them. Hence, astringents can seldom be used internally, with the view of rendering commencing inflammation abortive, and it is only externally or topically that, as a general rule, they can be beneficially applied upon this principle.

For the external use of astringents the same indications exist as for the internal, and they are even more effectual by the former method than the latter.

For arresting morbid discharges they are employed in excessive secretion, resulting from advanced or chronic inflammation or debility of the vessels, in the nostrils, conjunctiva, external ear, mouth and fauces, urethra and bladder, vagina, and rectum. Hence their use in chronic *coryza*, and *ozena*, *ophthalmia*, *otorrhoea*, *cystorrhoea*, and mucous or purulent rectal discharges. They are the most effective remedies in hemorrhage from all these sources. The same caution should be observed as in their internal use; not too hastily arrest a discharge which is effecting some useful purpose. But they may sometimes be employed with propriety topically, where we might hesitate to administer them by the mouth, and almost always with greater freedom. Any irritation they may excite in external parts is much less hazardous than an equal amount in the stomach or bowels. Besides, we can in this topical method exactly limit their application, if deemed advisable, and should they act too powerfully, may remove them. They may, moreover, be used much more effectually than by the stomach, because in a more concentrated state.

For obviating relaxation not essentially connected with excessive discharge, they are employed in a great variety of affections, as in prolapsed anus, uterus, etc.; in indolent, flabby and fungous ulcers, and in various other conditions of local debility, attending or following advanced and chronic inflammation of the different surfaces mentioned in the preceding paragraph.

In the forming or early stages of inflammation, with the view of contracting the capillaries, astringents are often and most usefully employed. When, however, that process is in full vigor, and sustained by a plethoric state of the blood, or some cause acting strongly through the constitution; when, too, exudation has taken place in the tissue, and blood may have coagulated in some of the vessels, astringents will often fail to produce their characteristic effect, and may even increase the inflammation by acting as irritants. But even under such circumstances, after the activity of the inflammation has been subdued, they may again be resorted to, and will now more frequently succeed where they had before failed. Hence this class is used locally in inflammation of the conjunctiva of the mouth and fauces, of the rectum of the mucous membrane of the genito-urinary passages, and of the skin. It is upon this principle, in part, that they operate so usefully in various cutaneous eruptions. But in the choice of astringents for these purposes there is great occasion for the exercise of judgment. From their diversified powers, some are applicable where others might prove injurious. It is obvious that those which possess other anti-phlogistic powers besides astringency must be more efficient in answering the indication than pure astringent. Hence the minerals are generally more efficacious than the vegetable substances belonging to this class.

I should, perhaps, before have mentioned that astringents are of two classes: those derived from the vegetable kingdom and those from the mineral. The former are distinguished by a striking similarity of properties, which has been ascribed to depend upon a peculiar proximate principle known as *tannin* or *taninic acid*. Though this, as found in different products, differs somewhat in chemical character, yet both in this respect and its sensible therapeutic properties, it is so nearly identical that in relation to its many uses it may be considered as one substance. Taninic acid seems to be purely astringent and destitute of other physiological property. The vegetables, therefore, which contain little or none of any other active principle than this may be looked upon as proper representatives of the class. But these are very few. Most of the vegetable astringents also contain a bitter principle, which somewhat modifies the influence of their taninic acid, and might entitle them to rank with the tonics, which they markedly resemble in their effects. But so far as their astringency is concerned, they are essentially different from that class of medicines, resembling them only in this single point, that in cases of debility connected with deficient vital cohesion of the tissues, they increase strength by restoring to the tissues the compactness necessary for the proper exercise of their functions. It is obvious that the bitter astringents are less applicable than taninic acid itself, or the pure astringents, to those cases in which it is desirable to stimulate whether locally or generally, as little as possible.

The mineral astringents have in general nothing in common but their astringency. Each has peculiar properties of its own, which render it applicable to peculiar purposes. Thus the preparations of lead are sedative; alum has an alterative influence; sulphuric acid is refrigerant and tonic, and the preparations of iron have remarkable tonic properties, and a peculiar power of modifying the blood. Between the sulphates of zinc and copper (white and blue vitriol), however, there is a remarkable coincidence of properties, though the latter is vastly more powerful than the former.

LYNCHBURG DOG SHOW.—At the Dog show held in connection with the Lynchburg Fair, Oct. 24th, the prizes were awarded:

For the best imported dog or bitch, first premium of \$20, or a silver cup of equal value, awarded to Dr. W. A. Strother & Frost. Second premium to T. S. Warren's bitch Lou. For native-born setters, Gen. Wm. R. Terry's dog Sport received the first premium of \$30, and G. T. Johnson's dog Fleet, received the second premium of \$20. For the best puppy under twelve months, H. B. Powell's Queen Bess received the premium of \$10.

—The time of closing entries in the Nashville Field Trials has been extended from November 1, to the 10th.

CELEBR.—This fine Irish setter, which, in another column is advertised for sale, is a very desirable purchase; he is well broken and a good hunter.

A NEW BREED OF DOG.—An actual incident at the Boston Dog Show.—Enter inquisitive old man and wife, near stable containing a pup staghound, in process of retrieving from young Irish attendant his morning's meal.

Old man—"What kind of a dog is this, my friend?" Young Irish attendant—"Sitting Graveyard, No. 2, yer Honor." Old gent repeats information to wife, and passes on.

SAWBONES.

PHILADELPHIA DOG SHOW.—There is to be a bench show of dogs in Horticultural Hall, Philadelphia, the last week of November. Between \$1,200 and \$1,500 are to be distributed in prizes. The Adams Express Company will transport dogs at one-half their usual rates. All information may be obtained by addressing the committee at Horticultural Hall.

Sea and River Fishing.

FISH IN SEASON IN NOVEMBER.

Mack Bass, Micropterus salmoides; Weakfish, Cynoscion regalis, M. nigricans; Bluefish, Pomatomus saltatrix, Spanish Mackerel, Cybium maculatum, Yellow Perch, Perca flavescens, Sea Bass, Scomopus ocellatus, Striped Bass, Morone tinnectus, White Perch, Morone americana.

FISH IN MARKET.—The supply still scarce, owing, as much as anything else, to the bad weather. Bluefish, as is their wont, have turned to the South and are now being caught off Cape May. Bass, according to size, 15 to 18 cents; bluefish, 10 to 12 cents; salmon, frozen, 30 cents; mackerel, 15 cents; weakfish, 15 cents; white perch, 15 cents; Spanish mackerel, 30 cents; halibut, 18 cents; kingfish, 30 cents; codfish (source of supply, Block Island), 8 to 10 cents; blackfish, 15 cents; flounders, 6 to 10 cents; lobsters, 10 cents; sheepshead, 25 cents; scallops, \$1.25 per gallon; soft clams, 30 cents per 100; large do, 60 cents; whitefish, 18 cents; salmon trout, 15 cents; hard crabs, \$3.00 per hundred.

The fishing for striped bass in the vicinity of New York is remarkably good, and much sport is afforded.

MOVEMENTS OF THE FISHING FLEET.—The shore mackerel fleet continue in the neighborhood of Cape Cod, meeting with indifferent success, and it becomes more and more apparent that the mackerel stock for 1877 will be the smallest. The Bank fleet continue to make short trips, and bring in light fares, 12 have been reported the past week. The market has been fairly supplied with fresh halibut, but the receipts of Bank codfish have not been large. We notice receipts of 145,000 lbs. halibut and 365,000 lbs. Bank codfish. The Georges season is drawing to a close. 20 arrivals have been reported since our last issue, with 160,000 lbs. codfish and 6,000 lbs. halibut. The stock on the market is small, the call fair, and prices well sustained. Total number of fishing arrivals for the week, 48. —Cape Ann Advertiser, Oct. 26.

RHODE ISLAND.—Providence.—A favorite resort for gunners is Westquogue Pond. The pond is separated from Providence River only by a long, high sand hill, which, with the hill and woods opposite, completely enclose it. Here are found stone snipe, meadow larks, plover and a host of other game birds. Beyond the pond are the cliffs, extending for nearly half a mile toward the ferry, and then falling into low, broken ridges. Below these cliffs is the favorite fishing of the neighborhood. Bass, tautog, mackerel, and in fact nearly all fish common to New England waters are here found in profusion. F. H. S.

NEW YORK.—New York.—The season for bass this year has been an unusually long one. The piers along the North and East rivers are daily crowded with fishers old and fishers young, fishers rich and fishers poor.

A BIG PIKE.—We saw in Mr. Bell's atelier, on Broadway, a pike which has been prepared for the State Museum at Albany. The specimen was forty-five inches in length, weighed nineteen pounds, and was caught in Warren county by a sixteen-year old boy.

PENNSYLVANIA.—Coneago, Oct. 27.—Bass fishing at the falls is the thing just now.

CALIFORNIA.—The State Fish Commissioners, from close investigation, have ascertained that the legal catch of salmon for the past three years, counting the fish caught at points in the bay below Benicia, and shipped to San Francisco or Sacramento, was, from November, 1874, to the first of August, 1875, 5,098,781 pounds; from November, 1875, to August 1, 1876, 5,311,423; from November, 1876, to August 1, 1877, 5,493,563. This shows an increase of about a million and a quarter pounds for this season, and is an indication that the fish were plentiful. —Pacific Life.

SALMON FISHING.

MEMORANDA OF A PORTNIGHT'S SOJOURN ON A SALMON RIVER.

ALBANY, October, 1877.

DIPOLO'S FOREST AND STREAM:

Last year the river was so high that it was the 20th of June before we could take a fish. This year the water was in splendid angling condition on the 15th of May. But as we deemed the 16th of June early enough to be on the ground, we lost the supreme sport which always accompanies the first run. We regretted the delay when it was too late, and made the best of our blunder. From the grand sport we had you can infer what we might have had if we had been on hand in time.

June 11.—Began fishing at 7 A. M. and hooked a fish at the second cast. Everything was favorable, and he was brought to gaff in thirty minutes. He weighed exactly thirty pounds. In five minutes I was getting my second. He was a very lively customer—showing himself a full length six times in as many minutes, and no wonder, for, when after an hour's hard fight, I landed him, I discovered that he had been hooked long. He weighed twenty-eight and a half pounds. My third,

taken as soon as I could cast for him, weighed twenty-six pounds. This was my morning's work with nearly as good sport in the afternoon.

June 12.—Hooked and fought a large fish for an hour, when he ran into the rapids below the pool and broke off. Next morning he was caught in a net (the Warden's) at the mouth of the river nine miles below. He weighed forty-four pounds. I had him within reach of my gaffer several times, but he seemed to be afraid to strike. I would rather have lost half a dozen thirty pounders, for he was the largest fish hooked in the river this season. Although I afterward fished faithfully I fished in vain. The water was so low and transparent in the pool I held that the fish were too shy to be lured. On returning to camp I recounted my fight and failure, and my companion consoled me thus: "Fish off are hooked and yet escape withal; But better hook and lose than never hook at all."

June 13.—A fine morning and excellent sport. In one hour and thirty minutes I landed three fish. The first weighed twenty-five pounds, the second twenty-six pounds and the third twenty-six pounds. Before 10 o'clock I killed two others—twenty-eight pounds and thirty-six pounds. All these fish rose head and shoulders out of water when they took the fly. I lost one fish—small, not over twelve pounds, but he was the liveliest fellow I ever struck. I could do nothing with him his movements were so eccentric and impetuous.

June 14.—A furious gale rendered casting impracticable. I succeeded, however, in killing two fish by a sort of half troll—ten pounds and twenty-nine pounds. I lost one because I was unwilling to disturb the pool by following him through it. My poetic friend rebuked me for my excessive caution, thus: "To slight a hooked fish you should never oughter; One fish in the boat is worth ten in the water."

June 15.—A lovely day—clear and balmy. Killed three fish weighing respectively, twenty-five pounds, thirty and a half pounds and twenty-six pounds. Missed four handsome rises unaccountably, and lost one by the hook breaking after a long fight. I never had such a succession of mishaps; but you know "misfortunes never come singly but by battalions." My poet friend comforted me with this couplet: "While ill luck always makes the foolish rare, Wise men are patient even when they fall."

June 17.—Had unusually fine play in the forenoon with a large fish. He kept me busy two hours before he was brought to gaff. He weighed thirty-three pounds. The others of twenty-one and twenty-seven pounds gave me a surfeit for the day.

June 18.—I had a provoking experience this morning. I struck a fish in swift water and after weighing anchor my canoe men made for the still water on the opposite side of the river—a distance of more than 200 feet. But the fish remained just where I struck him. This left 250 feet of my line to be "sagged" by the current. The result I feared followed. When the fish jumped, as he did repeatedly, the tension of the line was so great that he broke off; for "dipping the tip" under such circumstances is of no account. The strain caused by the current is beyond your control. When I found that I could not draw the brute out of the swift water I ordered my canoe men to go back. But it was too late. I lost my fish. Mem.—Always under such circumstances keep as near your fish as you can. A long line "sagged" by the current is a difficult thing to handle. I afterward killed four fish, eleven and a half, fifteen thirty-five and fourteen pounds. The latter was a slink—which, you know, is a salmon-angler's abomination—which induced the question "When may an angler swear?" Our poet responded: "When may an angler swear? Well, let me think; Why, when a salmon proves to be a sink."

June 19.—The fish are running very large. The three I took to-day weighed twenty-five, thirty-two and thirty-four pounds. No sport in the world is equal to the rise, strike and capture of these monster fish in swift water.

June 20.—A very bright day and the water as transparent as the atmosphere, and very low. I have had at least a dozen "false motions" from as many fish to-day; that is, they would start for the fly with a rush, and then, just before reaching it, stop as if shot and glide off as if conscious of danger. I could reach but one conclusion; the water was so clear they could see the canoe, the anglers, the rod and even the tiny line and leader, and were scared. Jock, the poacher whom Macdonald immortalizes in his "Starling" knew what he was talking about when he said that salmon water was in its best trim when it had "a wee drop porter in't"; that is, when it was rendered a trifle brown by recent showers. A single fish of twenty-three pounds was all I could lure to my fly, although my casts were never short of eighty feet. My friend was even more unfortunate than myself, and thus recounted his bad luck: "Fly the sorrows of a n angling tramp Whose bark canoe has borne him to you camp; For six long hours he's cast without a rise, And now seeks comfort from your camp supplies."

June 21.—To-day fish were everywhere lazily lying under the lee of a rock, slowly sailing about in the transparent pools, or leaping in sheer friskiness in their leisurely march toward the upper waters. Here, for instance, in the pool where I have been casting, eight or ten fish have been jumping all day. But nothing could lure them to the fly. After casting steadily for several hours I finally rose a fellow who had not been leaping and killed him. He weighed twenty-six pounds. In view of this propensity of salmon not to take the fly when in this leaping mood our poet recorded the following: "When you can win at cards without a trump You may take salmon when they're on the jump. 'Mong the huge humbugs on this earthly ball A leaping salmon is the king of all."

June 23.—A phenomenon. My camp companion while casting with a full sized "silver doctor" rose and struck a young salmon which weighed just half an ounce. He was a perfect beauty and rose to the fly like a little man. Although we fished faithfully all day this was the extent of our spoil, whereas my friend thus philosophized: "Weary and sad the angler seeks his lair, When glowing hope is changed to blank despair."

And this also: "As well make dinner from an empty dish As fish for salmon where there are no fish."

June 25.—A cloudy day and a fair catch. The fish are getting very shy. If the water had been in good condition I would have trebled my gaff, for the pools are full of fish. As it was I took but three—nineteen, twenty-one and twenty-four pounds.

June 26.—Three days of very indifferent success; one day without either a rise or strike. But we were at no time without good sport, for the sea trout were large and abundant, and we took them weighing from one to six pounds every day. For eating, as a steady diet, we preferred them to salmon. But trout was not what we came for, so, as our poet said: "To cast all day and never hook a fish Is supping chalice from a golden dish."

So we concluded, like the Arabs, "To strike our tents and sadly steal away Hoping to live to fish some other day." My score showed that my first four fish averaged twenty-eight and a half pounds. At the close my average was twenty-six and a quarter.

ter. This is the largest average I ever made. But for three of ten, thirteen and twelve my whole average would have approached thirty pounds. My last year's average was twenty-five pounds.

Three of party who went up to head waters had excellent sport. Their score was sixty-two, forty-five and thirty-eight fish in ten days.

This year's experience has confirmed me in my opinion that the very best time to fish is the moment the spring freshets have so far subsided as to enable you to reach the pool. I hope next year to be on my favorite river at just this best time. It will be weary waiting, but the interval will be filled with the pleasure of anticipation. G. D. Albany, Oct., 1877.

FISH ABOUT NORFOLK, VIRGINIA.—We are indebted to Mr. W. H. Seabury for the following valuable catalogue of the fishes found in the vicinity of Norfolk, Va.:

EDIBLE SALT WATER FISH.

Rock (Striped Bass)—Remain nearly the entire year; bait, crab or shrimp. Gray Trout (Snakehead)—In season April to November; bold bites. Salmon Trout—Spots more distinctly marked than in gray; similar habits. Roundheads (Kingfish)—May to November. Saltwater Climb (Black Fish or Tautog)—Very seldom found here over five pounds. Sheepshead—Abundant at mouth of James, York and Back Rivers. Porgy—Very similar in appearance to sheepshead. Spot—Small delicate pan fish; in their prime in September. Hogfish—The highest prized fish for the table. Sunfish (Pompano)—Not very abundant. Traveller—Small pan fish; lives by suction. Red Drum—Caught mostly on sea and bay shore. Black Drum—Caught mostly on sea and bay shore. Croaker—Always on hand during the fishing season; fair pan fish. Maiden (soup)—Very small and not abundant. Menhaden, (Mossbunker or Fat Backs)—Norfolk harbor packed with small fry. Black Will—a dark, perch-shaped fish, seldom ever over one and a half pounds; caught near fresh-water creeks; not very abundant; bite occasionally. Bluefish—April, May, November; caught together in seasons. Tattin—Small variety of above stay from April to December. Bonito—Large fish from two to five and a half feet; mostly taken with a gig. Shad—in prime order generally in March. Herring—Abundant. Hickory Shad—Abundant in spring and fall; no very large ones. Flounder—Earliest salt water fish in market. Mullet Jumping—Caught mostly at night by having a light at the bow of the boat which they jump at. Mullet Sea—Sharp bod bitter. Mackerel Spanish—Do not take bait; caught on bay shore. Mackerel Bay—A darker, heavier body than the Spanish. Jewish or Tarpon—An occasional summer straggler.

VARIETIES NOT USED FOR FOOD.

Alewife (Menhaden, Mossbunker or Fat Back)—The harbor packed with small fry. Salt Water Catfish—Caught near fresh water creeks. Flying Fish—Not very abundant; bite occasionally. Cat—No very large ones. Sting Ray—Numerous and troublesome. Dogfish—Abundant. Skate—Not numerous. Shark—A few large ones occasionally. Porpoise—Abundant. Eels—Very abundant and large. Pipe Fish—a very slim rod fish. Foolfish—Have a receding head; often strand themselves on the shore, hence the name. Hippocampus or Horseshoe—Occasionally seen. In addition to these varieties, the sea-coast often bring up rare kinds for which the fishermen can give no name.

FRESH WATER FISH.

Blue-monthed Perch, Brown Perch, Red Fl Perch, Raccoon Perch, Pike, Pickerel, Robin, Grindle, Catfish, Mud-sucker, Sturgeon, Perch White, Chub, Eels—These are brought mainly from Currituck Sound and the little streams flowing in, still a good many are brought from the small ponds in Princess Anne and Norfolk counties. Fresh water fishing is not much of an amusement here. W. H. SEABURY.

COOKING FISH.—The editor of the Rochester Express has been keeping batchelor's hall evidently, and gives the following excellent result of his experience:

Fish should be washed as little as possible, and white fish, after being cleaned and wiped with a damp cloth, should have the stomach stuffed with salt for an hour or two before cooking. Fish should be put on in cold water, so that the inner part may be sufficiently done and also, it is less liable to break. This rule holds good, except for very small fish, or for salmon boiled in slices, when boiling water should be used. The time will depend on the kind and size of fish, but it may be easily known it is ready by drawing up the fish-plate and trying if it will separate from the bone. Here, as in other things, practice is better than all the directions that can be given, so much depends on the strength of the fire and the size of the fish. A little salt and vinegar should be always put into the water, and some prefer their fish boiled in what is called a "court bouillon," and this is how it is done: Lay the fish in the fish-kettle with enough cold water to cover it, add a glass of wine or vinegar, sliced carrot and onions, pepper, salt and laurel leaf, a bunch of parsley, a faggot of sweet herbs or some of the same powdered and tied up in a muslin bag. These seasonings impart a fine flavor to most boiled fish, excepting salmon, and for fresh water fish it is considered very useful for getting rid of the muddy taste they often have.

PERSIAN FISHERIES.—A recent report by Consul Churchill on the trade and commerce of the province of Ghiler and Asterabad contains some interesting information with regard to the fisheries on the southern coast of the Caspian. From these fisheries vast quantities of caviar, singlass and dried fish are exported every year to Russia and the Caucasus. The sturgeon (called the seg mahi or dogfish), the salmon and salmon trout (called azad ni and sefid mahi) abound in the creeks and rivers along the coast of Ghilan and Mazenderan. The former, the most valuable of the three, produces the much-prized caviar, of which so large a consumption is made in Russia and in Turkey; while the sefid mahi, when dried, supplies the poorer classes of the provinces, as well as those of Shirvan, in salt fish at a very low price all the year round—a luxury which to them is very palatable with their rice, which constitutes their principal food. Within the last two or three years the fisheries of Ghilan and Mazenderan have been farmed out to a Russian subject named Leonozoff, who has agreed to pay to the Persian government the sum of 41,000 tomans a year for the monopoly. This contract is for five years, and, although the amount thus paid exceeds the amount formerly collected by the government for the said fisheries, it is calculated that a much larger sum might have been paid for the said fisheries, viewing the profits made by Leonozoff. When the winter season sets in, and the fish seek shelter in the creeks and up the rivers to spawn, upward of five hundred fishermen are employed. It frequently occurs that the fish are so plentiful—coming as they do in shoals—that they are bailed out of the water at the mouth of the creeks and rivers. Under such circumstances, as many as 30,000 fish are caught in a day. At other times prongs and hooks and nets are used. The sturgeon—which is deemed "haran" or unlawful for food by the Persians—is cut open for the purpose of extracting the roe and the gelatinous substance on the back. It is then salted and put into casks as is also the caviar, and shipped for Astrakan (the headquarters of

Leonozoff's business). There the caviar is put into tins and sent to all parts of Russia. It is calculated that the produce of these fisheries exceeds 200,000 tomans a year. No export duty is levied on this produce, and the Persian government have no control over this gentleman's establishment. It is, therefore, difficult to say what amount of profit is made, but the expense of catching, salting, packing and shipping cannot come to much less than 100,000 tomans a year. Salmon and salmon trout weighing fifteen pounds to twenty pounds or more can be bought in the season for from 2s. to 4s. The flavor of the former is more like the salmon trout than the real salmon. Its color is of a paler hue, and it can surely be recognized as salmon by its taste. The seldi mahi does not exceed five pound or six pound in weight, and is sold fresh at 4d each.

—Land and Water tells about the biggest salmon killed by a fly. It is to be credited to Mr. John Haggart, of Stanley Waters, who landed one of sixty-one pounds.

—It is rather difficult to place a new English sport, and to decide whether it is gunning or fishing. Mr. Buckland proposes to go after Kinner whales, only seventy feet long, which may be found rollicking off the Scotch coast. "It can be easily accomplished," writes Mr. Buckland, "with the aid of a steam yacht and a harpoon gun." This must be pot hunting of the very best character, and quite profitable when one learns that whalebone is worth, say, \$4,000 a ton, and sperm oil is equally high priced. If bagging a whale does not offer sufficient excitement, Mr. Buckland proposes that porpoise killing be made fashionable, as the Fishery Board offers a bonus for their destruction.

### Game Bag and Gun.

#### GAME IN SEASON IN NOVEMBER.

Table with 2 columns: Game and Season. Lists various birds and their seasons, such as Moos Alsece, mackinac, Red Deer, Cariacus virginianus, etc.

"Bay birds" generally, including various species of plover, sandpiper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets, etc., coming under the group *limicola* or Shore Birds.

The frequent alteration of game laws makes such confusion that sportsmen are kept quite in the dark as to when shooting on various kinds of game is permitted. We therefore append the following table for reference:

Table with 4 columns: States, Pinnated Grouse, Ruffed Grouse, Quail, Woodcock. Lists hunting seasons for various states like Ill., Ind., Minn., Wis., Neb., Kans., Maine, Vermont, Massachusetts, Virginia, Kentucky, North Carolina, Georgia, Florida, Texas, Ohio, New York, Auburn, Cayuga.

MAINE—Kingfield.—About twenty-five bears have been killed in Kingfield within a few weeks, making fifty killed the past season.

VERMONT—Ferrisburgh, Oct. 26.—Wild geese are flying south. Ducks plenty in the lake, but very wild. Ruffed grouse quite numerous. Fox hunting at its height. Saw the last woodcock of the season yesterday.

MASSACHUSETTS—Chatham, Oct. 24.—Picked up a few blackthroats and yellow-legs, and some surf snipe, frost birds, etc., every day the past two weeks. On the mainland, just across from Nauset beach, a man came across a passing flock of winter, about 200 in number, and secured fourteen with the first barrel on the ground, and three more when they rose. Saw only two redbreasts during my stay, and there have been none since the 1st of Sept. Gunners here say that the young birds, which always come last, must come, but as it is so late we fear that they may go along the first cold storm without stopping on our coast. Coots are very plenty outside, and black ducks were passing over in small bunches Friday and Saturday last. Reports from Monomoy grounds for same period indicate a corresponding state of affairs. The outlook for further shooting on bay birds here is good. You cannot give away chilled shell here; the gunners cite instances of plover flying a number of hundred yards after being struck by three or four shot (corresponding to Tatham's No. 8), the pellets often going right through, and making too clean a wound to stop them within bounds. There are more winters in Boston markets to-day than for six weeks previous, and are in first-rate condition. Ruffed grouse are a drug, and the poor snarers have hard work to get rid of them.

SALEM, Oct. 20.—Quail very plenty here this fall, but appear to be moving south; saw first teal on 6th; bagged two of them. Saw two snipe and two teal on 19th; bagged them all; saw first geese this evening, about thirty of them moving south-east very high.

SALEM, Oct. 29.—Since last, have been out some with the gun at West Newbury, Newburyport and Hamilton on Miles River. Have found some snipe, though not at all plenty. Got 3 rail last Friday at West Newbury; this is late for these birds. The grounds all through our county have been in better order for fall snipe shooting this season than for some years. A party of three at Plum Island last Tuesday morning shot 53 grass birds. Coots have been numerous in Ipswich Bay, and some good marsh bird shooting has been reported from Rowley. Woodcock are scarce; some partridges around. I have an albino taken at Hamilton lately. I have it pretty straight that one Wm. Dane, of Hamilton, with three Beverly gunners, have been shooting quail in a shameful manner.

NEW YORK—Elfred, Oct. 19.—A number of sportsmen who have been stopping at the house of Mr. J. M. Bradley, Elfred, Sullivan Co., report good fare and excellent sport.

AUBURN, Oct. 27.—Partridges are plenty in the vicinity. One man bagged thirty-six the other day.

CAYUGA, Oct. 29.—Wild geese have been flocking about the lake the past few days.

FRANKLIN, Oct. 29.—Ruffed grouse are more plenty than usual in this section. I kept the cockers busy on good days, and my friends busy devouring grouse pol-pie. Woodcock scarce.

BLOOMINGBURGH, Oct. 29.—Woodcock shooting is good in this part of the county. Last Tuesday bagged 20 woodcock, 4 partridges; on Wednesday, 14 woodcock and 2 partridges; on Thursday, 12 woodcock and 4 partridges. This is the way the shooting holds. Any one wanting some good shooting can find some here.

SYRACUSE, Oct. 26.—A party of sportsmen are preparing for a week's duck hunting on Oneida Lake. They are to be the guests of Capt. Nichols in his steam yacht, Spitfire.

NEW JERSEY—Red Bank, Oct. 24.—Quail crop fair throughout the county.

MARYLAND—Havre de Grace, Oct. 24.—A correspondent writes: "Too calm for marsh duck shooting. Ducks plenty on the flats. Quail crop short in Hartford Co. I had four days' snipe shooting of the finest kind on Speciosa Island. I thank Mr. Hyde for his permission, which I did not get until after I left, for the good time among the jacks. I will not tell you how many I killed, but I wasted over one hundred and fifty shells, and did not miss but every other time. Now you know."

EDITOR FOREST AND STREAM: The ducks have been very backward in making their appearance in our waters this fall, but the shooting is fairly opened now.

We hear of good bags having been made at Carroll's Island, Grace's Quarter, Maxwell's and at some of the points on Back River.

On last Friday a friend and myself killed at Legoes Point, located at the mouth of Bush River, forty-eight ducks, all red heads but eight. Most of these ducks had just arrived, as their craws were filled with small shell-fish and seeds of different kinds—some of the latter of which I send you, and would like to know what variety of plant they come from, as I have never seen anything of the kind during an experience of thirty years' duck shooting.

They are now busy on their favorite food, the Valisneria grass, and in eight or ten days will be in prime condition.

Ducks are said to be more plentiful on the flats at Havre de Grace this season than for many years before. Sink boat shooting begins the next week, which will stir the ducks up and thereby make better shooting at the points on the various rivers.

[ANS.—We have made diligent inquiries of seedsmen and florists, Botanical drug stores, and the Botanical Garden, without satisfaction. The specimen you enclose may be the seed of the ramie, a species of flax cultivated in the northwest; but this is not probable, as the breeding-places of the red head are in subarctic regions—though it is believed that some breed in the Rocky Mountains. More likely, and we feel quite positive in our opinion, the seed is of a species of grass which we have ourselves seen along the Labrador Coast, but we cannot give the botanical name.—ED.]

PENNSYLVANIA—Sharon, Oct. 26.—The best bag that has been made here for several years was made by Frank Davis on the 22d—eleven ruffed grouse.

Hornellsville, Oct. 29.—There has been some fair shooting since my last. Eugene Kennedy, 11 woodcock; Burt Elliott and Dan Gardner each 10. Dan Gardner one day at Silver Lake, 9 ducks; Arnett and Tenney at Loon Lake shot 2 fine loons and a duck never before seen about here—white head and breast, black back and two very long slim feathers for a tail. Some say it is an Old Squaw; I say it is more big injun.

Uniontown, Oct. 25.—A party of sportsmen, consisting of Thomas H. Lewis, John Bierer and E. B. Wood, had remarkably good luck the other day, capturing a number of woodcock, quail, pheasants, etc.

Harrisburgh, Oct. 26.—Wild turkeys are abundant in the valleys which skirt the base of Roberts', Kittatanny and Peters' Mountain, north of the city. Quail and pheasants are in unusual numbers, especially in the valley east of the Susquehanna.

Sunbury, Oct. 26.—Quail afford good sport. Several gunners have made fair bags.

VIRGINIA—Norfolk, Oct. 26.—There are few red foxes in Norfolk county, but the gray ones are nearly as numerous as rabbits. This is the season for the hunt, and, with the excellent runs here, there is the best of opportunity for sport.

KENTUCKY—Stanford, Oct. 24.—Out shooting yesterday. Quails superabundant, but a majority of coveys not more than half-grown. Weather too dry for dogs to work well. Bagged 37.

NORTH CAROLINA—Charleston, S. C., Oct. 24.—A correspondent in the neighborhood of Charleston, S. C., informs us that foxes are plenty, and that capital sport can be had. On four occasions a fox hunt was in order, and each time Reynard was bagged. Deer are also reported in fair numbers, and much sport is anticipated.

GEORGIA—Americus, Oct. 25.—Partridges or quail are very abundant in this county.

FLORIDA.—Owing to the enforcement of the game laws, all kinds of game this season promises to be more than usually abundant.

Enterprise, Oct. 26.—Deer, wild turkeys, snipe, quail, etc., are to be found in great numbers.

TEXAS—Galveston, Oct. 2.—Ducks are plenty, judging from the quantity in the markets; but have to go some distance for shooting, as it is really dangerous to hunt near town on account of the crowd that sullies out to shoot indiscriminately.

OHIO—New England, Oct. 26.—Never within my recollection were quail so plenty in southern Ohio. A favorable winter followed by a most excellent hatching season accounts for it. My father owns a little farm of less than 100 acres on which there are not less than nine beaves, some of them containing two hatchings.

ILLINOIS—Warsaw, Oct. 20.—The region of Lima Lake, some ten miles south of this city, has for many years past been a famous hunting and fishing resort. The location is a part of a vast bottom subject to annual overflow, and possesses dense

forests and numerous long and deep sloughs teeming in fish. During the Fall months camps are established by sportsmen from Keokuk, Peoria, Quincy and other cities and towns. Lesser note. In company with a couple of friends equipped with rods and guns I made a recent trip. We found but few woodcocks, these fox squirrels, a few snipe, two beaves of quail and a few prairie chickens. The small birds were migrating and in places the forest was found to be literally alive with them. We saw several flocks of ducks, mallards, teal, black jacks, but they were flying very high, and seldom offered a shot. Geese and brant are quite numerous on the river. I have noticed at least two hundred of the former in a flock. Pelican are also abundant in places. I noticed one on lake on the river bank with an area of several acres white with those snowy birds. On the west bank of the river wild turkeys are met with quite often, and at several points along the M. and N. R. R. quail shooting promises to be prime. Squirrels are quite numerous also in the timber at several places along that road. The first cold snap will no doubt draw a great many ducks to Lima Lake as a levee is partly constructed to prevent the overflow of the bottoms this season, and the effect will be to contract the water area to the lake and sloughs.

WISCONSIN—Franklin, Oct. 22.—Excellent duck shooting on Muskego Lake since the 10th of Sept., about which the blue winged teal began to arrive in enormous numbers. Fred. Caesar, a resident farmer, bagged one hundred and thirty of those delicious birds in one day, and his brother Louis, on the same day, killed eighty-four. This harvest teal lasted about three or four days. For the last three weeks scarp ducks and redheads have been very abundant, but exceedingly wild and difficult to approach. I bagged 4 red heads, 16 scarpers, 2 mallards and 6 blue winged teal on the 16th inst., which was deemed good sport.

MINNESOTA—St. Paul, Oct. 25.—Have been out after noon just below the city with Reuben Warner. We were after snipe, and failing to find them went into a favorite place for corn for woodcock earlier in the season. We did not expect to find any birds, but thought we would walk over the grounds for "old acquaintance sake." We had hardly started the corn before we up and bagged a bird just out of shot. W. got him up again and bagged him. In doing so he passed out of hick corn into hazel brush, when his dog came to point and up went another bird. This was repeated until eleven birds were raised, ten of which went into our bags.

CALIFORNIA—Santa Monica.—Mr. John Steere of this place killed 2,051 wild ducks during eight months of the year ending the first of October.

Santa Rosa.—Since the 15th of September, one dealer, S. Saery, has shipped to San Francisco, besides supplying local customers, 4,211 quail, 5 deer, 17 hare, 37 moon quail, 11 birds, 24 English snipe, and 3 rabbits.

CANADA—Montreal, Oct. 21.—Deer have been killed in the woods within the past twelve days with the velvet on the horns.

FROM SITTING BULL'S STAMPING GROUND.—The following extract of a private letter to the editor of this paper from former resident of New York and Brooklyn, now located at Fort Walsh, the scene of Sitting Bull's interview with Commissioners, may prove interesting to many of our readers.

My Dear Hallock—Many thanks to you for kind remembrance of my shape of my "Gazetteer." Had I known you were preparing such work I could have assisted you materially as regards this country of the far Northwest. I have been collecting some of the different species of game, and the facilities for reaching it, to send you, as soon as I get time to work it up. My travels have extended far north, 400 miles from here to Ft. Colver, on Bow River, properly the South Saskatchewan, and I have made inquiries as regards game farther north. I am indebted to works I have read in regard to that remote country, also to officers of the mounted police, who have been at Fort Sosskotchewan, twenty miles from Fort Elmouston, on the Sosskotchewan. Last winter I spent at Fort Walsh, in the mountains, and one of your subscribers, an officer, McIlroy by name, who, by the way, is an enthusiastic sportsman, gave me many hints as to hunting, etc. I asked him to send the FOREST AND STREAM what he has done so?

In this locality I find you have many subscribers, and I am sure that you are to receive an invitation to visit this section. I would like to see your old familiar face again, and spend a few weeks of my time in traversing the grand old Rocky Mountains, whose snowy peaks are in full view from here, and take you farther north to Fort Colver and Cavalry, where you would meet with a right royal welcome from the scores of amateur hunters and fishermen. You could find streams where it requires no art to catch the sportive trout, the buffalo and deer, moose, elk, and satisfy any longings you have experienced to hunt such game in abundance. Of smaller game you would find the famous jack-rabbit, cotton tail, biber, and the odorous skunk. Yours very truly,

—We have received from Mr. W. Holberton a hand-book, which he entitles the Sportsman's Note Book. It is in form of a diary, and on its blank pages may be jotted the many incidents of the sportsman's day. A portion of the book is arranged so that a record of pigeon, glass ball and shooting can be kept.

CAMP'S AUTOMATIC CARTRIDGE LOADER.—There are certain points which a sportsman requires about a machine to load cartridges. Such an apparatus should neither be complicated nor cumbersome, and must distribute powder shot with great accuracy. Such adjustment as may be required, when different charges or gauges are wanted, should be easily accomplished. The Camp automatic cartridge loader, though scarcely a year old, has come greatly into use, endorsed by our leading sportsmen. Taking up a small case, easily handled, and working with great expedition, the loader does away with almost all trouble in the preparation of cartridges.

—Land and Water says that, "Gun accidents in 1874 seem to be almost incredible. In 1874 there were 214 of which nineteen were fatal and sixty-one were very cases. In 1875 the total had mounted to 337, of which one was fatal and ninety-seven very severe. Finally the number of accidents amounted to 444, of which seven were absolutely fatal and 102 were very severe. It is evidently on the increase, a fact which sportsmen will well take to heart and endeavor to take more precautions against accidents than they generally do."





A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INFLUENCE IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY:

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 108) FULTON STREET, NEW YORK.  
[POST OFFICE BOX 2332.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 60 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to him, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, NOVEMBER 1, 1877.

To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts. Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for delinquency of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES BALLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

—We have had the pleasure of a call from Mr. Rutherford Stuyvesant, of this city, who has just returned from a successful hunting and fishing trip to Nova Scotia, New Brunswick and Newfoundland. He brings with him, among other trophies, a pair of moose's antlers, remarkable for their symmetry, and a caribou's horns covered with velvet.

In our next number we will publish an exceedingly interesting paper sent us from the Department of the Interior (U. S. Geological and Geographical Survey of the Territories) on the old Inhabitants of a Lost Race, which are found to-day in New Mexico and Arizona.

—Captain A. H. Markham, the second in command under Sir George Narce, was lately in St. Louis. For distinguished services during the late polar expedition, Captain Markham was the recipient of the Royal Geographical Society's gold medal. The gallant captain is still a young man, of fine bearing and physique, and is undoubtedly possessed of untold pluck. The captain was en route for Fort Sill. We are very sure that our numerous army friends in the Indian Territory will gladly welcome Captain Markham.

—Dr. T. C. Ryan has opened his new Russian Baths at No. 18 La Fayette Place, this city. This treatment is growing in public favor, and Dr. Ryan's establishment is a model.

THE WOODRUFF EXPEDITION.—The vessel which had been chartered for this tour proving unfit for the purpose, the managers have contracted with the famous ship builder, John Roach, for a new iron ship. The steamship is to be 325 ft. by 40 ft., and being built expressly for the expedition, will be fitted up with every convenience, and will be especially adapted to cruising in tropical waters. The change necessitates a further delay, and the departure has been deferred till next May. The party will proceed to England; then will cruise the Baltic Sea, returning to Paris for the Exposition. Thence they go to the Mediterranean and the Nile, and after that the course will be reversal of the one originally projected.

SHALL THE NATIONAL RIFLE ASSOCIATION ABDICATE?

IN the early history of the National Rifle Association, the *Army and Navy Journal* assumed to be its organ, from the fact that its most worthy editor was the first President; and the interest he took in the welfare of what was for some years a novel project, made his excellent journal an authority. These exertions, made to place the N. R. A. on a firm basis, must always be recognized, and the association clearly showed their appreciation of Colonel Church's distinguished services by appointing him an honorary director for life, an honor which has never been conferred on any one else.

It does seem, however, as if the *Army and Navy Journal* has lost some of its interest in the N. R. A. for it certainly has permitted some of its contemporaries to surpass it in regard to information on rifle matters.

In the issue of October 27, the *Army and Navy Journal* has made a terrible struggle to come to the front, in relation to the much discussed International Rifle Match, but it is somewhat to be feared that in making this unusual exertion it has entirely overlooked the subject. The *Army and Navy Journal* indulges in a tirade of quite questionable taste, directed against the officers of the N. R. A., for having, in addition to declining to alter the terms of the Centennial Trophy Match, passed a resolution, stating that in their judgment, "it was inexpedient to start another International Match." Such conduct the *Army and Navy Journal* considers so reprehensible that it urges "the abdication" of the powers that be, and the immediate organization of a Representative National Association. In fact, an appeal is made to the rifle shooting public to get up some kind of a substitute association, empowered for the time being to shoot some particular nondescript match or other. This shows what is called the heroic treatment. Admitting, which we by no means do, that the N. R. A. would err in coming to this conclusion, it seems to us somewhat extraordinary that a paper which has plumed itself on being the founder of the N. R. A., should even for a slight difference of opinion be desirous of destroying a flourishing institution, root and branch—one in fact which the whole country looks at to-day with pride.

But unfortunately for our respectable contemporary, to use an expression which its military proclivities will no doubt fully understand, it has gone off at half-cock. In point of fact, the final resolution which the *Army and Navy Journal* thinks so fatal, which has excited its ire, was never passed at all! The record of the Association will show that this offending resolution was tabled, and now peacefully slumbers. As the course of the *Army and Navy Journal* has made an item of news of an action which did not take place, we publish the so-called resolution in our rifle column. Some curiosity has been expressed by the members of the N. R. A. to learn what must be done under the circumstances, as they may be likely to be left out in the cold. We can assure such timid persons that no instance or precedent is known of an association being destroyed by a resolution, which is not a resolution. The writer of the article in the *Army and Navy Journal* may be compared, then, to Samson pulling down the columns of the temple, because the Philistines annoyed him, only that in the present case there is no grievance, and not much of a Samson either.

THE WHOLESALE POACHERS ON THE SACRAMENTO.

SOME comments have been directed toward this Journal, growing out of an article published in our last issue, in which we spoke, in quite plain terms, about the California salmon interest, and how the law was utterly disregarded on the Sacramento River. Newspaper notoriety, of a peculiar kind, is by no means desirable, and we are sometimes chary of giving publicity to the names of individuals supposed to be engaged in breaking the laws. With us, hearsays have been paid no attention to, as we have always required absolute proof before we have been willing to exercise even the disagreeable power of casting odium on law-breakers. We congratulate ourselves on the caution we have exercised. If we have made any mistakes by accusing persons wrongfully of breaking the laws applicable to game or fish, we have yet to hear of such errors on our part.

In the case of Messrs. Emerson, Corville & Co., of Collinsville, there can be no mistake. These cannery men have rented Mr. Booth's former establishment on the Sacramento, and up to the first of August, put up something like 10,000 cases of salmon. Then they pretended to close up their establishment, in order to engage in the innocent pursuit of fruit and vegetable canning. This was nothing more than an ingenious blud. The fishermen in the river, for the most part, are Greeks and Italians, who are quite as indifferent to the laws as certainly are Messrs. Emerson, Corville & Co. The usual price paid these fishermen was twenty-five cents for a salmon of sixteen pounds, then this price was increased. On the first of August it was intimated to the fishermen, in a solemn kind of a way (perhaps with a wink) that, "It was against the law to catch salmon now—but that if they did happen to find any very prime salmon in their nets, that may be thirty cents would not be out of the way for 'em." Of course the Greeks and the Italians found, after this warning, no end of salmon in their nets, and there is no doubt but that from 1,600 to 2,000 salmon were caught every day for a month or more, as the cannery was running night and day (not on fruit or vegetables) through the close season of this year. Of course, how

many cases of salmon Messrs. Emerson, Corville & Co. put up in the close season will never be known. Another little invention used by these people to account for the presence of forty-four white men and as many Chinese at their works was, that all hands were busy in the manufacture of cans for the season of '78.

Now, the nearest place of note to Collinsville, is Antioch. The Fish Commissioners of the State, who are supposed to be gifted at least with common sense, to use the Biblical term "sped to Antioch, seeking for justice." But little of that rare commodity did they find in Antioch. All civil and legislative functions seemed to have been concentrated in one gifted individual there, who combined the varied occupations of Store Keeper, Justice of the Peace, Wharfinger, Postmaster, Express Agent and Telegraphic Operator. Besides these few callings, this person has a keen eye to business. It was the Justice of the Peace who traded with the fishermen. Messrs. Emerson, Corville & Co. gave orders on the postmaster and there was a general dickering all around. Of course, then, this much-employed custodian of the peace and administrative and executive head of the laws could see nothing in the whole matter, and so far the California Fish Commissioners went on their ways out of Antioch, saying: "Lo! there is no justice in the land!"

Now, it is bad enough at any time, or under any circumstances, to break the laws, but to use an English expression, there is something peculiarly "cheeky" in the action of the firm we have, unfortunately, to do with. Exactly at the head of this river is the precise place where the eggs of the salmon have been collected for general distribution all over the country, and where, for the erection of the salmon works, a very large amount of money has been spent. There is not a river in the whole Union, East or West, North or South, where greater injury could be done to the fishery interests of the country.

We are glad to learn that the leading San Francisco papers have taken this matter in hand, and we trust that the good sense of the Californians will be on the side of the Fish Commissioners of the State. As much as anything else, it is to the labors of these very Commissioners that the Sacramento River is fruitful with fish once more; and it seems worse than absurd, that the very river which shows the best results from their care should be exactly the stream where law-breakers should have the power to inflict the greatest injury.

The FOREST AND STREAM never enters into political topics, and though we have been assured that somewhat of demagoguism has been allowed to enter into this topic, as far as relates to an opposition to the Fish Commissioners, we can hardly credit that the intelligence of the Pacific State can ever be on the side of those who willfully shape their conduct in opposition to the general welfare of the community.

AN APOLOGY TO A TRUE POET.

IN an issue of this paper of August 9th, we regret to state that an injustice was done to the most distinguished of our American poets, John G. Whittier. A poem entitled, "The Cry of a Lost Soul," was published by us as "Translated from the Portuguese for FOREST AND STREAM." Struck at once by the elegance of the language and the beauty of the lines, the poem found a ready place in our columns. Quite properly Mr. Whittier's attention was directed toward the poem, of which he is the author; and he has written us a letter which we cheerfully publish. We are only glad to make the *amende honorable*, and to frankly allow that we were imposed upon. There is something even ludicrous at times, when such plagiarisms are laid bare, for instead of "The Cry of a Lost Soul" having been translated from the Portuguese originally into English, the verses were written first by Mr. Whittier, and were then rendered into Portuguese by His Majesty Dom Pedro, Emperor of Brazil. In fact, no more graceful compliment could have been paid to the gentlest and sweetest of our poets:

TO THE EDITOR OF FOREST AND STREAM:

My attention has been called to a poem in thy paper purporting to be a translation from the Portuguese, and to have been written by the Emperor of Brazil. A note appended to it places me under the charge of plagiarism and of falsely claiming the poem as mine.

The poem is mine, and was translated into the Portuguese tongue by the Emperor Dom Pedro, together with other pieces of my own and of Longfellow. I have by me a copy of the translation forwarded to me by the Emperor, in his own handwriting. Be kind enough to set the matter right, and relieve me from a charge I never expected to be brought against me.

Thy friend,  
JOHN G. WHITTIER.  
Amesbury, 10th Mo., 25, 1877.

P. S.—If I remember rightly the pretended translation was an exact copy of my poem, word for word.

HIGH PRICES OF SPORTING GOODS.

THE cost of nearly every material or implement used by sportsmen is much too high, and out of all proportion with most articles that enter into ordinary use or daily consumption. It amounts to a prohibitive tariff to persons of moderate means, and actually discourages thousands from engaging in sports of the field and the stream, whose tastes led directly thereto, and whose desires being thus nipped are perhaps crushed out forever. In fishing rods, reels and tackle the prices are generally beyond all reason, and the same may be said of other branches of trade that cater to the lovers of out-of-door sports.

The old proverb of "penny wise and pound foolish" never applied more directly. It would seem that cupidity argues that it will be better to take dollars from the few than dimes from the many. But prohibitory or exacting rates for goods

curtail the market and decimate the buyers, so that it would seem politic at least on the part of dealers to put their prices so low that purchasers may be attracted and multiplied. The FOREST AND STREAM has proved the direct and substantial benefits of printing a cheap paper. Formerly it published sixteen pages for \$5; now it gives twenty-four pages for \$4, and to clubs of three or more for each subscriber. This is equivalent to eight pages per week for fifty-two weeks in the year, or 416 pages of reading matter per year, for \$1. We feel certain that if dealers would first look to their price tags carefully, then consider the hard times, and after that the wants of sportsmen and the vast army waiting to be supplied, they would think on these things as seriously as we have done and now do, and not only be advised but convinced.

We have been prompted to "break loose" on this subject, just at this moment, because it has been brought to our notice by an intelligent and wealthy citizen of San Francisco, who is now visiting New York. He says that the people of the Pacific coast find it far preferable to purchase their goods direct from England than from Eastern houses, simply because they are vastly cheaper. It is true there will always be a class of buyers of superior guns, rods, and dogs, just as there is of high-priced Jergensen and Baguelin watches. The trade should provide for these; but it should also provide good, serviceable goods at moderate prices for depleted purses. It is especially incumbent upon us here in America to avoid creating an aristocracy of sportsmen, and to prevent even the impression that our sportsmen are an exclusive kid-glove and silk-stocking fraternity. This impression will certainly obtain if exorbitant prices prevent any but wealthy persons from buying sporting goods. Even now the humble bushman or moss-backer who hangs up his cast iron \$5 muzzle-loader after a hard day's work and empty bag, looks with envy upon the man in velvet and cords, who sports his gold repeater and \$350 gun. The moment legitimate field sports are curtailed within the limit and means of a few individuals to the exclusion of the multitudinous masses, we may well bid good-bye to game protection in our wilderness places, and look for tame birds and confiding deer in close preserves, where, as in Great Britain, moneyed men fence them in for their periodical diversion.

We cannot, perhaps, estimate how much the cultivation and dissemination of a proper taste for out-of-door sports depends upon the low prices of sporting goods, and we shall hold our dealers in a measure responsible for failure if they do not mark down their extravagant prices, and give us a rod, reel and line that will catch fish scientifically, or a gun that will not shake to pieces in a year, without making the primary cost so great as to make the fish and game we catch the most expensive luxuries we eat.

CARDS OF REFERENCE FOR SPORTSMEN.—A very good wrinkle is casually referred to by our Washington correspondent in his last week's letter. He says that the Game Protective Association, of Alexandria, Virginia, is furnishing to its members reference cards for their protection while hunting among the farmers. The cards set forth that the bearers are legitimate sportsmen, giving their names and residences, and in every way designating them to be respectable and responsible men out for a day's shooting. The farmers are beginning to take kindly to these gentry, now that they have ascertained that they are really the protectors and propagators of the birds they shoot, and do not deplete on chicken houses and burn rail fences, but respect their property rights. No measure that we can devise or suggest seems better adapted than this to promote the mutual interests of farmers and sportsmen, and we respectfully urge upon our game clubs to adopt it and issue cards of reference to their members. This will make the clubs really responsible for their good behavior in the field, and we have no doubt that any farmer who can prove actual depredations can prosecute and recover from the clubs for any damages caused by its members. The quail, or partridge, is almost the only game bird left among the fields of our middle and Western States, and since the gunners must have sport, it will be well for the farmers to join them in a mutual benefit association. The sportsmen, by protecting the birds and planting colonies here and there, increase their numbers. All they ask in return is the privilege of shooting them in season, while they guarantee to the farmers immunity from depredations of pot-hunters, by making it impossible for any one to shoot over a farm unless he carries his card of reference from his club, which would be even a stronger guarantee than a letter of introduction from a friend. It will be readily seen, if this plan is adopted throughout the whole country, that its effect must be to increase the numerical and moral strength of clubs, and inferentially to promote the laws and multiply the game. Will the other sporting papers indorse these views and aid the work?

YET ANOTHER SPORTSMAN'S JOURNAL.—We offer our congratulations to *The Country*, both generally and particularly; for one day last week a journal with the above caption, devoted to field sports, made its debut. With an exceedingly neat head, a modulation of a setter being flanked right and left by a polo party and a mail coach, *The Country's* outside page is quite attractive. Of course, with the first issue of a paper a great many difficulties, simply of a physical character, have to be overcome. If, then, in this new aspirant to public favor, in the cut of the postulant's clothes alone, there may be nothing which is either novel or startling, still he will doubtless have a fair claim to public attention. The editor, Mr. W. M. Tilston, having assisted for some time in conducting

the FOREST AND STREAM, ought to have a certain amount of experience in such matters. To natural talents, Mr. Tilston adds a great deal of tact and good judgment, with familiarity in such topics as he intends treating. Of course, starting a new paper in these precarious times is always a venture at the best. The initiatory movement in a paper is a good deal like that in a run-away match. The trouble is not as much in the running off as it is the come-to, which is sometimes quite difficult. A great many new journalistic enterprises are started in New York. For one genuine success there are a thousand failures. It behooves us not to philosophize over the causes of ill success. One thing, however, is absolutely positive—that when misfortune comes to a paper it is never the public who are at fault. The history of every paper which has been successful is the story, first, of natural tact or journalistic ability, and afterward of great industry, of wonderful patience, and the surmounting of untold difficulties. Looking casually over a kind of charnel-house publication, which seems to gloat over the misfortunes of newspapers, we find the following: "Sixty-eight newspapers were started in the United States and Canada during September of this year, 1877. Of these, four were dailies, 48 weeklies and ten monthlies, the remainder being semi-weeklies and semi-monthlies. During the same month 59 publications suspended, six of which were dailies, forty-five weeklies, two semi-weeklies, five monthlies and one semi-monthly. The largest number of new publications during the month are credited to New York. The most suspensions occurred in Illinois."

Certainly, during the same period of time, untold businesses of an entirely different kind have been started, whose ultimate success will be quite as problematical as that of the newspapers. We disclaim, however, any inclination to cast a wet blanket over a new journalistic enterprise, even in a peculiar line of business, which we must think to-day is more or less fully covered. There is always room for more, even should the doctors crowd the patients. In conclusion, we may quote a well-known aphorism of Josh Billings:

"Never take the bull by the horns, ying man, but take him by the tale; then yu kan let go when yu want to."

VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.—No. 3.

BY THE EDITOR.

BRETHREN:

November 1, 1877.

Recurring frosts and occasional furies of snow are driving the wild fowl southward; and as they honk overhead or dabble noisily among the wild rice stubble for the grains that now lie strewn upon the surface of the ponds and lakes, I am reminded that a full month has elapsed since I lay *perdu* at eventide and in the early gray of the morning upon one of those "passes" so famous in Wisconsin and Minnesota, waiting in vain for an expected flight of ducks which never came. It was too warm then for wild fowl, and an unusually hot September had scarcely given place to that modified temperature which makes the Indian summer so captivating to the man who values pure air and sunshine more than Diogenes. The only boon the old philosopher asked, you will remember, was that his solicitous friends would stand aside "out of his sunshine!" A month ago a few wild ducks local to the neighborhood, and an occasional bunch of early mallards, were the only flights we saw, and they were few and far between, as are the flights of angels earthward. Few, indeed, fell to our guns. Too high they flew, and when we would watch them afar off like specks against the zenith, the brave Colonel of the Second Minnesota Regiment would say: "Mark up!" like the youth in the poem whom neither old man nor winsome maiden could persuade to stay below. The youth paid no attention to *radin*.<sup>\*</sup> Now, however, the season in the northwest is at its best, and I fear I almost envy the gunners who are counting feathered trophies by the score. Glorious sport they are having in these days. Even now fragrant testimony thereof is ascending to my nostrils in grateful odors from the kitchen (I am writing my letter at home), where a plump brace of canvas-backs, presented by our portly friend, S. H. Turrill, of Chicago, is being artificially prepared by a cook who never fails. I said "a brace," I should say a pair—male and female. Together they erst winged their hopeful flight along the margin where the succulent wild celery grows, and sought their breakfast in banquet halls where dead ducks sat around, lifelike in their attitudes of dissemblance; then, together, they fell lamenting victims to their misplaced confidence; and now, "as beautiful in death as in life" (nay, even more beautiful, *to us*, on closer inspection), they will together dissolve and float away to the inevitable duck-heaven upon clouds of their own steaming juices, flavored by good old port! Verily, it is nice to be a duck!

How easily are our thoughts led off by trifles from the more serious obligations of our lives! My roast duck, and what the boys are now doing with their guns in Wisconsin and Minnesota have nothing to do with my summer fishing for trout, bass, pike and grayling in Michigan, which I proposed to write of when I began this letter. Not to say that there are no ducks in Michigan, by any means, for there are rafts of them on many of the lakes and rivers; but there are no canvas-backs there that I have ever heard of, although they are common in localities in Wisconsin, where the valisneria or wild celery grows. I have never seen the wild celery in Michigan, yet it

\*Brethren: I'm growing too old now for this sort of thing. Forgive me! This is probably the last time I shall ever attempt to perpetrate a joke.

may be there. Its absence will account for the non-appearance of the canvas-backs.

As to the fish. If any angler wishing to visit Northern Michigan will send to the office of the Grand Rapids and Indiana Railroad for one of Mr. J. H. Page's very excellent guide books, and follow the maps and directions therein, I'll guarantee that his lines will be cast in pleasant and profitable places, and that the summer sun will nowhere beam upon him with more benignant and modified temper. The railway company mentioned have provided camp cars for excursion parties, fitted up with sleeping-berths for nine persons, and containing stove and utensils, pantry, closets, tables, ice chest, etc., and in short everything that is necessary for comfortable living, except bedding and dishes, which those chartering cars must provide. This makes camping out a high art. The traveling coach has only to be shifted off on a siding near the locality to be hunted and fished, and it then becomes a house and permanent headquarters. The car is furnished at the surprisingly low rate of \$10 per day, so that the expense to a party of nine is reduced to a minimum. There are scores of excellent localities along the line of the road and its branches and connections which can be thus reached; those that cannot are few. One must wonder why these facilities and advantages are not so eagerly seized as to keep the demand for them constant.

When the revered Joel Penman took his memorable sleigh-ride, he described the party as being composed of three persons. He says: "There was Joel, me, and myself." One cannot too highly commend his endeavor—as it should be the ambition of every man—to make the most of himself. In like manner, there were three of the writer. Nevertheless, and notwithstanding his triple representation, it was impossible for him to occupy the full complement of nine berths which the camp cars tendered him afforded. Even three at a berth could not be thought of. So he determined to forego the luxury and rough it in the old style. Just at this juncture fortune threw in his way a gentleman named A. B. Turner, known throughout Michigan as the senior editor of the Grand Rapids *Eagle*, and an extraordinary "man of letters," having been postmaster for nine years; also as the best bait-angler in the State—not to say that he could not manipulate a fly with the best, but in his speciality he excelled all others. Yes; it was indeed a treat to watch him impose upon the credulity of a sagacious trout! No perplexity of currents or tangle of roots prevented his invariable success. The dexterous management of his grub or squirrel-baited hook was a marvel to new beginners. But I anticipate.

It was with this Waltonian thoroughbred that I determined to cast my lines. A brief interview with him ended in a solemn compact to "go-a-fishing" and divide the spoils. I do not mean by this that we agreed to divide the fish that were spoiled—by no means. It was not our purpose to catch trout in wasteful numbers, but rather to "spare the rod." [The antithesis in the old proverb applies only to truant school-boys.] And so the shades of an early August evening found us in a Woodruff sleeping car, en route for Petoskey, the terminus of the main line of the road, and our first objective point. A branch leads off from Walton Station to Traverse City, on Grand Traverse Bay, twenty-six miles distant. Walton is 115 miles from Petoskey, and the intermediate country is where the angler loves most to dwell. If the stranger will conceive an ovate tract of country interspersed with many lakes, large and small, bounded on the east by the main railroad, on the south by its branch, and on the north and west by the waters of Lake Michigan, of which Grand Traverse Bay is a considerable part; and remember that very many streams cross the railroad and flow into the intermediate lakes and thence into Grand Traverse Bay, he will obtain a fair idea of the "lay of the land" and the fluvial geography of the country and the accessibility of the waters which he wishes to fish. At the same time he must bear in mind that the streams leading to the lakes westward from the railroad run through a wilderness navigable in part by skiffs only with difficulty. If he wishes to rough it in camp, and is provided, he will do well to go in by these streams. In some cases there are primitive stage or wagon routes, and the distances being short the journeys are not tedious. If he wishes to indulge his sense of comfort he will continue by the railroad to Petoskey, and by taking steamboat there he can touch at the various landing places along the Bay; and from these points little excursion steamers ply through the several chains of inland lakes to the mouths of the various streams that he has already crossed at the railroad. These streams contain trout, grayling, or pike, and occasionally all three. As there are lodging houses throughout, more or less comfortable, one can scarcely imagine an excursion that can be made with more facility or comfort by either ladies or gentlemen. It is not necessary to depend on the lodging-houses either. Tents and camp stuff can be carried on the steamboats, and sites may be located where there is no brush to be cleared out, and where milk, eggs, vegetables and fresh bread, or any other requisite can be obtained at shortest notice. Four days is sufficient to traverse the whole country if one is making a hasty tour. Steam or sailing yachts can enter the lakes either by Charlevoix or Cheboygan, and secure a range and variety of scenery that will scarcely find its equal. Cheboygan is on the Lake Huron side, and Charlevoix on the Lake Michigan side. The features of the two routes are very different, and one can hardly determine which has the greatest charms. The one is accessible to the other, via the Strait of Mackinaw.

Emmett County is the northernmost part of the peninsula. It is almost a circular island, Petoskey is on its periphery, and

a steamer can start from there and cruise along its shore north-west, west, and northeast to Mackinaw; through the strait east and southwest to Cheboygan; and thence by the chain of lakes south and southwest back to within six miles of Petoskey, a distance which is now completed by stage through a dense wilderness. This is one of the advertised routes of travel, and most delightful it is.

Now let me go back to Walton Junction, where the railroad branch makes off to Traverse City. I'm determined to describe this country so that strangers will no longer be puzzled. A map will assist. At Walton one can get good board, and by driving three miles south to the famous Manistee River, or getting the railroad people to drop him off, he can enjoy the new sensation of catching grayling. Parties intending a long stay had better come prepared to camp. The river is navigable, and boats are required. The current runs swiftly—about four miles an hour. The Manistee is one of the best grayling streams in Michigan. It empties into Lake Michigan some seventy miles to the south-east. Four miles north of Walton, journeying toward Petoskey, is Pife Lake, a village of 300 people situated on the shore of Pife Lake, which contains bass and pike. Six miles north is the south branch of the Boardman River, containing trout. At this point fishing must be done chiefly by wading, on account of the brush. The river runs south, then east and then north, for forty miles, and empties into Grand Traverse Bay at Traverse City. Good roads run to these streams. Board, \$1.50 to \$2 per day. It will be seen that Pife Lake is good headquarters for the angler, affording at least four varieties of excellent game fish. Thirteen miles further the railroad crosses the north branch of the Boardman at Kalkaska, a village of 300 people located on that stream; and yet three miles further on it crosses Rapid River, by which a boat might be worked through to Elk Lake and thence to Grand Traverse Bay, some forty miles distant. I ascended the Rapid River for eight miles from its mouth near Elk Lake, and found it much encumbered with fallen trees and brush. After leaving Kalkaska the route of the railroad is nearly parallel with what is known as the chain of Intermediate Lakes (intermediate between the railroad and the bay), and within a few miles of the headwaters of the Intermediate, Grass, Jordan, Deer and Boyne Rivers, all most excellent trout streams; but the intervening country is a wilderness and impracticable. Besides, these streams can be easily reached from their mouths in a method which I have already designated. Thirteen miles north of Kalkaska is the town of Mancelona. A stage runs from here to York Lake and Spencer Creek, distance twelve miles. Torch Lake communicates with Elk Lake. A steamer can enter Torch Lake from Lake Michigan, and, passing through connecting waters, come out at Lake Michigan again at Elk Rapids. There is a good hotel at Mancelona called the Mancelona House, kept by Perry Andrus, which accommodates forty guests at \$2 per day and \$7 per week. [One inducement to visit Michigan is its very reasonable hotel charges.] Thirty-eight miles north of Kalkaska, and twenty-five from Mancelona, is Boyne Falls Station; from this place there is a stage line of five miles to Pine Lake, through which there is communication by steamer via Charlevoix into Lake Michigan again. The Boyne River is a fine trout and grayling stream, and some few anglers fish it down through the woods into Pine Lake; but its upper two and a half miles is a tangle of forest. Deer Lake is two and one-half miles from Boyne Falls. It affords good bass fishing. Into Pine Lake flows the celebrated Jordan River, a noble trout stream, with a few grayling in it; and also Horton Creek, containing many trout. Deer River joins the Jordan a mile or so above its mouth. It contains trout and grayling. Pine Lake itself contains pike, bass and muscalonge. It is sixteen miles long, of which its two branches are each nine miles. Thence to Petoskey the railroad traverses a wilderness; but there are several cross-country roads by which Torch Lake, Intermediate Lake and other points can be reached.

We come now to Petoskey, where I shall leave the reader. In my next letter we will make the grand tour together and learn what virtue there is in squirrel meat for bait.

HALLOCK.

**A COLONY FOR FLORIDA.**—There are really but three papers in New York which seem to take any interest in the most lovely country in the Union, which is Florida, and these three journals are the *Florida New Yorker*, the *Sun* and the *Forest and Stream*. From the *Sun* we learn that,

"About sixty artisans, clerks and small merchants of this city met on the 26th of this month to receive the report of a committee on the purchase of land for the St. John's Co-operative Colony of Florida. It was reported that a tract of ten thousand acres of land on the St. John's River, twenty miles from Palatka, had been offered to the colony for \$1 an acre.

The first idea, which was conceived by a couple of months ago, was to engage fifty young men, married or unmarried, to organize a colony on the co-operative plan, and buy about two thousand acres wherever they could get it cheapest in Florida, on the condition of paying part cash only. The organizers were surprised and gratified to find offers to join the colony accumulating. The list numbers over one hundred, and the officers hope to close the books with two hundred and fifty names, which will be sufficient to settle the ten thousand acres of land it is proposed to buy. A representative of the colony is in Florida, and another, Mr. Hines, will leave shortly to institute a search into the title of the land. It is embraced in an old Spanish grant."

GAME PROTECTION.

—The meeting of Virginia Fish and Game Protective Association at Richmond, last evening, was of unusual interest, and we shall publish a full report of it from our special correspondent.

The following communication, which has been received from a Syracuse correspondent, we cheerfully publish:

I have noticed lately in your most excellent paper several articles reflecting rather severely upon the sportsmen of Onondaga County.

We are not so inactive as asserted in the articles you have published. We are doing all we can in a quiet way, and without advertising what we propose to do, and so warn the enemy. As yet we have confined our efforts to one thing and one locality, and that is to stop the net fishing on Onondaga Lake. We do not as yet propose to arrest any one, but simply find the nets where set and destroy them. We have, during the last two months, found, raised and destroyed seven gill nets in our lake.

Our lake is so deep that other than seine nets cannot be used to advantage. The nets destroyed were found set in from thirty to sixty feet of water. We have fine fishing in the lake, especially for black bass, which run large, some having been caught this season weighing over five pounds and many over four pounds.

We know that it is notorious that net fishing is largely carried on there, but we cannot very well do anything with them, for this reason: The boundary line between Onondaga and Oswego Counties along Onondaga Lake is low water mark along the south shore of the lake, so that the lake lies entirely in Oswego County. Our law makers at Albany have enacted that in order to punish in Onondaga County a net fisherman in Onondaga Lake, it must be proven that the net was set and the law broken within 200 yards of the line of Onondaga County.

On this account we are practically powerless, for we have found after a protracted and energetic effort that we have been unable to get proof to comply with the law. A year ago we arrested thirteen men, and had them indicted in this county, but they have never been tried, for the above reason.

**VIRGINIA.**—Complaints are made by the Richmond *Whig* and the Norfolk *Public Ledger* that the game laws prohibiting the capture or sale of partridges are openly set at defiance by restaurant keepers in those cities.

—A correspondent writing from Salem, Oct. 20, says:

"The law now prohibits the killing of quail in this State until the first of November, yet hundreds of them are now killed. What do you think of a country where quails are killed and marketed from September till March of every year? I know of several parties who make a business of buying game in the close season. One person has been running over our road buying game from St. Louis east, carrying from fifty to seventy-five dozen quails into St. Louis every trip. The law is now off in Missouri, and our game dealers are doing a lively business; they have men out hunting every day. It is no uncommon thing to see fifty or sixty quails lying in the backroom of a game buyer's shop in the close season. What can we do? The law-abiding citizens are, I think, afraid to have the law enforced, for fear of having their property destroyed. I think it is the game buyers who are to blame for this disregard of the close season. By offering big prices they induce pothunters to shoot at any season of the year. We will have to stop the marketing of small game in this State at all seasons of the year, or the cheerful whistle of Bob White will be a thing of the past.

J. B.

SCARCITY OF QUAIL IN CONN.

BRANFORD, Conn., October 19, 1877.

EDITOR FOREST AND STREAM:

Allow me to call your attention to a subject, which, in this vicinity, is sadly puzzling our sportsmen, viz.: the scarcity of quail.

If there had been but few birds in the spring, or if there had been insufficient food, the present lack of birds would readily admit of explanation. But neither of these conditions can stand as causes, for it is the testimony of the farmers that quail were plenty in the spring. Again, more grain has been harvested in this section this summer than for many years previous. In fact, all the conditions appeared favorable for the growth and increase of quail, and seemed to warrant the highest expectations of our sportsmen. Therefore, the almost unprecedented scarcity of birds this fall, is a surprise as well as a sore disappointment. Sportsmen have been active in their endeavors to account for this anomaly, and as a consequence, many theories are in circulation. But none of those that I have heard fulfill all the conditions.

The most plausible of these suppositions, and the one that is fast gaining credence, assumes Paris green as the agent by which the quail have been destroyed. This explanation appears all the more probable because, until this year, the poison has been but very little used. If Paris green is the cause of the scarcity of quail in this section of the country, it must have exerted a greater harm where it has been more extensively used.

The subject is worthy of investigation, as it may involve the total annihilation of the quail. Any information which you may be able to afford will be awaited with interest, and received with gratitude.

A. E. HAMMAR.

[We cannot, for a moment, admit the plausibility of the Paris green theory. There is no reason for supposing that quail are injured by the poison, which has been extensively used in all sections of the country for some years past. Quail have, this fall, been scarce all through Connecticut, but the true reason, we take it, is the fact that they are still "running," and have not yet settled down onto their fall feeding grounds; and besides this, owing to the abundance of their food, they are much scattered. It is always a hard matter to find quail in October, and we think that sportsmen in general will bear us out when we say that in this latitude, the best shooting for quail does not come until the weather is quite cold. The running of quail is an interesting subject, which our correspondent will find treated at some length in "Hallock's Gazetteer" under the head, "Quail."—Ed.]

The Rifle.

SHALL WE HAVE MORE RIFLE RANGES?

The National Rifle Association proposes that in the annual army appropriation a fund shall be given for encouraging and aiding rifle practice in the uniformed militia of various States and in the army. The N. R. A. advocates the establishment of rifle ranges in all the States, and that prizes be awarded, and that the Government provide means for the same. This demand, if we can call it such, has every claim to the respectful attention of our legislators. It seems, as it were, to be a logical sequence. Since it has been shown that the militia of such States as California, New York, Connecticut, New Jersey and Massachusetts have exhibited wonderful proficiency as marksmen, why should not the citizen soldiers from all other portions of the Union be equally skilful with their arms? It is practice on the rifle range, the systematic philosophical study of the arm, which, perfecting the individual soldier, has given effectiveness to the whole. It would be waste of common sense to argue this matter.

That steadiness under fire, endurance and obedience can only be acquired by drill and discipline we readily acknowledge, nevertheless the single capabilities of the men, as adding to the effective power of the whole, seems to have been too long neglected. As education has increased, the better appreciation of the soldier has permitted the ordnance officer to place in the hands of his men arms of greater precision. The mechanical facilities of the arm, such as rapidity in loading, can be readily acquired in the barrack-room, but the true efficiency of the rifle can never approach to its maximum save by practice on the rifle range. When one thinks of it, the pomp and circumstance of war have been wonderfully sobered down of late. Men for military service are no longer dressed finely, but comfortable. As to arms, such ornamentation as was once lavished on them would be considered to-day as in exactly inverse ratio to their usefulness. The dress-parade condition of the soldier has then somewhat passed away. The heroic element in war has been superseded by a something which, prosaically enough, seems to partake of a mathematical calculation. A great General, even a Moltke, when he reads over the terrible list of the Germans killed in the Franco-Prussian war, some 60,000, does his best to find out how many shots the French poured into his lines. Certainly to a cartridge, that Prussian knows how many his own men expended on the French. In such grim books as he keeps, he credits his cartridges, and debits his dead foes. With the thorough study of small arms averages of destruction are brought down as close as are life insurance calculations. It is not that so many shots ought to, but they must, in modern warfare, strike exactly so many men or horses. The time of improbabilities has passed away. Creedmoor and Wimbledon are the schools where all the laws of military destruction, at least in small arms, are definitely determined. If then the efficiency of both our regular troops and of our militia is to be brought up to its maximum, it is only by means of the rifle range that it can be done.

**IMPORTANT RESOLUTION OF THE NATIONAL RIFLE ASSOCIATION.**—At a meeting of the Executive Committee National Rifle Association, held Oct. 30, 1877, the article in *Army and Navy Journal*, of 27th inst., was referred to, and the following unananimously adopted:

Resolved, That the Committee have observed with astonishment and profound regret the attack upon the National Rifle Association as a National Institution, which is contained in the *Army and Navy Journal* of 27th inst.

Resolved, That the matter be referred to a committee of three—of whom the President shall be one—to decide what action is proper to be taken under the circumstances, and to report at the next meeting of the Board of Directors.

Gen. Wylie and Col. Wingate were appointed as remaining members of the committee.

[We beg to state that our comments on the article in the *Army and Navy Journal* were written by us some days before the action of the National Rifle Association.]

**MASSACHUSETTS.**—Boston, Oct. 24.—At the annual target shooting of the State militia, at South Framingham, yesterday, the Charleston Cadets won the first prize and the Roxbury City Guard the second.

**MASSACHUSETTS.**—At the range of the Massachusetts Rifle Association, Walnut Hill, on the 25th, Match No. 2 upon the fall programme was shot. The distance fired was 200 and 300 yards, seven rounds to each man; best possible figures, 70. The first prizes were the Peabody-Martin breech-loading Creedmoor rifle. The prizes are given when three-quarters of their value has been paid in. The following are the best scores:

	200 yds.	300 yds.	Total
D Kirkwood.....	25	27	52
C H De Rochester.....	30	25	55

Match No. 3 was also shot. The distances were 300, 600 and 1,000 yards, ten rounds each man, standing at 300 yards, and any position at the other two distances. The prizes were a bronze medal of the National Rifle Association and a gold and a silver medal of the Massachusetts Rifle Association. There will be five shootings, and the best three average consecutive scores take the prizes. We give the leading score:

	300 yds.	600 yds.	1,000 yds.	Total
W H Jackson.....	39	49	47	135

**CREEDMOOR.**—On Saturday last the day was rainy and cold, and for a concluding match, perhaps the wind-up of the season, the attendance was not large. The Remington match, for \$300 gold, was unfortunately again postponed. The contest was between members of the Amateur Club for the bronze medal. The following are the scores:

	F Lamb, Jr.	W M Farrow.
5 3 3 5 4 5 5 5 4 5 5 4—67	2 2 5 3 5 5 5 4 5 4 5 5 0—	
3 4 5 5 5 5 5 5 5 5 5 5—68	4 0 5 5 4 5 4 5 5 4 5 5 3—	
4 5 5 5 5 5 5 4 5 5 5 5—68	5 5 4 5 5 5 5 5 5 5 5 5 5—	
Total.....	238	Total.....

FOREST AND STREAM.

Table with 2 columns: N Washburn, L I Hepburn. Rows show scores for various events like 4 5 5 4 5 5 5 5 5 5 0-68, etc.

C. Barron, 29; Major Post, 25. Lient. Col. Frank Wristley failed to qualify. Gen. Shaler and Col. Sandford had previously won the trophies.

New York-Rochester.—The second contest between the members of the Amateur Rifle Club for the bronze medal of the National Rifle Association and the aneroid barometer given by the club, came off on the 24th of October at the range. The prizes were won at the first contest by R. B. Yates, who at that time made the finest score that has ever been made on the range—94 out of a possible 100. The shooting was not perhaps quite up to the average. Mr. Roda was the winner. The following is the score:

Table with 2 columns: 800 yds., 1,000 yds. Rows list names like A Roda, C E Rider, W S Smith, etc., with their scores.

Rochester.—On the 25th the prize of \$100 for superior marksmanship by teams in the companies of the Seventh Division, N. Y. S. N. G., was won by Co. E, of the Fifty-fourth Regiment; the second prize was awarded to Co. C, 110th battalion.

THE HELVETIA AND ZETTLER MATCH.—This event took place on Monday last. On the 1st of October the Helvetias had beaten the Zettlers: but the latter not being satisfied, determined in the most plucky way once more to tempt the fortunes of war. Notwithstanding some fine shooting on the part of the Zettlers, Helvetia was again the conqueror. The match took place at the Schutzen Park. We append the totals:

Table with 2 columns: HELVETIA, ZETTLER. Rows list names like Philip Klein, Fred Klein, A G Hellwig, etc., with their scores.

ZETTLER RIFLE GALLERY.—B. Zettler, shooting master of the Zettler Rifle Club, offered a gold medal on Friday evening, Oct. 25, to any member making the best score; Creedmoor target reduced for distance; one trial; entrance free; possible 50. The following are the scores:

Table with 2 columns: Names, Scores. Rows list names like C. Johnson, W B Engel, D L Beck, etc., with their scores.

THE YORKVILLE RIFLE CLUB.—This club met on the 27th of last month, and the following business was transacted: A constitution and by-laws were adopted. Mr. George McLeish was elected Vice-President. Messrs. J. J. Kelly, W. W. Dodge and A. Smart were elected on the Executive Committee. The Executive Committee met, and arranged conditions and matches for November 6, 1877. Competitions for Tuesday, Nov. 6, 1877, Berriens vs. Long Island, at 11 A. M.

First competition for a belt revolver, presented by Mr. J. L. Paulding. Open to all members Y. R. C.; weapon, any rifle within the rules; distance, 200 yards; rounds, five, and two sighting shots allowed. To be won three times before becoming personal property of winner (not necessarily consecutive). Highest aggregate score to take 15 per cent. of entrance money, second, 10 per cent. Entrance fee, ten cents, at 1:30 P. M. First competition for the gold champion badge of the club, open only to active members Y. R. C.; to be shot for monthly. Winner to hold until next competition; weapon, any rifle within the rules; distance, 200 yards; rounds, fifteen, and two sighting shots allowed. Entrance fee twenty-five cents, 15 per cent. to highest score and 10 per cent. to second.

—The Newark Amateur Rifle Club shot a match with the South Orange Amateur Rifle Association on the range of the latter, at South Orange, on the 25th of last month. The match was a very close one, the Newark Club winning by only two points. At the conclusion of the match the South Orange Club were entertained by the gentlemen from Newark. The following is the score:

Table with 2 columns: Names, Scores. Rows list names like Wm. C. Gardner, A S Fowle, John Bayer, etc., with their scores.

Robert A. Halliday, captain of team, not shooting. C N Gardner, 5 3 4 4 4 4 4 4 4 4 5-42. D J Terrill, 3 4 5 4 4 4 4 4 4 4 4-40. M Crowell, 5 4 3 5 4 3 4 4 4 4 4-41. W Decker, 5 4 4 4 3 4 3 4 3 4 4-40. Frank Bowdler, 3 4 4 4 4 4 4 4 4 4 4-39-392.

Considering that the Newark Club has only been in existence some three months, the record is an excellent one.

PRIZE SHOOTING IN THE SCHUETZEN PARK, UNION HILL.—The Zettler Rifle Club, after their match with the Helvetias on Monday, Oct. 24, had a match among themselves with ten prizes. The following is the score:

Table with 2 columns: Names, Scores. Rows list names like D Miller, C Zettler, J Mauz, etc., with their scores.

C. Zettler and J. Mauz divided their two prizes, as did Messrs. Bird and Rascheus. S. O. V.

LOUISIANA—New Orleans, Oct. 24.—The Lillenthal trophy was shot for the fifth time at Prognon. The terms upon which this trophy was presented require it to be shot for once each month until it is won three times, when it becomes the private property of the triple victor. So far it has been won by Messrs. Renand, Arms, Manning, Eyrich; and on the 24th by Mr. Glynn. The following is the best score: Distances, 800, 900 and 1,000 yards.—Glynn, 66, 69, 63, total 195.

TRIAL OF THE WINCHESTER REPEATING SPORTING RIFLE.

So many questions are put to us in regard to the excellence of various arms, that long ago we declined giving an opinion. In the first place, it would be impossible for us to handle the infinite variety of weapons which come under our notice; and, secondly, we claim no infallibility of judgment. A good many models and plans for arms have been forwarded to us, and in these cases we have been sometimes willing, as far as lay in our power, to judge of their practical usefulness. When we consider the amount of responsibility we must assume in passing judgment on these intricate subjects, and how the lives of our readers may be endangered, it can readily be understood why we are chary of deciding in an *ex cathedra* way, in regard to the merits of any arm, especially when the safety of a gun or rifle is questioned.

Some time ago, as may be seen by the correspondence which we publish, a gentleman in Michigan submitted to our judgment the delicate question of the safety of a rifle made by the Winchester Repeating Arms Company (model of 1876). Though we felt perfectly satisfied of the excellence of the arm, we preferred addressing the company directly on the subject. With this preface the subjoined correspondence explains itself:

October 20, 1877. CHARLES HALLOCK, ESQ.: My Dear Sir—Being aware of the existence of your very necessary rifle, to express no opinion in the FOREST AND STREAM concerning the relative merits of different arms, it is with much hesitation that I venture to address you with the request that if you should not deem it improper to do so, and should I not presume too far as a stranger in asking your advice, you would do me the very great kindness to give me your opinion by letter as to the safety of the new model (Centennial 1876) Winchester repeating sporting rifle. I have recently purchased one of these rifles (using 75 grain. of powder and 350 of lead), and while much pleased with it in other respects, am absolutely afraid of it by reason of what seems to me, after careful examination, the weakness of the breech fastening. I should judge that the force of the explosion must be resisted mainly by certain small pins, the breaking of one of which would involve certain and serious injury to the person using the arm. It is proper for me to add that I ask this information solely for my own personal benefit and safety, and should not feel at liberty to communicate your opinion to any other person to the injury of the manufacturer. Yours truly, WILSON H. GRAY.

NEW HAVEN, CONN., Oct. 27, 1877.

CHARLES HALLOCK, ESQ.: Dear Sir—Your letter of 23d instant is at hand enclosing letter from W. H. Gray, in which he expresses his apprehension of the want of strength to resist the force of the explosion, as upon his examination it appears the force of the explosion was resisted mainly by certain small pins. As we had never submitted this arm (model of 1876) to any trial to this end, we had no data upon which we could express a decided opinion, and decided to submit one of them to a thorough trial with increased charges up to the bursting point. This resulted—on the seventh trial, when fired with a charge of 203 grains of United States Government powder and six Martini bullets of 480 grains each, total, 2,853 grains—in bending the breech pin, blowing out the side plates, etc., leaving the links and small pins, where Mr. Gray apprehended danger, intact and in perfect order. We trust this demonstration will serve to give your correspondent more confidence than the opinion of any man. Yours, very truly, WINCHESTER REPEATING ARMS CO., O. F. WINCHESTER, President.

P. S.—You will please note that the question for us to answer was the capacity of the links and the pins which take the full force of the explosion to resist that power. We commenced the trial by removing one of the links, or one-half of the strength, and fired twenty charges with only one link or half the resisting power. Then we restored the missing link and proceeded with the test as described, using in the final trial a heavier bullet, weighing 480 grains. There is no possible mechanism that gives such powerful resistance to the recoil, or the breaking force of the charge, the links being, when the gun is in position to be fired, in a direct line with the bore of the barrel and coincident with the centre. We shall be pleased to reply to any specific inquiries of this kind, and in all such are capable of demonstration by experiments we have no doubt of being able to give equally satisfactory replies. This gun was taken from stock without any selection or attempt to discriminate. Respectfully, O. F. WINCHESTER, Pres.

WINCHESTER RIFLE MODEL 1876, TESTED FOR ENDURANCE. First Test. Fired twenty times with the left link removed—only one used. Charge, the regular cartridge. Worked well. Second. Fired with a charge of 165 grains of Government powder and two bullets. Weight of lead 700 grains. Worked well. Third. Fired with a charge of 165 grains of same powder and three bullets. Weight of lead, 1,050 grains. Worked well. Fourth. Fired with a charge of 203 grains of same powder and four bullets. Weight of lead, 1,400 grains. Worked well. Fifth. Fired with a charge of 203 grains of same powder and five bullets. Weight, 1,750 grains of lead. Worked well. Sixth. Fired with a charge of 203 grains of powder and six bullets. Weight of lead, 2,100 grains. Breech pin slightly bent. Arm working stiff. Seventh. Fired with a charge of 203 grains of same powder and six Martini bullets of 480 grains each. Weight, 2,850 grains. This charge bent the breech-pin, blew out the side plates, split the frame and otherwise disabled the arm. RICHARD F. HARRIS, in charge of trial.

Personally appeared, Richard F. Hare, signer of the foregoing statement, who acknowledged the same to be true. DAVID H. VEADER, Notary Public, NEW HAVEN, Conn., Oct. 27, 1877.

CHARLES HALLOCK, ESQ.: My Dear Sir—I omitted in my letter of Saturday, to explain why the gun gave out on the seventh trial. It was due to the weakness of the cartridge shell, which is only made and required to stand a charge of 75 grains of powder and 350 of lead; a slight increase of weight would have made it sufficient to stand a still larger charge of powder. In the seventh trial the shell was burst into fragments, and the escape of gas from the breech of the gun did all the mischief. These shells can be made so strong as to resist any amount of powder and ball, but at an entirely uncalculated cost; the gun would stand the charge.

Respectfully yours, O. F. WINCHESTER, President Winchester Rep. Arms Co.

An event which attracted a great deal of attention was "the skirmishers match," the prize being a gold medal, presented by General H. Durvea. The method of firing is as follows:

The competitors were formed in squads, opposite three targets, at 500 yards distance, and one competitor took his place at each of the three firing points. At a blast from a whistle by the superintendent each man advanced toward the target until a second blast, when they took any position agreeable to them, and fired. This was repeated by the several squads until all had fired the requisite number of times. There were very many misses, as very few had ever practiced that mode of firing. The scores were as follows:

Table with 2 columns: Names, Scores. Rows list names like C H Eagle, N D Ward, E H Sanford, etc., with their scores.

At the conclusion of this contest the first competition for the "Wingate" rifle was held at the "running deer target." The conditions differed slightly from former matches at the deer, only one shot being allowed during the transit of the animal. Repeating rifles were thus placed on an equality with "single loaders." The distance covered was 100 yards, and each competitor was allowed four runs. The scores were as follows:

Table with 2 columns: Names, Scores. Rows list names like George Rover, W M Farrow, W Robertson, etc., with their scores.

The Irish-American Club badge was shot for at 300 and 600 yards distance, and won by Dr. M. M. Malby, upon the score of 75 out of a possible 100 points. The Seventh Regiment Rifle Club shot for the "shells" and a Remington rifle. Private C. H. Eagle won the former trophy upon the score of 21 out of a possible 25 points at 500 yards distance, and Corp. J. W. Gardner carried off the rifle upon the score of 45 out of an attainable 50 at the same distance.

GRAND TRUNK RIFLE ASSOCIATION.—The first annual match took place at Montreal, six teams entering. The following are the winning figures. Distance, 400 and 500 yards; teams of five, seven shots at each range.

Table with 4 columns: TEAM PRIZES, 400 yds., 500 yds., Total. Rows list names like 1st or Prince of W. Rifles, Victoria Rifles, etc., with their scores.

Private A. Ross won the first prize with 65, and the total of the winning team was 271.

CONNECTICUT—Willow Brook Range, Oct. 27.—Semi-monthly shoot. Afternoon very favorable for good shooting. There was considerable practice at the long ranges, but no regular match. There were five entries for the championship badge at 500 yards, and it was won for the second time by C. Smith, of Hartford, with a score of 49 out of 50. Several members have won it twice. Mr. Smith used the "Old Reliable" Sharp's rifle.

—The resolution of the N. R. A. which was not a resolution, the same having not been passed: "That, while for several reasons it may be for the interest of rifle shooting that the match for the championship should be reduced to contests between an American team and one representing the United Kingdom of Great Britain and Ireland, yet, that this association deems it inexpedient that a match other than that for the Centennial Trophy should be instituted by them for that purpose."

THE NEVADA SILVER BADGE.—On Monday last, Company I, Seventh Regiment, held its annual contest for the "Nevada" badge at Creedmoor. The conditions governing the match make it necessary for each company contesting to include thirty-five members, and the company making the greatest aggregate score is entitled to hold the trophy for one year. The distances covered were 200 and 500 yards, five shots at each range. Following is the record, the highest attainable individual score being fifty points, and the highest possible aggregate 1,750: F. Harper, 34; G. F. Merchant, 33; C. J. Byrd, 33; J. D. Condit, 31; F. P. Marshall, 31; S. A. Lathrop, 29; D. Chauncey, Jr., 29; E. R. Young, 29; W. F. Englis, 28; S. J. Gorman, 27; G. W. Chauncey, 27; W. M. Bangs, 27; J. S. Klous, 27; E. E. Sage, 27; F. S. Bangs, 26; J. T. Pyle, 25; Lieut. W. G. D. Mimick, 25; J. W. Candee, 25; J. C. Ogden, 24; G. H. Gould, 24; J. L. Carr, 23; J. W. Kilbreth, 23; O. Wiswall, 22; J. Williams, 22; W. N. Vail, 22; C. F. Sheldon, 22; W. W. Falcon, 21; J. T. Harper, 20; S. C. Martin, 20; F. C. Thomas, 18; L. H. Berrian, 17; Capt. W. C. Casey, 16; H. Pell, 13; L. H. Schultz, 6; total, 847. The badge will therefore go to Company A, Forty-eighth Regiment, Oswego, which made 1,171 points in the contest on Sept. 1 last. The Seventh Regiment also shot for the "California" badge, at 200, 500 and 600 yards; five shots at each distance. Sergt. Daniel Chauncey, Jr., of Company I, was the winner upon the remarkable score of 65 out of a possible 75 points. In the contest for the "Anderson's" diamond badge, which took place at 200 and 300 yards, off hand, 10 shots at each distance, Capt. Charles F. Robbins was the successful competitor upon the score of 72 out of an attainable 100 points. Major-Gen. Shaler and four members of his staff, who had not previously qualified for "Marksmen's" badges, shot for the trophies yesterday. The winners were as follows: Col. H. A. Gildersleeve, 36; Col. J.

**Yachting and Boating.**

HIGH WATER FOR THE WEEK.

Date.	Boston.		New York.		Charleston.	
	H.	M.	H.	M.	H.	M.
Nov. 2.....	8	26	5	24	4	40
Nov. 3.....	9	19	6	16	5	33
Nov. 4.....	10	13	7	04	6	21
Nov. 5.....	11	05	7	51	7	07
Nov. 6.....	11	56	8	39	7	57
Nov. 7.....	0	29	9	28	8	43
Nov. 8.....	1	18	10	18	9	30
Nov. 9.....	2	08	11	09	10	20

**BOATS AND YACHT-BUILDING.**

7th Paper.

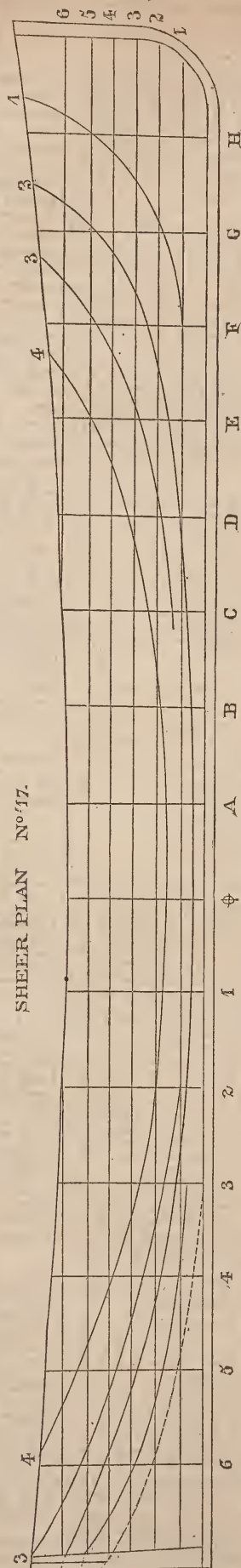
BY NAUTICUS.

In constructing full modeled boats and yachts, either a model or drawing of the proposed vessel is requisite. Boat drawing is a simple mechanical operation, soon learned, and requiring but few tools; indeed, it is impossible to construct a full modeled boat accurately without a drawing. From the drawing we obtain measurements that enable us to construct a "model" if one is wanted. Models, however, are of little use, except to look at. On this subject allow me to quote "Marett," an English author. He says:

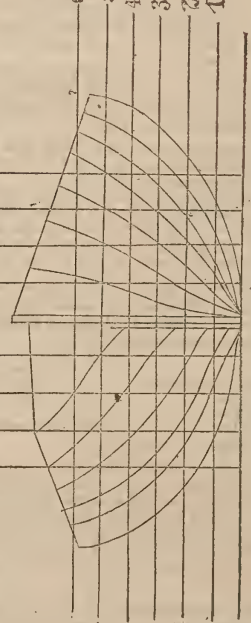
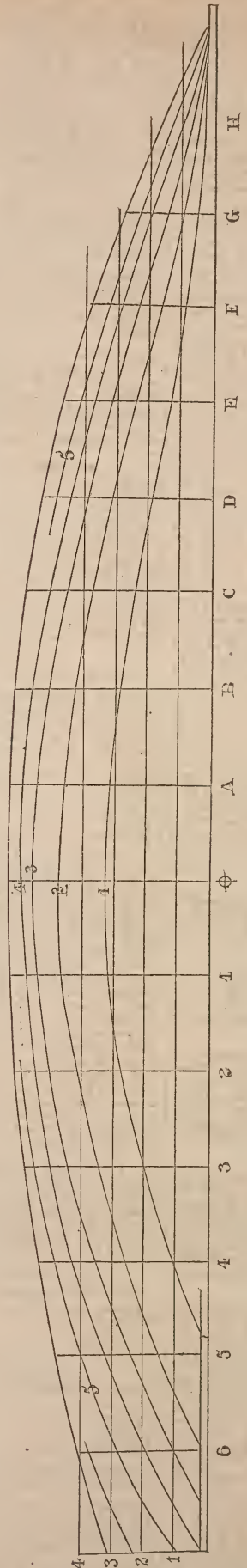
"Some there are who have a collection of nothing but models, which serve in the place of drawings. Now this system of model-making has had a most pernicious influence in yacht building; no correct idea can be formed of the properties or qualities of a vessel from a model, unless it is made from the drawing, and if so, then it is useless, except as a toy. To imagine that the nice adjustments of centre of gravity, areas or displacements will be obtained from a model is ridiculous."

The drawing is made on paper on a reduced scale, and, after the lines are all perfectly adjusted, is copied on the floor of a room to the full size of the boat to be constructed. The technical name of the last operation is "laying off on the mould loft." From the full size drawings on the mould loft floor, the patterns for the different timbers are made, and all the bevels and measurements taken. The materials required for drawing will be: first, a good drawing-board made of soft pine, three feet wide and five feet long; one ruler or straight edge, four or five feet long with one edge chamfered down thin; one ruler twelve or fifteen inches long; a square or right angle; drafting scales; a pair of dividers; one "batten" of lancewood, or wood of similar quality, four feet long and one-fourth of an inch square, planed true, so that it will bend evenly from one end to the other; two or three shorter "battens," from one-eighth to three-sixteenths of an inch square at one end, and tapered uniformly to a point at the other; flat-headed engineers' tacks for fastening paper to the drawing-board. These are all the tools necessary, but a box of mathematical instruments will be handy sometimes. The "battens" are usually held to the curves by lead weights, weighing six or seven pounds each, and shaped like diagram number twenty; the lower side of weights should have paper pasted on, to prevent soiling the drawing. Instead of the weights I use common pins, set upright through the points determined on in the drawing. This method is not as neat as the first, but for all practical purposes is just as good. The drawings are three in number, and consist of the "sheer plan," diagram number seventeen; the "half-breadth plan," diagram number eighteen, and the "body plan," diagram number nineteen. The "sheer plan" shows the outline of the vessel as it would appear if cut through the middle longitudinally, and viewed from the side of the cut; viewed from above, the cut pieces represent the half-breadth plan. The "body plan" represents the vessel cut crosswise through the midship section, and indicates the outlines of the cross-timbers or ribs. The small scale of the diagrams render them imperfect; some of the lines are incomplete, and several cross-timbers are left out altogether; this has been done purposely to avoid complication. After the following description is understood there will be no difficulty in making a perfect copy if half of the lines were absent. Cross-timber "A" is represented on the diagrams as the "midship section;" the proper midship section, or "dead flat," is the cross-timber marked on diagrams with a capital "O" with a "cross" drawn through it. As the printers have no type to represent the conventional sign for the midship section, this section will hereafter be represented by a capital "O."

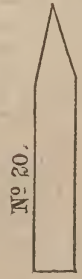
In regular drawings the water lines are marked with green ink, the buttock lines with red, and all other lines with black ink. As the lines in the diagrams are all of one color the student may be at first confused by their multiplicity, but a little study will soon give an insight to their meaning. The quickest way to learn drawing is to draw or copy drawings; continue the practice until every point and line, and their meaning, is indelibly fixed in the mind. Commence by drawing a line to represent the base of



HALF-BREADTH PLAN No 18.



BODY PLAN No 19



No 20.

the half-breadth plan to any scale. We will suppose one and one-half inches to represent one foot. Perpendicular to the base line draw vertical lines to represent the cross-timbers, one foot apart on the base line. (As the scale we are using is one and one-half inches to a foot, the vertical lines will, of course, be one and one-half inches apart on the drawing). The curved lines representing the water-lines are next copied. Mark on each cross-timber the points

where the water-lines cross them, and connect the points by curving a batten until all the points are touched by it; draw a pencil mark along the outline of the batten, and the line is established. The other lines are copied in the same manner. Leaving this plan for the present, we will next copy part of the sheer plan. Draw lines to represent the keel, stem and stern post; also a series of vertical lines to represent the cross-timbers; these lines correspond

to the vertical lines in the half-breadth plan, and are drawn at the same distance apart. Next draw the series of horizontal lines in the sheer plan, at distances representing three inches apart. These lines represent the water lines, and correspond to the curved water lines in the half-breadth plan. They are numbered alike on the diagrams. The sheer line or upper curved line in the sheer plan is next drawn. Obtain the points on the cross-timbers by mea-



Liquors.

Piper Heidsieck

AND PIPER "SEC."



For Sale Everywhere.

JOHN OSBORN, SON & CO., 45 Beaver street, New York,

and 44 St. Sacrament street, Montreal, GENERAL AGENTS.

Oct 11

Fishing Tackle.

B. GREENWOOD,

Manufacturer of Aquaria Greenhouse and Aquarium Cement, and dealer in Fish Food, Gold Fish, Water Plants, Fish Globes, and aquatic stock of all descriptions. Canaries, Cages, Rustic Baskets, Bird Houses, Sea Shells, etc., wholesale and retail.

Nos. 11 1/2 to 13 COLLEGE PLACE, Near Murray St. New York, N. Y.

H. L. LEONARD, BANGOR, MAINE,

Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty

Great reduction in prices. Trout Rods, full mounted, \$30, formerly \$50; other rods in proportion. Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof ferrule," and warranted against imperfections in material and workmanship.

Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancelwood. MADE TO ORDER.

I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods.

Also manufacturer of Patent Reels for Salmon and Trout fishing. The lightest, strongest, and handsomest Reels ever made.

Full line of FISHING TACKLE always on hand.

Send for circular and price list.

COMPETITION IS THE LIFE OF TRADE. J. B. CROOK & CO.,

FISHING TACKLE, 50 FULTON STREET, NEW YORK

Makes the Immense Reduction. Greenheart Rods for Trout and Bass Fishing, \$15 to \$30. Ash and Lancelwood Rods for Trout and Bass Fishing, \$7 to \$12. Everything else in proportion. Goods sent C. O. D. to all parts of the United States and Canada.

BREECH-LOADING IMPLEMENTS, at MASTERS, 125 Nassau street, New York, and 53 Court street, Brooklyn.

WHAT PRAIRIE OIL IS BEING USED FOR.

MR. KENWARD PHILIP, late Dramatic Editor Brooklyn Eagle, Brooklyn, N. Y., was unable to walk without the aid of crutches, owing to a severe attack of rheumatism. After the third application of PRAIRIE OIL the crutches were thrown aside, he having no further use for them.

Says the Proprietor of Niblo's Garden, New York: "PRAIRIE OIL gave me relief from inflammatory rheumatism after first application; and after the third I had no further use for my cane."

FRION ROUSE, Esq., ex-Building Inspector, DeKalb avenue and Fort Greene Place, Brooklyn, says: "For acute or inflammatory rheumatism it is a wonderful remedy; has been in use in my family for over a year."

M. C. ENBY, Esq., the well-known chemist, 319 Court street, Brooklyn, manufacturer of Eley's Catholic Troches, etc., says: "I find PRAIRIE OIL to be a most wonderful preparation in cases of rheumatism, having seen it tested in a case of years' standing. The patient obtained relief at once, and was ultimately cured."

MR. JOHN H. SNEDEKER, of Telfair & Snediker, oil merchants, 105 John street, New York, was cured of Pleurisy by the use of PRAIRIE OIL.

MR. G. PADDON, tobacco merchant, 992 Fulton street, Brooklyn, lost the use of his right leg by Sciatica, got relief at once after first application of PRAIRIE OIL. This gentleman had become so depressed by his ailment that he had given up all hopes of recovery.

CAPT. JOSEPH LA FIERA, Merchant Court, near Remsen street, Brooklyn, was cured of a stiff joint, of years standing, after a few applications of PRAIRIE OIL.

MR. BEETSON, publisher, 16 Beekman street, New York, says: "I find PRAIRIE OIL to be infallible in many serious complaints."

PRICE FIFTY CENTS AND ONE DOLLAR PER BOTTLE. Ask your Druggist for it.

P. O. Box 2957. "THE PRAIRIE OIL CO.," 132 Nassau St., N. Y. sent prepaid by express on receipt of ten cents additional. SEND FOR CIRCULAR.

New Advertisements.

25 FANCY CARDS, snowflake, damask, etc., no 2 alike, with name, 10c. Nassau Card Co., Nassau, New York. Oct 25 1st

FOR SALE.

(GUNS A SPECIALTY.)

BARKER & CO., General Auctioneers

AND

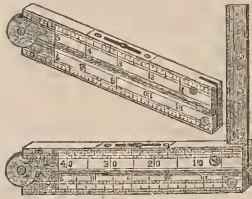
U. S. Marshals' Salesmen,

and the only parties selling the following Reliable and Elegant Breech and Muzzle Shot Guns at Auction. They are all fresh and warranted. New and perfect Guns from the celebrated European makers: P. Webley & Son, V. C. Schilling, James Allen Moore, Wellington, Hackett, Spencer, Manton, Greener, W. & C. Scott, Wealey Richards, J. P. Clabrough & Bros., and many others.

Orders from the country will be promptly attended to on C. O. D. Address

49 LIBERTY STREET, New York.

Nov 1 st.



Foot Rule, Level, Square, Plumb and Inclinometer.

THIS IS A Foot Rule, Level, Square, Plumb and Inclinometer. It may be used for leveling stands for rest shooting, and gives at once the degree of elevation and pitch to the foot. As a specimen of workmanship, it is faultless, and is strong and durable. No great loss of confidence in its merits that we hereby agree to refund its cost in every case where perfect satisfaction is not given. Sent by mail on receipt of \$2.50 STEPHENS & CO., Haverhill, Conn. Nov 1 st

Big Bonanzas for all agents. THE SOUTHERN AGENTS' MANUAL, Atlanta, Ga., describes impartially the goods, etc., of all best agents' houses in the United States. Scores of rare offers monthly. Agents choose from hundreds. On trial (to agents or those desiring agencies only) three months for three cents to pay postage. Nov 1 st



ROMAN'S Metal Shell Cleaner. Sold by the trade, or simply by mail, \$1.50-1.00 and 12-bore. J. F. ROMAN, 875 Shawmut ave., Boston, Mass. Nov 1 st

Wanted.

WANTED-Inventions secured for \$2 (better than caveat). Send REDMOND, Rochester, N. Y., \$1 and see. Oct 26 2d

WANTED-Everybody to subscribe to the Southern Poultry Journal, a handsomely illustrated monthly magazine, devoted to Poultry, Pet Stock and general sporting matters. Only \$2 per year, post-paid. Sample copies 20 cents. Correspondence to the various departments of the Journal, on all subjects of interest relating thereto. Secretaries of gun and sporting clubs are requested to favor us with notes of their movements, etc. Address E. B. HARTWELL, Publisher, P. O. Box 69, Louisville, Ky.

WANTED-A cooker, or other specialist who will bark freely on striking dead bird, to do, to remain by the bird, barking all the time. Address A. G. Dr., Kingsdon, Va. Nov 1 st

WANTED-The advertiser would buy at moderate price one or two red Irish pups of undoubted pedigree; about a year old. Address, F. E. this office. Nov 1 st

WANTED-Live moose and deer to stock a park. Address, stating terms and full particulars, S. Box 77, Station D, New York. Nov 1 st

NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

MADE OF BROWN VELVETEEN.

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$6.50. Also the best brown corduroy pants at \$10 per pair. I make only the one grade, as the cheapest goods do not turn briars and will not give satisfaction.

Also, in addition to the above, I am making a Waterproof Canvas Suit, same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is the Best Yet. Coat, \$6.50. For full Suit, \$14.00. I also make the Sleeveless Coat; Vest with sleeves if desired. Rules for measurement and samples sent upon application.

F. L. Sheldon,

RAHWAY, N. J.

For Sale in New York by

H. C. SQUIRES, 1 Cortlandt St., N. Y.,

ESTABLISHED IN 1837.

Consult your interest by sending for our revised and reduced prices.



Excelsior Scroll Saw

LATEST IMPROVEMENT. Double Treadle, including one doz. Saws, thirty inimitable Free Sawing Patterns and prepared Wood, to the value of \$4. A new device for tightening Saws. Power Drilling attachment. Wrench, Oil Cup and Screw Driver. Speed, 800 strokes per minute. Saws, 12-inch blade. Price, complete, cased and delivered on board cars or at Express office, \$12. Saw only, without attachments, \$9.



BUFFALO PONY PLANER

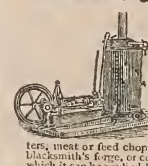
NEARLY ONE THOUSAND IN USE. Buffalo Pony Planer. Will cut itself and, pay expense of running in 8 days. Price from \$50 and upwards, extra in quality.

LIGHT MACHINES FOR PONY OR HORSE POWER. The great success of these machines is unprecedented, and it may be confidently affirmed that no article has ever more clearly proved its superiority for the quantity and quality of its work than this. It is made in several sizes, and can be fitted up suitable for bullock, mule, steam or wind power, in addition to those above mentioned.



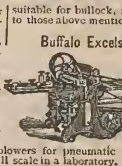
Buffalo Excelsior Pony Planer and Mather.

Patented March 30, 1875. Best of its kind in use. Price, complete, \$75. Also Planing Machine, Knives, which are recommended as superior and extra in quality.



SMALL STEAM ENGINES. With Copper Boiler, to drive light Lathes, Scroll Saws, etc. Are all sizes from 1/2 up to 2 horse power; either plain castings, partly finished or complete, ready for use.

The "Scientific American" of June 10, 1875, says of the above, in an extended article, introducing our manufacturers to the public: "It can turn wringers, churns, washing machines, or ice cream freezers, run coffee mills, pump water through a house, accurate foot lathes, scroll saws or light boxing machinery, run knitting or sewing machines, turn a grindstone or emery wheel, work ventilating or hand thrashing machine cutting or feed choppers, or sausage machines, drive small blowers for pneumatic dispatch tubes in a building, or for a blacksmith's forge, or compress air or work an air pump on a small scale in a laboratory. These are a few only of the purposes to which it can be applied."

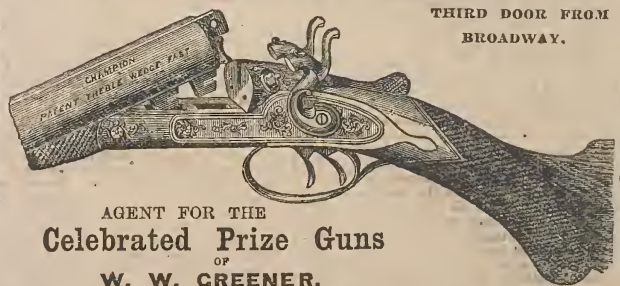


Best of its kind in use. Price, complete, \$75. Also Planing Machine, Knives, which are recommended as superior and extra in quality.

Illustrated Catalogue containing One Hundred Scroll Work Designs mailed to any address free on receipt of Stamps. GEORGE PARR, BUFFALO, N. Y., U. S. A.

HENRY C. SQUIRES, No. 1 CORTLANDT STREET,

THIRD DOOR FROM BROADWAY.



AGENT FOR THE Celebrated Prize Guns OF W. W. GREENER.

Winner of the Minutiae Silver Cup in 1874, presented by Mr. Purdy, beating all best London makers.

Winner of London Gun Trial, 1875, beating 102 guns.

These guns have been winners in every trial during the last three years, competing with all the first-class makers in England. The shooting of every gun is guaranteed, and prices as low as consistent with good work. Guns built to exact order of sportsmen. I keep the best selected stock of guns by all the other makers to be found in this city, including Scott, Webley, Remington, Parker and Fox, Marshall's new Glass Ball Trap, \$5; three traps, \$12. English chilled shot, all sizes and in any quantities. Agent for Dittmar powder. Complete outfits for hunting and camping. Best Breech-Loader ever offered in the United States for \$35. Wholesale Agent for Holabird's Shooting Suits, and Camp Lounge Company.

THE UNITED STATES CARTRIDGE COMPANY, LOWELL, MASS.

Manufacturers of the CENTRAL FIRE, SOLID HEAD, BRASS SHELL, RE-LOADING CARTRIDGE, Used by the Army and Navy of the United States and several Foreign Governments. All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES. Send for Illustrated Catalogue. WALLACE & SONS, Agents, N. Y. City.

BOYS' SINGLE-BARREL SHOT-GUNS, \$2.50 at MASTERS, 125 Nassau street, New York, and 53 Court street, Brooklyn.

DINCEE SCRIBNER, Manufacturer of Salmon and Trout Rods, Salmon and Trout Flies Casting Lines, Landing Nets, Gaffs, etc. Best Greenheart Rods at \$9, \$11 and \$13 each. Waterloo Street, St. Johns, N. B. 1712 6m

SHELLS LOADED FOR PARTRIDGE, QUAIL, S' WOODCOCK and SNIP, \$1 per hundred, at MASTERS, 125 Nassau street, New York, and 53 Court street, Brooklyn.

The Ludlow Trout Co. Will this year take from one to two million brook trout eggs (ready for shipment from Nov. 10 to Dec. 20) at lowest prices. Send for price list. Address B. FREEBURG, SUPERINTENDENT, Aug 23 3m Ludlow, McKean County, Pa.

REVOLVERS, 1 SHOT, \$3.50 at MASTERS, 125 Nassau street, New York, and 53 Court street, Brooklyn.

ELEY'S SHELLS, WADS and CAPS at MASTERS, 125 Nassau street, New York, and 53 Court street, Brooklyn.

# NICHOLS & LEEFEVER, MAKERS OF FINE GUNS.

## CATALOGUES SENT ON APPLICATION.

### SYRACUSE, N. Y.

#### The Kennel.

**FOR YOUNG COCKER SPANIEL STOCK FROM** the choicest breeds. Inquire of  
**M. P. MCKOON,**  
 Franklin, Del. Co., N. Y.  
 dec23-17

**FOR SALE**—Fox hounds, No. 1 stock; very fast and strong-scented; some one year old and some pups. L. M. WOODEN, Rochester, N. Y. Aug 9 ft

### BALLARD'S FLEA KILLER!

#### DESTRUCTION OF FLEAS On Dogs and Other Animals.

An Absolute and Perfect Extremator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.

**NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.**

**Price 50 Cents per Package.** Will be sent postage paid on receipt of price. Proprietors,

**LAZELL, MARSH & GARDINER,**  
 19 GOLD STREET, NEW YORK.

### SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped.  
**F. O. de LUZE,**  
 13 South William Street, N. Y., sole Agent.  
 For sale in cases of 112 lbs. Special terms to dealers.

### CHAMPION LARK IN THE STUD

Orange and white, by Brooks' Phil, out of Raymond's Dido. Perfect specimen of English setter. First prize in N. Y. Bench Show for English setters in largest class ever shown in the country, beating Morford's Bruce and Nip and Tuck, who beat both Paris and Leicester. For terms apply to  
**E. S. WANMACHER, Hohokus, N. J.**

### Fleas! Fleas! Worms! Worms! STEADMAN'S FLEA POWDER FOR DOGS.

**A Bane to Fleas—A Boon to Dogs.**

This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.

**Price 50 cents by mail, Postpaid**

**ARECA NUT FOR WORMS IN DOGS.**  
 A CERTAIN REMEDY.

Put up in boxes containing a dozen powders, with full directions for use.

**Price 50 cents per box by mail.**

Both the above are recommended by **ROD AND GUN** and **FOREST AND STREAM.**

**W. HOLBERTON,**  
 102 NASSAU STREET.

### MARSTERS' IMPROVED



### Horn Dog Whistle.

Cannot be Lost from the Coat. ALWAYS IN THE SAME PLACE WHEN WANTED.

Sample by mail, 50 cents. Trade applied.

**J. F. MARSTERS, 125 NASSAU ST., N. Y.,**  
 AND  
**55 COURT STREET, BROOKLYN;**  
 Oct 11 ft

#### The Kennel.

**EDINA KENNEL.**  
**JESSE SHERRWOOD, PROPRIETOR.** Edina, Knox County, Mo., breeder and importer of Sporting Dogs. Pointers, setters, spaniels, fox and beagle hounds "Sancho," Imp. Pointer, stud dog; fee, \$35. See English K. C. S. B., No. 1,005. He is a grandson of the celebrated "Hamlet," No. 536. This dog "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874, three here.

**FOR SALE,** when eight weeks old, six puppies out of my blue bellon setter Nell, by Bob Boy. They are black and white. Two of them are black white and tan, and are almost perfect images of their sire. For particulars, address **L. F. WHITMAN, 5 City Hall, Detroit, Mich.** j28 ft

### DOGS.

**DOCTOR HENRY GARDNER, No. 146 West** Thirtieth street, New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ag 2ft

**FOR SALE**—First class retriever on land and water. Splendid ducking dog. Sold for want of use. Address, **JAMES COOK, Roseton, N. Y.** Oct 25 ft

**FOR SALE**—FULL-BLOODED IRISH SETTER pups, over three months old; sire Don, imported from Ireland, December, 1873, by G. H. Turner, Sec. National Kennel; dam, Countess, by Rodman's Dash. Two Gordon setter bitches, four months old, out of the best dog and bitch in this country in the field. One Gordon bitch, 18 months old; price \$35. Full pedigree given with dogs. **H. B. VONDER-SMITH, Lancaster, Pa.** Oct 25 ft

**FOR SALE OR EXCHANGE**—One setter bitch, three years old, well broken; one setter, one year old, house broken; one red Irish setter, eight months old. **J. H. STEELE, Ellington, Conn.** Nov 1 ft

**FOR SALE**—English water spaniel, from imported stock, eight months old; well trained for water gunning; would exchange for a Scott or Greer or gun or other good make. **B. TIRRELL,** Weymouth, Mass. Nov 1 ft

#### For Sale.

**FOR SALE, CHEAP**—Maynard Sporting rifle, pistol grip stock, 40 cal., 26-inch hbbl. Verner back sight, 3 front sights, 25 cal. cases and appendages, all as good as new. Reason for selling no use for it; will be sold at a bargain. For further particulars, address **H. LOCK, Box 77, Geneva, N. Y.** Nov 1 ft

**FOR SALE**—or will exchange for heavier gun, Westley breech-loader, 7 lbs., 12 gauge, 30 in. First rate gun for light work; good as new; cost \$161. Price \$100. **R. J. O., Box 1652, Phila., P. O.** Nov 1 ft

**FOR SALE**—A Gentleman's Shooting Box complete (occupies with 1500 sq. ft. of ground) comprising 42 acres of land, a new house fully furnished, barn, wagon house, farmer's house, ice-house, dog kennels, henery, etc. Situated on the shore of a beautiful lake, abounding in black bass, perch, etc. Ruffed grouse, woodcock and deer immediately around the grounds. Horse, cow, hunting wagon, buckboard, fine harness (double and single), farm tools, boats, etc. Also two fine setter dogs and two first class cocker spaniels; thorough pedigree. All for sale for \$5,000 each, as the owner is going West permanently. Address **COLONEL FOREST AND STREAM OFFICE, New York.** Nov 1 ft

**FOR SALE**—A W. W. Greener, No. 10 breech-loader, 8 lbs., side lever; sole leather case, tray for shells, and apartments for tools, etc., with 100 Hart's metal shells; but little used; price \$125. **W. H. WHITEALL, 417 Walnut street, Room No. 2, Phila.** Nov 1 ft

**SECOND-HAND**—A very fine Tolley breech loader, with two sets of barrels fitted to same stock; one pair to bore Danabsons and very close shooting, other pair laminated steel and cylinder bore; weight, 9 lbs. and 9 1/2 lbs. This gun was made to order for the owner, and is very superior in every respect. Can be examined at gun store of **HENRY C. SQUIRES, 1 Cortlandt street, N. Y.** Nov 1 ft

**FOR SALE CHEAP**—English breech-loading shotgun, 12 bore, 32-inch barrels; very little used. **W. HUMPHREYS, 81 Fulton street, N. Y.** Nov 1 ft

### Brook Trout Eggs For Sale.

The Proprietors of Trout Grove Fish Ponds are taking great care to breed from their largest and best two and three year old trout. Every package of eggs guaranteed perfect. Fry yearlings and older trout in their season. Send for price list to **J. B. EDDY, Randolph, Catt. Co., N. Y.** Oct 11

**CARTRIDGE BAGS, \$1 25; GAME BAGS, \$1 75; POWDER FLASKS, 75c.; SHOT POUCHES, 75c.,** at **MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.**

**BLOOMING-GROVE PARK ASSOCIATION.** One share in above association for sale at a very low price. The best Game Preserver in America. Front, Black Bass and Pickerel fishing. Address **SPORT, this office.** fc22 ft

**A VERY DESIRABLE ESTATE,** either for market gardening or general sporting purposes, at the South, will be leased to responsible parties for a long or short term of years. Persons intending to locate in Florida will do well to investigate. Address **"SPORTSMAN," this office.** Ag 23m

**CITY AND COUNTRY PROPERTY** bought, sold and exchanged. **C. S. PECK, 3 West Twenty-fifth street, New York.** Sept 27 1y

#### For Sale.

**THOROUGHbred FOR SALE**—Red Irish setter, 4 years old, three years old, thoroughly broken to field work, bred by Mark, who was imported in 1859 from Lord Lurgan's kennel, Ireland, the owner of Master McGrath. His mother is Queen, out of imported bitch Nell, by imported dog. Training and stock guaranteed. Address, **JAS. F. DUNCAN, Messrs. Laney & Dnord, 110 Grand St., New York.** Nov 1 ft

**25 Fashionable Cards, no 2 alike, with name 10c.** post paid. **Geo. I. Reed & Co., Nassau, N. Y.** Oct 17 ft

#### The Kennel.

**HORTICULTURAL HALL, GRAND NATIONAL DOG SHOW,** Given under the auspices of the following gentlemen: **HENRY H. RICHARDS, President of the Sportsman's Club; FRANK FURNESS, S. W. JANNEY, ALFRED BIDDLE, W. D. WINSO, JOS. T. BAILEY, JAN. W. FASSETT, JOHN S. DAVIS, J. H. HINSON, SERGEANT COL. JAS. SCHOTTEL, J. DUROSS O'BRIEN, SUSSEX DAVIS.** This grand exhibition commences on  
**MONDAY, November 6, 1877, AND CONTINUES FIVE DAYS.**

**OVER THIRTEEN HUNDRED DOLLARS** has been appropriated for prizes, which will be offered in the form of **SOLID SILVERWARE.**

**PHILADELPHIA, October 24, 1877.** The management of the national Dog Show, which takes place at Horticultural Hall the last week in November, have this day purchased of our solid silver prizes, to the amount of thirteen hundred dollars. (Signed) **BAILLY & CO., Chestnut and Twelfth streets.**

In addition to the regular prizes, a large number of **VALUABLE SPECIAL PRIZES** have been already offered by merchants of Philadelphia. For full particulars, address the management at **HORTICULTURAL HALL, Broad street, Philadelphia, Pa.** Nov 1 ft

### Hotels and Resorts for Sportsmen.

**Metropolitan Hotel,** WASHINGTON, D. C.  
**Carrollton Hotel,** BALTIMORE, Md.

**R. B. Coleman & Co.,** proprietors of these famous hotels, are well known to the old patrons of the **ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.**

**THE METROPOLITAN** is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and re-furnished throughout. The cuisine is perfect; the service regular, and charges moderate.

**DUCK SHOOTING.**  
**SHINNECOCK BAY—THE BEST SHOOTING GROUNDS NEAR NEW YORK CITY.**

The Bay View House is the largest and best located house on the bay, being centrally close by the water, and commanding a view of the shooting grounds. Experienced guides, with boats, bateaus, decoys, etc., in attendance. A gr at amount of duck feed in the bay, and more ducks this season than for years before. Address **O. WILCOX, Good Ground P. O., Long Island.**

**HALSEY HOUSE,** ATLANTICVILLE, LONG ISLAND, is nearer New York City than any house bordering on Shinnecock Bay. Is as near, and has as good shooting grounds, and as experienced attendants (with live decoys and other decoys, batteries, etc., always on hand); nearer the station; the largest and the best kept house in the bay. L. I. RR. to Atlanticville Station. Fare, \$2. Stage meets all trains. **W. F. MATSBEY, Owner and Proprietor.** Ag at amount of duck feed in the bay, and more ducks this season than for years before. Address **O. WILCOX, Good Ground P. O., Long Island.** Oct 25

**SPORTSMEN**—My house is situated right on and near the best hunting grounds in Sullivan County; partridges very plenty; have good accommodations for sportsmen and their families. Any references given. Address **BRADLEY ELDRD, Sullivan Co., N. Y.** Oct 25 ft

**SPORTSMEN**—Wm. Squires, Blue Point, begs to inform sporting gentlemen that he has good accommodation. Quail are plentiful, the young bay birds are now coming in, and every wing-birds fair for an excellent season. Address **Wm. SQUIRES, Blue Point, Southside, L. I.** Nov 1

**SHOT-GUNS AND RIFLES LOANED** at **MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.**

#### Sportsmen's Goods.



**HAMMOCKS** FOR LAWNS and EXCURSIONS  
 Tents, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seetees, etc. Send for Illustrated Circular.  
**G. W. KRISTER PECK,** Manufacturers' Agents, 110 Chambers St., N. Y.

#### Folding Pocket Mosquito Bar.

A most ingenious device for camping purposes. It is very light, easy to carry and can be put up or taken down in half a minute. Pronounced by sports men to be the most complete thing of the kind ever offered to the public. Price only \$1.50. Lawn covered, expressly for Florida travel, \$3.50. Sent post-paid on receipt of price. Liberal discount to the trade.

**A. A. COWING,** Watkins, N. Y.  
**W. HOLBERTON, 109 N. Nassau St., N. Y. Ag ut.**

#### IMPROVED Caiber Pantalons.



**GAITERS and PANTALONS** combined, cloth thick up to the thigh, the inner ply of heavy huck, heavily padded to keep the legs dry. The most perfect shape, and comfortable for riding and walking.

**PRICES:**  
 Duck.....\$5  
 Fustian.....\$9  
 And Corduroy.....\$10

I have now the best corduroy I ever saw. I am getting it up cheap. Duck suits for \$5 and \$7. All my goods are made with the best linen thread, and I do not use rivets to fasten the seams, but good, honest work instead. The trade supplied. Write for circular.

#### Geo. C. Henning, WASHINGTON CITY.

### THE ECLIPSE LOADER.

Loads sixteen shells at once. Occupies a space ten inches long, six and seven wide. The rapidity with which this loader works, the saving of labor, its simplicity and cheapness, must convince it to every owner of a breech-loader.

**PRICE \$1,** with liberal discount to the trade. Send for circular. Address  
**TODD, SCHENCK & CO.,** 34 West Lombard Street, Baltimore, Md.

### CURTIS & HARVEY and DUPONT GUN-POWDER at MARSTERS,

125 Nassau street, New York, and 55 Court street, Brooklyn.

#### Sportsmen's Routes.

### A BUFFALO HUNT

—ON THE—  
**Atchison, Topeka and Santa Fe Railway.**  
**THE NEW ROUTE FOR KANSAS & COLORADO**  
**SPECIAL ATTENTION TO SPORTSMEN.**

For maps, tickets, and general information, apply to **L. H. NUTTING, Gen'l Eastern Agent, 234 Broadway, New York.**

**T. J. ANDERSON, Gen'l Pass. Agent, 7 Topka**  
**W. F. WHITE, Gen'l Ticket Agent, Kansas**

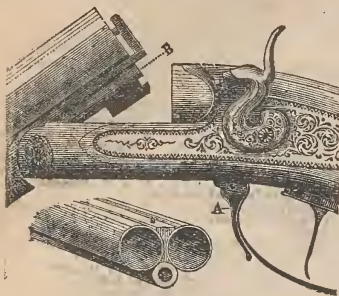


**HOW TO LIVE IN FLORIDA.**  
**HOW TO GO, COST OF TRIP, COST TO SETTLE, what constitutes how to cultivate it, etc., etc., all told in each number of Florida New York, published at 21 Park Row, New York City. Single copy, 10c; one year \$1. 250 Acres Orange Land for \$20. One line of railroad, country healthy, thickly settled, addressed, R. OLIVER, Gen'l Agents, Box 622, New York.**





Guns, Rifles, Etc.



Breech-Loading Guns.

(TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

PRICES.

- Three barrel, \$75 to \$250. Double barrel shot guns. Damascus barrel, \$50 to \$200. Twist barrel, \$35.

SEND FOR NEW CIRCULAR.

W. H. BAKER & CO., Syracuse, N. Y.

Sportsman's Depot.

(ESTABLISHED 1836.)

First premium at World's Fair at New York and Centennial Exhibition.



JOHN KRIDER,

N. E. Cor. Second and Walnut Sts., Phila. GUNS, RIFLES, PISTOLS.

Fishing Tackle, Rods, Reels, Lines, Hooks, Flies, Leaders, Snoods, Artificial Bait, Fly Books, Etc., Etc.

Salmon, Bass and Trout Flies Made to Order.

"Kriders" Celebrated Center Enamel Spilt and Glued Bamboo Rods.

Birds' Eggs and Birds' Skins in Great Varieties—Taxidermy in all its branches.

Nippon's Patent Dog Biscuits. Repairing of all kinds.

E. THOMAS, JR., GUNS, PISTOLS, SPORTING GOODS, 174 South Clark Street, Chicago, Ill.



THE NEW AMERICAN Breech-Loading Shot Gun

For close hard shooting excels all others. Price \$17. Send for circular. Duck guns, extra heavy, a specialty. HYDE, SHATTUCK & CO., Mrs., Hatfield, Mass. Sept 6m.

COMPLETE OUTFITS FOR CAMPING, SHOOTING, AND FISHING.

Fine fishing and shooting tackle, camp stove, leather, rubber and canvas goods and suits for sportsmen. Tents, portable boats, moccasins, etc. AGENTS FOR THE FOX GUNS.

The best and strongest American guns yet made. Sole agent for the celebrated McBride dies, full length fly books, Fry's glass ball traps and bull-eye balls, etc. Sent ten cents for illustrated catalogue, with rules for glass ball shooting, and hints on camping, shooting and fly-fishing for trout and black bass.

W. HOLBERTON, P. O. Box 5,109. 102 Nassau street, N. Y. Aug 23 tf.

Amusements, Etc.

Zoological Garden.

FAIRMOUNT PARK, PHILADELPHIA. Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 15

THE GREAT NEW YORK AQUARIUM, Broadway and 85th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments. Coney Island Aquarium now open for the summer.

W. & C. SCOTT & SONS.



TRIPLEX.

First Prize Medal and Diploma, awarded at the Centennial Exhibition, for excellence of workmanship and material in their Premier Quality and medium grades. Their New Patent Triplex Lever Grip Action and Compensating Lump. The attention of sportsmen is requested to the above new action. Its superior strength and solidly impart greatly improved shooting powers. Hard hitting being the desideratum required, is obtained by this powerful gun. Prices of the New Triplex Lever Grip, \$175, \$225 to \$400. Marked the Triplex 10-bore extra. Our highest grade is as usual

marked the PREMIERE QUALITY

[Extract from FOREST AND STREAM, New York, December 26, 1876. Contributed by one of the Judges of Awards of Guns at the Centennial.]

"This action (The Triplex Lever Grip) combines in the highest degree strength and simplicity, and most rapidly secure the favor of all who test its merits.

COMPENSATING LUMP. Strongly recommended. It is invaluable, and should be ordered on every gun. Costs about \$10 extra. Choke-bore, medium or full. Our guns to be had of the principal dealers in the trade only.

PREMIER GUN WORKS, Birmingham, England.

DON'T PASS THIS BY.

STODDARD'S CARTRIDGE-LOADING IMPLEMENT, COMBINING ALL OTHER TOOLS AND FOR ALL SHELLS.

Length, 4 1/2 inches; weight, 10 ounces, and nickel-plated. Price, \$6.

Recommended by FOREST AND STREAM AND ROD AND GUN, Boone, Recapper, Will Wildwood, Ira A. Payne, and others. Liberal discount to the trade. Send postal order to

C. J. STODDARD & CO.,

Look box 192, Washington, D. C.

TO SPORTSMEN IN GENERAL!

Headquarters Bohemian Glass Works, 214 PEARL STREET, NEW YORK.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the service of this well-known Sportsman,

IRA A. PAINE,

to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell.

In offering this new ball to the public it will require very little introduction, as in no instance where it has been exhibited has it failed to take the place of all others, and is to-day the only perfect substitute for a bird in use.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300 or boxes of 500. Send for price list. We intend offering special inducements to the trade.

Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

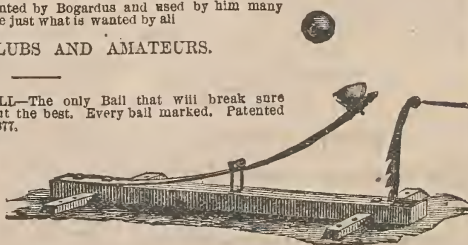
SPORTSMEN'S CLUBS AND AMATEURS.

THE PATENT ROUGH BALL—The only Ball that will break sure when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 13, 1877.

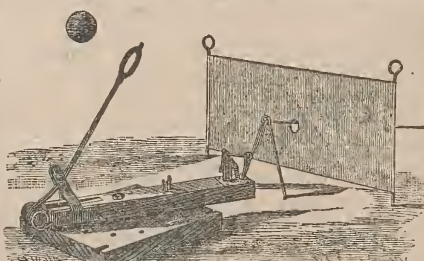
Geo. E. Hart & Co.,

NEWARK, N. J.

TRADE SUPPLIED.



HUBER & MERWIN'S CHAMPION BALL TRAP.



We call the attention of the fraternity to the above trap, claiming to be the *vis plus ultra*. It combines compactness with durability, and is arranged, by a swivel on the bed-plate, to throw the ball in any direction or at any elevation unknown to the shooter, a screen preventing his seeing the direction in which the trap is set.

The spring, as the cut will show, is made of a steel rod or wire, bent spirally at the point of attachment, thus receiving the concussion its entire length, and preventing breakage.

PRICE \$10. FOR SALE BY

BARTON & CO., Sole Agents,

337 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP, for durability and perfection of its operation, superior to them all, and take pleasure in recommending the "Champion" to sporting clubs and my friends. (Signed) Aug 9 1y

THE GREEN GUN has the simplest and strongest snap-action made. The proportions and finish, the shooting qualities for penetration and pattern, are not excelled. Can bore to make any pattern ordered, from a cylinder to a full choke. Muzzle-loaders altered to breech-loaders, with same action as new guns. Barrels bored to shoot close and strong, the very best manner.



Price \$25. Re-boring and repairing breech-loading shot-guns done promptly and in the very best manner. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Aug 30 tf

C. M. BRENNAN,

OLD KENTUCKY BOURBON & MONONGAHELA,

49 South Clark Street, Chicago.

UNION SQUARE HOTEL,

UNION SQUARE, Corner 15th Street, New York.

A. J. DAM & SONS, Proprietors.

Sportsmen's Goods.

W. H. HOLABIRD, Manufacturer of

Specialties in Clothing FOR SPORTSMEN. Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent by mail, post-paid, \$8.

Holabird's New Game Bag; weighs 12 ounces. The most convenient and coolest garment ever offered to Sportsmen. Can be used in place of a coat; room for 60 shells and 75 snipe or quail; by mail for \$2.

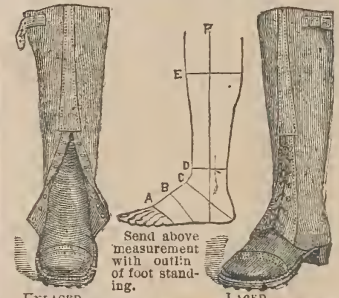
Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for best shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style.

Send 50 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods. Jy 12 tf

THOMSON'S New Style Hunting Boots.



Has all the benefits of Top Boots, and ease and comfort of Laced Shoes. Waterproof to the top. Send address for descriptive card.

THOMSON & SON, P. O. Box 1,018, 301 Broadway, N. Y.

GOOD'S OIL TANNED MOCCASINS.

The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine article. Send for illustrated circular. MARTIN S. HUTCHINGS, P. O. Box 305, Dover, N. H. (Successor to Frank Good.) W. HOLBERTON, 109 Nassau St., N. Y., Agent.

The Sportsman's Note Book.

Containing Diary, Blank Scores for Rifle, Glass Ball and Pigeon Shooting. Game-cores, bills and receipts. Game Laws for the principal States, etc. Bogardus & Holberton's Rules for Glass Ball Shooting. By W. HOLBERTON, 109 Nassau street, N. Y. Sent post paid on receipt of price, 50 cents.

LIBERAL DISCOUNT TO THE TRADE. Oct 11 tf

Founded July 4, 1808.



Thos. W. Sparks,

Shot & Bar Lead MANUFACTURER.

Office 121 Walnut Street, Philadelphia.

Magic Lanterns and Stereopticons.

E. & H. T. ANTHONY & CO., 591 Broadway, N. Y., opposite Metropolitan. Stereoscopes and Views; Graphoscopes, Chromos and Frames; Albums, Photographs of Celebrities, Photographic Transparencies, Convex Glass, Photographic Materials. Awarded First Premium at Vienna and Philadelphia. dec 25

Sportsmen's Headquarters FOR WINES, LIQUORS AND CIGARS.

Onto's for yachting. The camp or field a specialty. Olives by the case, gallon or bottle.

THOS. LYNCH, IMPORTER,

99 NASSAU ST., Bennet Building, New York. Sept 27 tf

# FOREST & STREAM

## ROD & GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year.  
Ten Cents a Copy.

NEW YORK, THURSDAY, NOVEMBER 8, 1877.

Volume 9.—No. 14.  
[No. 111 Fulton St., N. Y.]

### DICKENS IN CAMP.

Selected.

Above the pines the moon was slowly drifting,  
The river sang below;  
The dim Sierras far beyond uplifting,  
Their minarets of snow.

The roaring camp fire, with rude humor, painted  
The ruddy tints of health  
On haggard face and form that drooped and fainted  
In the fierce race for wealth;

Till one arose, and from his pack's scant treasure  
A hoarded volume drew,  
And cards were dropped from hands of listless leisure  
To hear the tale anew:

And then, while round them shadows gathered faster,  
And as the fire-light fell,  
He read aloud the book wherein the Master  
Had writ of Little Nell.

Perhaps 'twas boyish fancy—for the reader  
Was the youngest of them all—  
But, as he read, from clustering pine and cedar  
A silence seemed to fall

The fir trees, gathered closer in the shadows,  
Listened in every spray,  
While the whole camp, with Nell, on English meadows  
Wandered and lost their way.

And so in mountain solitudes o'er-taken  
As by some spell divine—  
Their cares dropped from them like the needles shaken  
From out the gusty pine.

Lost is that camp, and wasted all its fire  
And he who wrought the spell!  
Ah, to wing pine and stately Kentish spire,  
Ye have one tale to tell!

Lost is that camp! but let its fragrant story  
Blend with the breath that thrills  
With hop-vines' incense all the pensive glory  
That fills the Kentish hills.

And on that grave where English oak, and holly,  
And laurel wreaths entwine,  
Deem it not all a too presumptuous folly—  
This spray of Western pine.

—From the Overland Monthly.

For Forest and Stream and Rod and Gun.

## Old Habitations of a Lost Race.

RESEARCHES IN NEW MEXICO AND ARIZONA.

UP to the year 1875, rumor had been telling many marvellous stories of strange and interesting habitations of a forgotten people who once occupied the country about the head-waters of the Rio San Juan; but these narrations were so interwoven with romance that but few people placed much reliance upon them. To those well versed in Archaeology, ruins of an extensive and interesting character were known to exist throughout New Mexico and Arizona, and the various reports of Abert, Johnson, Sitgreaves, Simpson, Whipple, Newberry and others form our most interesting chapters in ancient American history; but their researches, aside from the meagre accounts published by Newberry, threw no light on the marvellous cliff dwellings and towns north of the San Juan.

In 1874 the photographic division of the United States Geological Survey was instructed, in connection with its regular work, to visit and report upon these ruins, and in pursuance of this object made a hasty tour of the region about the Mesa Verde and the Sierra EL Late in southwestern Colorado, the results of which trip, as expressed by Bancroft in the "Native Races of the Pacific Coast," "although made known to the world only through a three or four days exploration by a party of three men, are of the greatest importance." A report was made and published with fourteen illustrations in the Bulletin of the U. S. Geological and Geographical Survey of the Territories, 2d Series No. 1.

The following year the same region was visited by Mr. W. H. Holmes, one of the geologists of the Hayden Survey, and a careful investigation made of all the ruins. Mr. Jackson, who had made the report the previous year, also revisited this locality, but extended his explorations down the San Juan to the mouth of the De Chelly, and thence to the Moqui villages in northeastern Arizona. Returning, the country between the Sirreca Abajo and La Sal, and the La Plata was traversed, and an immense number of very interesting ruins were first brought to the attention of the outside world by the

report which was published the following winter by Messrs. Holmes & Jackson. (Bulletin of the U. S. Geological and Geographical Survey of the Territories, Vol. II. No. 1.)

The occasion of the Centennial Exhibition at Philadelphia led to the idea of preparing models of these ruins, for the clearer illustration of their peculiarities, four of which were completed in season for the opening of the Exhibition. The first was made by Mr. Holmes, with whom the idea originated, and represents the "Cliff House of the Mancos Canyon," the exterior dimensions of which are twenty-eight inches in breadth by forty-six inches in height, and the scale 1.24 or two feet to the inch. This is a two-story building, constructed of stone, occupying a narrow ledge in the vertical face of the bluff, 700 feet above the valley, and 200 feet from the top. It is twenty-four feet in length and fourteen feet in depth, divided into four rooms on the ground floor. The beams supporting the second floor are all destroyed. The doorways—serving also as windows—were quite small, only one small aperture in the outer wall facing the valley. The exposed walls were lightly plastered over with clay, and so closely resembled the general surface of the bluff that it becomes exceedingly difficult to distinguish them at a little distance from their surroundings.

The second model of this series was constructed by Mr. Jackson, and represents the large "Cave town in the valley of the Rio de Chelly," near its junction with the San Juan. This town is located upon a narrow beach occurring about eighty feet above the base of a perpendicular bluff some 300 feet in height. It is 545 feet in length, about forty feet at its greatest depth, and shows about seventy-five apartments on its ground plan. The left hand third of the town, as we face it, is overhanging some distance by the bluff, protecting the buildings beneath much more perfectly than the others. This is the portion represented by the model. A three-story tower forms the central feature; upon either side are rows of lesser buildings, built one above another upon the sloping floor of rock. Nearly all these buildings are in a fair state of preservation. This model is thirty-seven by forty-seven inches, outside measurements, and the scale 1.73 or six feet to the inch. A "Restoration" of the above forms the third in the series, of the same size and scale, and is intended, as its name implies, to represent as nearly as possible the original condition of the ruin. In this we see that the approaches were made by ladders and steps hewn in the rock, and that the roofs of one tier of rooms served as a terrace for those back of them, showing a similarity, at least in their construction, to the works of the Pueblos in New Mexico and Arizona. Scattered about over the buildings are miniature representations of the people at their various occupations, with pottery and other domestic utensils.

The "Triple Walled Tower" at the head of the McElmo, is the subject of the fourth model. It was constructed by Mr. Holmes, and represents, as indicated by its title, a triple walled tower, situated in the midst of a considerable extent of lesser ruins, probably of dwellings, occupying a low beach bordering the dry wash of the McElmo. The tower is forty-two feet in diameter, the wall two feet thick, and now standing some twelve feet high. The two outer walls enclose a space of about six feet in width, which is divided into fourteen equally sized rooms, communicating with one another by small window-like doorways. The above are all that were exhibited at Philadelphia. Since then others have been made by Mr. Jackson, as follows:

"A Cliff House" in the valley of the Rio de Chelly. It is about twenty miles above the cave town already spoken of. This is a two-story house, about twenty feet square, occupying a ledge some seventy-five feet above the valley, and overhanging by the bluff. The approach from the valley is by a series of steps hewn in the steep face of the rock, and this method was the one most used by the occupants, although there is a way out to the top of the bluff. This model is forty two inches in height by twenty-four broad, and is built upon a scale of 1.86.

"Tiwa," one of the seven Moqui towns in northeastern Arizona, is a very interesting and instructive model, representing as it does one of the most ancient and best authenticated of the dwellings of a people who are supposed to be descendants of the Cliff Dwellers. Tiwa is the first of the seven villages forming the province as we approach them from the east, and occupies the summit of a narrow mesa some 600 feet in height, and 1,200 yards in length, upon which are also two other somewhat similar villages. The approach is by a circuitous roadway hewn in the perpendicular face of the bluff,

which surrounds the mesa upon all sides; it is the only approach accessible for animals to the three villages. Other ladder-like stairways are cut in the rock which are used principally by the water carriers, for all their springs and reservoirs are at the bottom of the mesa. This village is represented upon a scale of one inch to eight feet, or 1.96. The dimensions of the model are thirty-six inches in length, twenty-nine inches in width, and fourteen inches high.

In the Spring of 1877, Mr. Jackson made a tour over much of the northern part of New Mexico and westward to the Moqui towns in Arizona, and secured materials for a number of very interesting models, illustrating the methods of the Pueblos or town builders in the construction of their dwellings. Two villages have been selected for immediate construction as showing the most ancient and best known examples of their peculiar architecture, viz.: Taos and Acoma, the one of many storied, terraced houses, and the other built high up on an impregnable rock.

The model of Taos is now completed, the dimensions of which are forty-two by thirty-nine inches, and the scale one inch to twenty feet. Of this town Davis says: "It is the best sample of the ancient mode of building. Here are two large houses, three or four hundred feet in length and about one hundred and fifty feet wide at the base. They are situated upon opposite sides of a small creek, and in ancient times are said to have been connected with a bridge. They are five and six stories high, each story receding from the one below it, and thus forming a structure terraced from top to bottom. Each story is divided into numerous little compartments, the outer tier of rooms being lighted by small windows in the sides, while those in the interior of the building are dark, and are principally used as storerooms. The only means of entrance is through a trap door in the roof, and you ascend from story to story by means of ladders on the outside, which are drawn up at night." Their contact with Europeans has modified somewhat their ancient style of buildings, principally in substituting doorways in the walls of their houses for those in the roof. Their modern buildings are rarely over two stories in height, and are not distinguishable from those of their Mexican neighbors. The village is surrounded by an adobe wall, which is just included within the limits of the model, and incloses an area of eleven or twelve acres in extent. Within this limit are four of their *estufas*, or secret council houses. These are circular underground apartments, with a narrow opening in the roof surrounded by a palisade, ladders being used to go in and out.

These models are first carefully built up in clay, in which materials all the details are secured, and are then cast in plaster, a mould being secured by which they are readily multiplied to any extent. They are then put in the hands of the artists, and carefully colored in solid oil paints to accurately resemble their appearance in nature; and in the case of restorations, or modern buildings, all the little additions are made which will give them the appearance of occupation.

The survey is in possession of the data for the construction of many more models, and they will be brought out as opportunity is given. They have also in connection with the ruins multiplied many of the curious pieces of pottery which have been brought back from that region by the various parties connected with the survey.

For Forest and Stream and Rod and Gun.

### TROUT FISHING IN PIKE COUNTY, PENN.

AT a time when it is so much the fashion among sportsmen to wander fast and wander far in search of game fish, game birds and game animals, and when the papers so constantly tell us of marvellous catches and enormous slaughters in lands far distant from those we live in, it has become too much a habit with all of us residents of the Middle States to overlook the advantages with which nature has blessed our own section of this broad land.

When we want quail we think that we must pack our breech-loaders, take a barrel or so of cartridges with us, and tearing loose from all semblances of civilization, go, bag and baggage, to the most primitive districts of the Carolinas. If we would slay grouse, the Western prairies alone are broad enough to gratify our ambition, while the disciples of Walton, in their eager search for *Salmo salar* or *Salmo fontinalis*, lie

away far north to the farthest limits of Maine and Canada, and even penetrate that unbroken forest where the broad Nipigon pours down its stream to the northern waters of Superior.

If there were any necessity for journeys such as these, involving invariably large outlays both of time and money, we were unfortunate indeed; but the reason for them mainly exists in the imaginations of those who condemn the sporting facilities of their neighborhood, without, very often, having tried them. True sportsmen, whose aspiring minds make them long to chase buffaloes and to be chased by grizzly bears, must follow the advice of the lauded founder of the *Tribune* and "go West," but those of a more reasonable disposition can find all that they want in the shape of game without the tremendous journeys that some think unavoidable. To be sure, one can't kill so many quail in Jersey as he can in North Carolina, nor will the trout that he catches in Pennsylvania approach in size their magnificent brethren of British America. But if the birds are scarcer, the skill needed to make a good bag is more justly an object of honest pride, and hackles earn prizes in our own beautiful mountain streams as surely as beneath the gloomy pines of Canada. The truth of the whole matter is, that in this country, where we do everything at a pace that kills, and on a scale so magnificently large that the very size of our schemes make them quickly topple over; where we build railways that are not wanted, to places that do not exist; where petty larceny is no longer known, we have become dissatisfied with moderation in sport as well as in work; and because we can no longer make the same bags of game in a well settled country that our fathers did in a tangled wilderness, we are discontented with our lot, and hurry off to other places, each man racing with his neighbor that he may get to his destination, before shooting in season and out of season, fishing with nets and poisoning streams have sent the game of that region, too, to the happy hunting grounds, where, let us hope, they will be more kindly treated by defunct red men than they have ever been by the live white.

All this is but a long preface to a short story, for this article has been written only to tell those of your readers, who will not skip the rest of it in disgust, of one place at least, within easy reach both of New York and Philadelphia, where, if they are fishermen, they can find game enough to satisfy a moderate minded angler.

The place referred to is in Pike County, Penn., and with its beautiful Blooming Grove Park, is well known, by reputation at least, to many of your readers, though there are numerous spots in that land of "Forest and Stream" that are too little visited by devotees of "Rod and Gun," and the experience of the writer—a frequenter of them—may not be uninteresting to those less intimate than he is with the wonderful resources in the way of game that old Pike possesses.

One great advantage of the place is its accessibility, being only four hours from New York on the Erie Railway, while Philadelphia gains access to its southern border by stage over a beautiful post road from Stroudsburg, a village near the famous Delaware Water Gap. Milford the county seat, a village of about 1,200 inhabitants, noted for the attractiveness of its surroundings, is the best place to make one's headquarters. It is built in a wide amphitheatre, on the bank of the Delaware, from which the hills curve back for a mile or so, as if for the very purpose of leaving the only level ground in Pike County large enough to hold a fair sized town. There are several excellent inns here that are much frequented in summer by those who are in the close pursuit of health and happiness. The village is seven miles south of Port Jarvis, a prominent town on the Erie Railway, and a mail stage connects daily with the morning trains. In the immediate vicinity of the village itself game is by no means so plenty as it was some five and twenty years ago, though there is still admirable trout fishing within a few miles, while black bass fairly swarm in the Delaware, and can be taken in large numbers toward the end of August or the beginning of September.

The best trout stream near Milford is, in my humble judgment, the "Raymondskill," four miles south of the town; for, though there are fewer fish in it than in the more celebrated "Sawkill," which empties into the Delaware through the town itself, those that are caught average higher in weight and are, by long odds, more gamey. The stream itself takes its rise in a heavy and tangled swamp, some six or eight miles back of Milford; but, though its course is short its current is always broad and deep, and there are but few places where a fly cannot be cast with ease and effect. Part of the stream is preserved, or, rather, you are charged for fishing some of it; but a fifty-cent piece will procure all the right of way one wants for a long day's fishing, and if the skillful reader will take his rod some "saft day," as the Scotchmen call it, in early June, and fish from Regnier's down to Loreau's, he will go back to Milford, wet and muddy, to be sure, but well rewarded if eight or ten pounds of the spotted beauties can compensate him for a hard day's work and many trials to his patience. The upper branch of this stream, known as the "Dwarfskill," is well stocked with small trout, and if the angler chooses to fish it, in spite of terrifying tales of rattlesnake dens that lie upon its rocky banks, and is willing to unhook his flies from the trees they are caught in twice out of every three casts; or if he will descend to fish with "wums," he will bring home a large basketful that will average about a quarter of a pound.

The "Sawkill" a glorious stream, some twenty-five or thirty feet broad, and in most places not over knee-deep, as it tumbles along over mossy boulders; is probably the most fished stream in Pike County. Throughout its seven miles course it is picturesque, every inch of it; and though so well fished, its supply seems inexhaustible, and of late years the fishing has much improved, owing to the fact that the farmers charge from fifty cents to a dollar for the right of way through their fields—miraculously to preserve the fish and pay for any damage done to the "craps" by the anglers' boats, really to make the money, and have the additional pleasure of sticking a "city chap."

Penny's farm and Bull's meadows are the best places on the stream, but there is excellent fly fishing as far down as the high falls, and on a suitable day in May or June the angler need have no fear of not filling his basket, though, as before stated, the run of trout is smaller here than in the Raymondskill.

North of Milford, on the Port Jarvis road, there are but two streams of note, the "Vandermark," at the northern edge of the village, and "Ryder's Brook," some three miles further on. The latter is a small stream, heavily wooded, and strictly preserved. Nothing but favor can procure the right of fishing here, money—*mirabile dictu!*—having no effect on the hard heart of the owner, so that this stream is more for the lovers of the picturesque than for the angler. As for the "Vandermark," my advice to any one who thinks of fishing it is similar to that given by Punch a great many

years ago to those about to be married—"Don't!" Though you will catch fish you are absolutely certain to lose your way, break your rod, and spoil your temper in the horrible laurel brakes through which it flows.

South of the village, but still within easy reach, is "Adam's Brook;" but whether called after the first man or one of later birth is, to the writer, an unknown mystery. The lower part of this stream is picturesque in the highest degree, but difficult proportionately, so far as scrambling along it goes, though well worthy of a visit. Here the trout are few but large, while the upper part of the creek is more plentifully stocked with big fellows that are guarded from the ardent angler by a party who lives on the banks, and who threatens all sorts of battle, murder and sudden death to the presuming mortal who dares to trespass on his land. As he is reinforced by a bulldog and a shotgun, his trout are pretty severely let alone, and he has them all to his own selfish contemplation. Further away are "Dingman's Creek" and the Indian Ladder Creek;" but these, like "Ryder's Brook," are meant more to be looked at than fished.

In all of these brooks there are trout, and large ones—great lusty fellows, of a pound—size, and many that will turn the scale at two, and even more, but to catch them both skill and industry are needed. All the maxims of the wisest masters of the art must be put in practice by those who seek a large reward in these well-fished waters. Every trout a foot long in Pike County is educated. For years he has successfully eluded the snares and plots of those who have sought him, and wonderful are the stories of cunning on his part that you will hear from the village sportsmen. Here a tyro can fish from morn to dewy eve without getting anything heavier than a quarter of a pound attached to the end of his line, unless an unhappy club or misguided sunfish be tempted by his gaudy fly. But if a skilled fisherman chooses well his day, he can always be sure of a good catch. May and June are the best months—say from May 10 to June 15, and though the mosquitoes and midges will bother one a little, they are not very bad. In July, when the streams are low, it is perfectly useless to fish, except in the very early dawn or in the gloaming; or, better still, under the bright beams of the summer moon. Then, if the angler casts far and lightly, he will raise big fellows in the still waters of Bull's and Penny's, on the "Sawkill." The best flies, so far as an extended experience of these waters has taught me, are the white-winged coachman—a yellow-bodied fly with red hackle legs and dark wings; and a bright green-bodied fly with mottled gray and black wings and dark legs. These are always taking, but white millers and red hackles are useful adjuncts.

Ten miles back of the town is the "Shohola," a grand stream, wide and deep, here racing over broad rocks and stones, worn by the rushing waters of centuries, then spreading out into long, deep stretches, calm as the smiling sky above. The headwaters lie far back in the Blooming Grove Park, but at this point the fishing is free for all comers who ask for permission to angle at McCarthy's—the one house that is near the falls, below which lie the best stretches for fly fishing. In June, when the water is right, great sport is had in this stream and in Rattlesnake Run, one of its main branches, and very large fish are frequently taken in both. The country is nothing but a wilderness, and is said to be owned by an association of New York gentlemen, who have certainly taken but feeble steps either to improve it or to preserve the game.

In the southern part of the county the three most prominent streams are the Big Bushkill, the Little Bushkill and the Saw Creek, all of them famed, and justly so, for the gameness and size of their finny inhabitants. To fish them an early start should be made—not later than the middle of May if good sport is expected, for when the streams get at all low, all the trout run into the deep, lagoon-like stretches that are so frequent on them, and very sensibly refuse to be caught. The best place to fish the first and the last of these brooks is Portersville, which, though it boasts an imposing name, is today as wild in its primitive beauty as when the Minosink Indians roamed on the shores of the sheet of water by which it stands. A few miles further down will afford better fishing, so far as Saw Creek is concerned.

Portersville, to tell the truth, consists of but one house, and as there is not another within five miles of it, and all around the lovely lake is an unbroken wilderness, through which deer and bear roam at their own sweet wills, it is difficult to say how it ever received its high-sounding title, unless it sprang from the diseased imagination of its first inhabitant, who, rumor has it, was wild enough to believe that he could plant a colony there. The approach to it is over a road that must be traveled to be appreciated. It is essentially *bumpy*, and one's first idea of it is that all the inhabitants of Pike County have, since the time when the memory of man runneth rot to the contrary, used it as a place to pile up their spare rods. Over this trail—can it be dignified by the name of road?—for miles through a country that shows no other sign of the presence of man you must go, till you reach the lake, yelp, in a homely manner, "Porter's Pond." Here you can either board at the solitary house or strike off to one of the streams, and make a camp on its pine-covered banks. If you do the latter—and it will be preferable—remember that in the rare mountain air, May nights are cold, and warm clothing is needed even when the mid-day sun teaches us something of the coming summer. Wisdom dictates that plenty of fire-wood be cut and hauled before daylight darts, and leaves you to the cool, night winds.

In either of these streams, and in the Little Bushkill some eight miles off, as well, you can be sure of trout, and, if you know how to catch them, long and heavy and gamey fellows, too, who will try patience and tackle to the utmost, and make your heart shoot with a pure delight when you have foiled their desperate efforts to escape; and if the charms of a pure and healthy atmosphere can compensate for the absence of "poor humanity," certain it is that a week's camp on the Big Bushkill will give nothing but pleasure and fresh health and vigor to him who is willing to try it.

There are other streams in the county—the Scrventine, the Konesbaugh, the Sloat and many more—but those named are unquestionably the best of all that are not preserved by the Blooming Grove Park Association, and in them all fishing will prove a pleasant task. Nearly all are sufficiently clear of trees to make fly fishing practicable, while some in their size more nearly approach rivers than a brook. Remember, though, in fishing, as in everything else, "*Non sine pulvere, palma,*" and he who goes to the places I have named and expects trout to jump into his fishing basket, will be most woefully disappointed, and will probably consider the writer of this most profound humbug.

Though this article is headed "Trout Fishing," it may not be out of place to briefly refer to the fact that splendid black bass fishing can be had in the Delaware, in every swirl and

rapid of its crooked course; and also to say to lovers of less noble fish than the dainty trout, that throughout the country there are innumerable ponds or lakes, and that in no one of them can the angler fail to catch a string of yellow perch, pickerel and catfish. The latter are wonderfully game, and grow to a size and attain a flavor that would cause the ardent devourer of a catfish-and-waffle supper to open wide both eyes and mouth, could he but see them. *Tout de mieux*, they are not bad fun on a light trout rod; better sport than the more highly reputed pickerel, which, in my opinion, does too much fighting when he is safe on shore, and not enough while still in his native element. The yellow perch, too, are the large fish, easily caught and still more easily eaten when panned soon after their capture.

In conclusion, let me assure those anglers who have neither the time, money nor inclination to take any formidable trip, that they will find exactly what I have described, if they care to follow my gratuitous advice. No great outlay of money is necessary. Board in Milford is good and cheap; \$10 per week. *Pour-boires* will not be rejected, nor can fishing be had simply for the asking on some of the streams, but the prices charged are moderate and well worth paying, as the fact that a charge is made has greatly decreased the number of ragamuffins who fish the streams, and who are invariably just in front of one.

Of the birds and deer of Pike County I here shall say no word, nor of the matchless beauty of its scenery. Artists and poets have been busy with its rooky gorges, its waterfalls and its glens. More skillful pencils and abler pens than those of mine have told its story on canvas and on paper. Only to the fisherman do I now talk, and to him I say: When the spring time comes again, when new flowers are blooming in the fields, when the elegant bushes brightest in the hedges, go where, far from all cares and troubles, nothing but pleasure can await you; go with the flower of May, the arbutus, to the places I have told you of, and I bid you goodspeed. In the words of Old Izaak, "May the east wind never blow when you go a-fishing."

QUILLBER.

For Forest and Stream and Rod and Gun.

## MOOSE HUNTING IN NOVA SCOTIA.

IN the middle of June, '77, I, with two men, went to my old camping ground for the purpose of peeling birch bark enough to repair my winter camp, and build two calling camps for the present October, it being the first of the open season for moose and caribou for three years.

Those who have never peeled a birch tree with a pair of clippers have a pleasure in store that cannot be conceived of. By commencing at the foot of the tree and peeling upward as high as you can reach, by simply making a straight cut down the bark, it immediately bursts open, and, with a very slight touch, falls off in good peeling condition, or, as the Indians say, "moon right." Then, grasping the tree with both hands like a bear, and imagining yourself to be a game rooster, you drive two spurs into the tree and walk up. After going twenty or thirty feet, your legs begin to tire, you fail to drive the spur far enough—then, "stand from under, any one down" there, "as you are sure to go down that tree like "greased lightning." Talk of a greased pole, there never was one to equal it. After peeling, you proceed to roll the bark in bundles from twenty-five to thirty-five pieces in each, and bind with astrong with the made of yellow birch plum tree, in the wood, or with hazel. In these bundles, with nothing to protect them from rain and snow, they will last fifteen or twenty years, and be as good as ever for camp building.

In one day we obtained enough for two camps. In September I selected the ground for building, one and a half miles from where I obtained the barks; carried them to the spot, and began to build them one. This was done by logging up three feet high, ten or twelve feet square, then setting poles from the four corners to a peak at the top, and binding with a stout with, filling in the side poles about one foot apart, and barking up nearly to the peak. The higher the camp the better draught and less smoke, as an open fire is used.

When we require a winter camp, we cover the bark outside with fine boughs about one foot thick, which are held in their place by placing poles against them. When covered with snow it is very warm, the boughs preventing the snow from melting off by the heat from inside.

Camp number two was built four miles from the winter camp; at this place I fortunately found barks in splendid condition, which had been peeled by the Indians fifteen years ago.

The night Ned and I barked that camp I will never forget. It was the 13th of September, we did not reach the ground until dark, then to be met by one of the most terrific thunderstorms I ever heard. As soon as we got coats and packs off our backs we began to bark up. Every nail that was driven was done by the glow from the lightning, it being incessant, and for thirty minutes the thunder never ceased, but rolled up and down the vault in which we were, out across the plains to be echoed back again by the belts of timber in terrific roars, or in soft murmurs from the hills across the river, two miles away. The flashes of lightning, the roar of the wind, the rain that fell torrents on the maple and birch leaves, all conspired to make the sight and sound awfully grand.

My two camps for calling being ready, I had provisions for two weeks portaged into camp, so as to be ready on the first of October. On that day I started down the coast two miles to see some of the old hunters and ascertain about the direction the moose were traveling. When about half way down, on going through a piece of timber, I saw fresh signs of moose on the road, so tying the pony up to a tree, I followed a quarter of a mile into some timber. There, not twenty yards from where I stood, above a little knoll, and between two trees, I could see the ankers of a three years old moose, lying down, nothing but head and neck exposed. I tried my favorite shot—the neck bone, which I nearly saved. In trying to get up, he would fall forward on his head, then down on his side. I did not watch him long before the knife severed the arteries of his neck. After having dressed him, I returned home, only four hours having elapsed since I left, having driven nine miles in the meantime—rather sharp work. The following day Ned and I carried him out to the wagon.

As this looked so promising I left that afternoon for the calling camp seven miles from the nearest settlement; but the wind blowing until late, I could not call, so returned to camp. Being anxious about the morning calling, I arose frequently in the night to look at the weather. At three in the morning I called Ned and at four I left the camp.

After walking a mile and a quarter by the light of the moon

Natural History.

CHIMNEY SWALLOW. CHIMNEY SWIFT.

*Chaturus pelagicus.*—Baird.

ACCORDING to Baird, Brewer and Ridgeway, the specific characters of this species are as follows: "Tail slightly rounded, sooty brown all over, except on the throat, which becomes considerably lighter from the breast to the bill; above with a greenish tinge, the rump a little paler; length, 5.25; wing, 5.10; tail, 2.15 inches. It is distributed throughout the Eastern United States and British Provinces, from the Atlantic Ocean to the fiftieth parallel of north latitude. It probably extends West to the slopes of the Rocky Mountains, as it has been taken as far West as the Bijoux Hills in Nebraska.

"It arrives in Eastern Massachusetts the last week in May, and departs for the South about the first of September. Soon after their arrival they commence to build their nests, which are very neat pieces of architectural work. The nest is composed of small twigs of uniform size, interwoven into a semi-circular basket. In selecting the twigs with which to construct the nest, the swift seems to prefer to break from the tree such as are best adapted to its wants, rather than to gather those already scattered upon the ground. This is done with great skill and adroitness while on the wing. Sweeping on the coveted twig, somewhat as a hawk rushes on its prey, it parts it at the desired place, and bears it off to its nest. This fact is familiar to all who have attentively observed its habits. Each of these twigs is firmly fastened to its fellows by an adhesive saliva, secreted by the bird, and the whole structure is strongly cemented to the side of the chimney in which it was built by means of the same secretion. When dry this saliva hardens into a glue-like substance, apparently firmer even than the twigs themselves. In separating a nest from the side of a chimney, I have known portions of the brick to which it was fastened to give way sooner than the cement with which it had been secured."—*Dr. Brewer.*

Oftentimes, however, the nest becomes so moistened by long or heavy rains, that it falls, together with its contents, to the bottom of the chimney. The young birds cling to the sides of the chimney with their strong claws, and often escape being precipitated to the bottom of the chimney with the fractured nest. Even when undisturbed the nest soon becomes too small for the young birds, and they climb to the top of the chimney, where they are fed by their parents till they are able to fly.

Immense colonies often inhabit the same chimney, especially if it be one with many flues. In May, 1868, a chimney was taken down in a village known as Putnamville, in Danvers, Mass. It was a large chimney, connected with a shoe factory, which had not been used for four or five years, and it contained upward of two hundred nests.

Its original breeding-place was in hollow trees, but as the country became settled, and the forests cut down, it has changed its habitation to chimneys, where the majority now breed. In wild portions of the country they still breed in partially decayed trees. Mr. George A. Boardman, of St. Stephen, N. B., found them breeding in this manner as late as 1863, when he found them nesting in a hollow birch. He also met with a nest built against a board in an old winter logging-camp at a distance from any chimney. It was found to be quite abundant in Kansas by Mr. J. A. Allen, breeding in hollow trees in the forests chiefly.

Its nest is occasionally found in other situations. Perhaps the birds are taught by their experience to look for more secure places than chimneys in which to breed. Mr. John H. Sears notes the breeding of the species at Beverly, Mass., in the *American Naturalist* for December, 1873. He says: "About June 15, 1871, a pair of chimney swallows (*Chaturus pelagicus*) commenced building a nest in the barn in close proximity to the nests of the common barn swallow (*Hirundo lunreorum*). The nest was finished by the 4th of July, and four eggs were laid. In 1872 there were two nests built in the barn, and this year two more were built, one of which I took down on July 8 and sent, with four eggs which it contained, to the Peabody Academy of Science. The nest that I removed was replaced by a new one about the 20th of July." Another instance is cited by Mr. C. Hart Merriam in the same magazine for June, 1874. It was in Lewis County, New York. Mr. Frank H. Nutter, of West Roxbury, informs me that while on a visit to Lancaster, N. H., in June, 1877, he found a nest in the end of a barn, near the apex of the roof. The nest was of the typical form and was attached to the boarding. It contained eggs when found. The birds were observed to pass in and out through a knot-hole in the boarding.

In its habits it is crepuscular, preferring dull, cloudy weather, early morning, or the latter part of the afternoon in which to search for the insects which form its food. It is undoubtedly influenced by the abundance or scarcity of food, as it is occasionally observed pursuing its prey in the glare of noonday. When they have young they are often obliged to keep up their search into the night.

The eggs vary in number from four to six; they are pure white, without markings, sub-elliptical in shape, and vary in size but little, measuring .75 to .81 of an inch in length, by .50 to .55 in breadth.

The chimney swallow raises one, sometimes two, broods here in a season.

Before migrating they collect in large flocks. During the first week in September of the present year a flock of several hundred had their rendezvous in a large chimney. Here, collecting just before dusk, they would circle around the chimney, and pass down into it in a continuous stream till the whole flock had disappeared. They gathered thus for three days, and were not seen afterward.

ARTHUR F. GRAY.

Danversport, Mass., Oct. 13, 1877.

AN ANTEDILUVIAN MONSTER.

AN article with the above heading is now revolving, meteoric like, through the vacant spaces of newspapers. People crave for mastodons, and behemoths, and their longings must be satisfied. Take the ordinary newspaper reader; he may be devouring a singularly horrid murder, or a rascally embezzlement, but let his eyes catch the notice of some bones dug up anywhere and he is ready in the most guileless way to swallow a mammoth at a single gulp. Of course we by no means wish to discredit the statement made, that in Henry Woodward's ranch in Indian Territory, near a mineral spring, the remains of some huge brute were discovered. The locality indicated is just the one where a creature of past ages may have been mired. But what we must smile at is the credulity which would allow any one to suppose that because, as per statement, other bones were found resembling those of a man, that it was the mammoth that had swallowed the human being. That well-stocked arsenal of flint weapons described as having been discovered with the human remains, must be taken with a great deal of salt. It is by no means impossible to believe that prior to the destruction of these huge beasts man existed. Traces have been found of man's handiwork, even in lower geological strata, or underneath the bones of extinct animals. There is every reason to suppose that the age of man is older than that of many of the so-called antediluvians. Still, up to the present day, we may affirm that, with the exception of one single skull, over which there has been no end of wrangling and discussion, and whose age is not yet well established, no positive remains of man contemporary with the mammoth have been discovered. Of course, the argument that man did exist then is as strong as need be, but his bones have got to be exhumed. Possibly "dust to dust," that great law of God, as far as man's scaffolding goes, has prevented it.

The conclusion arrived at, that it was the beast who devoured the man, is a ludicrous one. These monstrous brutes, as far as we can make out, were vegetable feeders. Suppose, to carry out the argument further, the bones of some smaller animals were found near the man. Should we jump at the conclusion that the man had swallowed a rabbit, and then that the mastodon had gobbled up the man and the rabbit too? It would be well for newspaper scientists to have recalled to them a very old story, attributed to Cuvier. An awful creature, with horns, cloven feet and a tail, once met a timid naturalist, and the awful beast, flourishing his tail and lowering his horns, bellowed out, "I am going to eat you up." "I ain't a bit afraid," answered the naturalist, suddenly picking up courage. "Horns, hoofs and a tail proclaim you to be herbivorous and not carnivorous. Clear out of my way and let me go on collecting my specimens."

We are, then, perfectly willing to accept all about the tusks, and how they crumbled as soon as they were exposed to the air. We even credit the flint arrow-heads and the stone knives, a whole bushel basket of them, but the big Injun, "eight feet long, with his spinal column attached to a cranium, and his ribs and other appendages," we cannot digest any more than the antediluvian monster.

PARASITES ON THE HOUSE FLY.

ROCK ISLAND, Ill., Oct. 15, 1877.

EDITOR FOREST AND STREAM AND ROD AND GUN:  
Is it generally known to entomologists that the common house fly is sometimes infested with parasites? I am not as well "posted" in insectology as I should be, perhaps, my study of animated nature having been mostly devoted to those branches which furnish more imposing specimens, and it may be that a fact which is new to me, will have a "stale" appearance to most of your readers. Nevertheless, I venture to send you the following, which had for me all the interest of an original discovery, with the request that if the fact is already known you will give me any other information you may chance to have upon the subject.

Yesterday afternoon, while examining a common fly of medium size with a small microscope I noticed that it was covered with a number of small insects which were utterly invisible to the unaided sight. I counted seven of them, four of them being huddled together in a bunch, and the other three running separately over the fly's body. They all appeared to confine themselves to the under part of the body where the legs are united, occasionally running out upon these limbs. The outlines of the bodies of these parasites, looking down upon their backs, was of an oblong shape, the length being nearly twice as great as the width. The bodies themselves appeared to be round and plump. They were covered with what seemed to be a smooth, hard shell or skin, of a transparent yellowish color, reminding me somewhat of amber. Each had three claw-like legs on each side of its body, while its head or snout was armed with a pair of sickle-shaped mandibles, which opened sideways. I could not get a good view of their heads owing partly to their movements and partly to the low power of my lens, which only magnifies ten diameters. Judging from their apparent size, I should place their actual length at about 1-150ths of an inch.

I afterward caught and examined some score of flies, but could find no trace of the "varmint" on any save the first. I do not remember ever seeing the subject mentioned, and if th

through timber and scrub, I arrived at the meadow at which I proposed to call. Standing at its edge, I listened for five minutes; not a sound, not a leaf stirring, not a breath of wind, nor a bird moving. Bringing the bark to my lips, I gave the first low, soft, timid call, but the way it echoed up and down the woods seemed more like a roar. Five, ten, fifteen minutes pass, not a sound, save my call, mocked by that bird of ill-omen, to huulers the carrion jay. This time I repeat my call more loudly and clearly; the same echoes multiplied and louder, nothing else. "Nothing, Ah! what's that, a squirrel budding? No, not before dawn. Then it must be a horn against a tree; it can't be a young sneaker, for he would not dare make that sound; nor an old buck with cows, for he would have answered once at least; then it must be an old solitary buck. Yes! listen, as he comes head up trying to avoid nothing, and with his powerful swinging step. I can hear my heart beat, but I try to keep cool, yet my ears keep following that welcome and louder growing sound. He must have come at least a half mile since I first heard him. Ah! there he is, and I see the tips of his antlers, two hundred yards off, among the alders. Still he comes, but now out of sight in one of his swervings. Will he come nearer? Yes, a few steps; there he paces again for a minute. I dare not call, but I place my foot in the moss, and make a sucking sound like that of a cow stepping, a few sharp strides and he is in sight, head and antlers only, sixty yards off. O, what a poor chance to shoot, standing face to, yet I must. Up goes the rifle; but what's the matter, I can't shoot, my heart beats too fast, nonsense! I steady myself with a shake. In the meantime he moves his head with that grand swerve sideways; now the eye! One glance along the sights, at that piercing black savage orb. A cloud of smoke, and a black mass plunges forward, turns, and springs back on his tracks. Above the alders I can see the tips of his antlers, judge for his heart and fire; still he goes on and out of sight. With all the speed I can, I cross the wet meadow and stand in his tracks; for an instant I listen. Ah, that cough! Missed the heart but shot through the lungs. I spring forward and get a glance at him through the alders, and fire for the neck bone. Missed, by half an inch too high. Then the fore leg must go. I fire at the near one as he raises it to step, but too far back, it passes through the thick of the shoulder cutting off two ribs, breaks the leg on the opposite side; then down he goes with a crash, carrying everything with him. I draw the knife and spring forward, but with his dying groan I can hear the blood gurgle in his lungs, so it is of no use to cut the throat.

I only stop a few minutes to examine him—the first shot entered the eye and passed down the neck. He is a beauty, in good condition, weight about one thousand pounds; four feet across the antlers, which have beautifully curved palms. Then I start back to meet Ned, as he promised to leave camp at daybreak with an ax. Before long I see him coming, hat in hand, "covering ground" pretty fast; as soon as he can speak he wants to know what I fired at. "A fox in the meadow." "You don't often fire four shots at a fox in an alder meadow. You've shot and missed a moose." I then showed him my hand with the blood on it. "Ah! you have him." "Yes, a little fellow." Then came an array of questions; but I don't say much, holding back, with a selfish pleasure, the surprise in store for him.

"Here is where I stood and called; here where he stood when I fired the first shot." I show him spots of blood as we follow his tracks.

"But how far did he go?" asks Ned in surprise. "Two hundred and fifty yards."

"The devil!"

"No, the moose," as I point him out lying among the alders.

"A little fellow! By heavens, ain't he a beauty! ain't he a rouser?"

"Come now, Ned, plenty of work ahead of us to-day; this fellow to dress, a road to swamp, two days to make, skin of head and the antlers to carry out six miles."

The next day's work is a hard one. We leave home at three in the morning with a man and two horses to help, and do not reach home before nine o'clock in the evening.

After dividing among my friends we have but little left. On Saturday I try a little nearer home; leave at noon; go three miles back so as to get to leeward of the ground I wish to examine. Here I soon find fresh tracks, which lead to a thicket of firs and maples. There he lies; then he must be called out, as I would only start him by entering. I give one call, this brings him on to his feet not thirty yards off, where he stands answering in soft grunts. One glance along the sights at his heart and I fire; but he never moves a muscle. A second shot through the lungs and down the hill he goes at a fearful gait. Standing still I follow the sound until I hear him fall. On coming up to him I find a nearly pure bred elk, five years old, in a good condition, with a very pretty pair of antlers.

The reason he did not move at my first shot was that the ball had completely severed the principal artery of the heart. In nearly every case where I have shot moose or caribou through the heart they have stood as if never touched. I have noticed in your paper a discussion as to the dropping of antlers. About deer I know nothing, but of moose and caribou, and I can assure any one that they have no secret places in which to hide them, nor do they seek to do so. I have found them in all kinds of places, but never covered except with fallen leaves or spills from firs. I always in the autumn find more horns than animals—some partly rotted away, but the majority eaten by squirrels, porcupines or martens. Old moose drop their antlers as early as the middle or last of November; young ones sometimes not until the middle of March.

This part of our county has sportsmen from all parts; some few from New York, but they have poor success in calling because of the weather, and in creeping because they do not know how.

Juggens Mimes, Nova Scotia, Oct. 13, 1877.

—From the *Spirit of the Times*, of Oct. 6:

THE SPORTSMAN'S GAZETTEER.—Under this title, Mr. Charles Hallock, editor of the *FOREST AND STREAM*, has published an elaborate work, of nearly 900 pages, which is designed as a general guide to the principal game resorts of this country, illustrated with maps; together with instructions in shooting, fishing, taxidermy, woodcraft, etc., and copious information about the game animals, birds and fishes of North America, their habits and various methods of capture. It is a most important and valuable contribution to sporting literature, meets a want that has long been felt, and its author was eminently qualified to prepare it. In an advertisement will be found other particulars about the book.

fact is known I think it cannot have been very widely published. Respectfully yours,  
CHARLES STEPHENSON.

[The bare fact that the common house fly is infested with parasitic insects has long been known, but we believe that the subject has not been very fully investigated. The commonest of the parasites is a red mite known as *Asotoma parasticum*, (for figure see Riley's Seventh Annual Report of Noxious and Beneficial Insects of the State of Missouri, p. 177). Another species infests the locust (*Calopteryx*) and destroys great quantities of them. House flies also suffer from a fungoid parasitic growth which often causes death. We hope that our correspondent will continue his investigations in this matter, and that others of our readers will contribute any information which they may have bearing on the subject. We cannot tell from the description what our correspondent's species is.—Ed.]

HORNED DOE ANTELOPES.

NEW YORK CITY, Oct. 15, 1877.

EDITOR FOREST AND STREAM:

I have recently had brought to my notice the head of a female antelope which had a small pair of horns. The animal was killed in Nebraska, and my informant—a perfectly trustworthy person—assured me that she had not bred the spring before she was killed, and that, although quite old, as shown by her teeth, she had apparently never produced young. The horns in this specimen are small, a little over an inch in length, sharp and straight, inclining backward very slightly.

Will you tell me whether these horned does are common, and whether the horns ever grow to a large size—that is, as large as those of the bucks? Do the horns of the doe ever bear prongs, and are they shed as are the bucks? When does the net take place in this species?

An answer to all these queries will oblige, yours respectfully,  
BLAKE.

Horned does of this species are not very uncommon, and are, we believe, always barren. During the past autumn we killed or were present at the death of several, none of which gave evidence of ever having given birth to, or suckled, young. We believe that the proportion of barren does among antelope is greater than among deer, elk or buffalo. The horns on these barren does are generally quite small, though in one instance which came to our notice they were about three inches long. They sometimes have prongs, but these are usually so small that they can scarcely be seen. One killed in Nebraska less than a month ago has on each of the horns, which are less than two inches long, a little knob where the prong should be. We would refer our correspondent further, to a Report of a Reconnaissance from Carroll, Montana, to the Yellowstone Park and Return, by Col. Wm. Ludlow, U. S. Engineers. In the Zoological Report, p. 70, the following statement is made:

It is well known that the female antelope sometimes has horns and is sometimes without them. Observations extended over several years, together with the testimony of several plainmen, among them Charles Reynolds, a hunter of seventeen years' experience and a man of close observation, led me to conclude that the horned does are always barren. I have myself examined a great number of doe antelopes, with and without horns, and have never seen one of the former class that gave evidence of having produced, or being about to have, young. Nor have I ever seen a hornless doe that was barren. The horns on the does vary from one to three inches in length, and are soft and easily bent. Their length no doubt depends in a measure upon the age of the animal. Those that I have seen lack the hard, bony core which is found in the horns of the perfect males.

We should be glad to receive further information on this point from any of our readers. The rutting season is in October.—Ed.

TOO MANY MONKEYS.—That influential British merchant did not write a clerical hand. What was worse, his spelling was not first class. There was a ship of his trading with the Indies. He wrote for two monkeys, and spelt it *too*, and forgot to cross his "t," so when the intelligent Bombay correspondent read the letter it was just 100 monkeys. As the order did not designate any peculiar kind of monkey, and the commissions were assured, just one hundred assorted monkeys were collected and duly forwarded. It was a mixed cargo which raised high-jinks at sea. As the monkeys could not all be caged the sailors had a time of it. You couldn't leave a thing loose on that ship, not even the anchor, that half a dozen monkeys did not have it, all at the same time. They stole the telescope, broke the quadrant, smashed the compass, ruined the chronometer, dropped the ship's log overboard, and all got drunk on the sailors' grog. They reefed the bob-stay, catted the shrouds, back-stayed the marlin-spikes, close-hauled the capstan, jury-rigged the calaboose and keel-hauled the jib-boom. That ship, according to last accounts, has arrived at Liverpool flying a signal of distress. Anyhow this is about the gist of an amusing story in the *Hartford Times*.

—Giles Collins was his name, and Giles is a martyr. A poor laborer was he with a turn to bugs. Five lively Colorado beetles did he imprison in an empty beer bottle. The English magistrates fined him five shillings. Moral: It ain't good in England to banker after the Colorado beetle.

SINGING MICE AGAIN.—A valued correspondent sends us the following notes on singing mice, which are certainly very interesting:

From time to time I have seen in FOREST AND STREAM accounts of singing mice, and have noted that in your editorial comments you invite further information on the subject.

A few years since I lived with my family in the immediate neighborhood of New York City. The library, or family room, opened with folding doors into a conservatory, where, suspended from the ceiling, hung several cages of canaries. These cages were raised or lowered by cords passing through pulleys in the ceiling, and were secured near one of the shelves holding the plants. One evening, while sitting alone in the li-

brary, I heard from the conservatory a low warbling, like that of a young canary. I was surprised, for I knew that there was no young canary there, and, watching, I presently saw that the notes proceeded from a mouse which was running about in the bottom of the cage, eating the bird seed. The bird was sitting quietly on his perch, perhaps asleep.

On subsequent occasions I saw two or three of these little warblers at a time, sometimes in the cages, sometimes on the flower shelves. I have frequently seen them run up the cord and down into the cage. Once I crept under the cage, and, showing myself, put my hand on the cord where mousey would have to pass if he attempted to escape. He was puzzled; stopped, warbled, and then retreated into the cage again. They were wonderfully fearless for mice, though they wouldn't quite consent to be caught.

I presume they were common mice that from constant association with canaries had learned to sing. None of them acquired the shrill notes of the canary, only a low, sweet warble.

—Additional remains of the huge fossil bird, *Tethornis emarginatus*, have recently been found at Shoppey, England. These fossils make it appear that the bird in question had enormous wings, and was closely allied to, though much larger than, the albatross. Prof. Owen is engaged in the preparation of a paper on the subject, in which he proposes to substitute a more appropriate name for the one given by Bowerbank. The bones were found by Mr. W. H. Shrubsole, of Sherness-on-the-Sea.

THE CAPERCAZIE IN NORTHUMBERLAND.—It is well known that this fine bird, originally indigenous in the British Islands, became extinct, and was re-introduced into the Scottish Highlands some forty years ago by the late Marquis of Breadalbane. Earl Ravensworth has recently been endeavoring to naturalize the capercazie in large tracts of pine woods in Northumberland, on the edge of moors and wild crags, furnishing various berries which form its favorite food. In 1872 a cock and two hens were reared, but the male got destroyed. In 1873 two settings of eggs were hatched, but, owing to a wet summer, all the young birds perished after nearly arriving at maturity. In 1874 four fine birds were reared to their full growth, one of which, a male, still survives. In 1875 fifteen chicks were hatched out of twenty eggs, and three cocks and four hens grew to maturity. But the stock has become reduced to five individuals, three males and two females, all in good health. It appears that a difficulty arises from some deficiency in diet or conditions, which is at present unknown. Although extremely wild and shy by nature, and flying long distances, capercazies are yet most indolent and unwilling to move from places to which they are familiarized. Their color assimilated very closely with the Scotch fir, so that it is exceedingly difficult to discover the male bird when seated on a branch.—*Nature*.

ZOOLOGICAL GARDEN AT CALCUTTA.—It seems very unfortunate that the attention once paid to the collecting of animals and their maintenance in Calcutta should no longer be considered possible. The general character of the climate and the wonderful variety of animals we should have supposed would have made the Calcutta collection the first in the world. The former Viceroy of India, Lord Northbrook, took the Zoological Garden of Calcutta under his particular protection, but it seems that his successor, in view of the depletion of the Indian Treasury, has notified the Calcutta managers that they must no longer look to government help. It is a pity that the best position in the world for keeping and studying tropical animals should be abandoned for lack of a small support.

THE RED-HEADED WOODPECKER AS AN EGG-SUCKER.—*Editor Forest and Stream*.—The statement of your correspondent in regard to the common red-headed woodpecker killing young ducks reminds me of an incident that occurred last May at my gardener's place near the city. A hen turkey's eggs were pierced and emptied by some means unknown to my German. Six eggs had been "tapped" and the contents extracted. When the turkey went to her nest the seventh time she was watched. While upon her nest a red-headed woodpecker was seen to fly to the apple tree immediately over the turkey. The red-head chattered and dodged back and forth upon the tree until the hen moved off her nest, when immediately the thief hopped down from his hiding place and perforated the smooth egg. He extracted about two-thirds of the yolk, and then flew away. He certainly displayed modern taste for egg-sucking.  
ARROW.

Indianapolis, Oct. 29, 1877.

WHAT RED HEAD DUCKS EAT.—A week or two ago Dr. William H. Keener, of Baltimore, sent us the contents of the craw of a red head duck which he examined. They were composed of seeds and minute shells of species that we could not determine. Professor Eaton, of New Haven, however, to whom a part of the specimens were sent, says "that the seeds are undoubtedly those of *Ruppia maritima*, a slender salt water weed found in shallow bays along the coast from New England to Florida, in the Onondaga salt springs, and along the Northwest American coast. He has seen it plentiful at Watch Hill, R. I., and at the mouth of the Connecticut River." We are now endeavoring to determine the *forminiferous* and other shells in it, and will endeavor to give a more exact locality where the ducks were likely to be feeding when they ate them. The questions raised by Dr. Keener have initiated investigations which are likely to lead to important discoveries concerning the habitat and habits of the red head duck. We wish other correspondents would bring like discoveries to our notice.

ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDENS FOR WEEK ENDING OCT. 31, 1877.—One sparrow hawk, *Falco sparverius*, presented; one golden eagle, *Aquila audax*, presented; one little black headed duck, *Entellia affinis*, presented; one great horned owl, *Bubo virginianus*, presented.  
ARTHUR E. BROWN, Gen'l Sup't.

—Thetis, the mother of Achilles, plunged the future hero into the Styx to make him invulnerable to wounds. This typifies the importance of bathing to children as a safeguard against ailment. But not only bathing, but the accessories of bathing are of importance. To use a pure soap is most important. The new article, B. T. Babbitt's Toilet Soap, therefore, fills a most important purpose, for it is perfectly pure and delicate. No artificial perfume is needed to add to its fragrance, or to hide impure materials.—*Lada*.

Fish Culture.

ARRIVAL OF MR. MATHER IN ENGLAND.—Our special correspondent at Southampton, England, writes, under date of Oct. 24, 1877, as follows:

Learning of the shipment of a large lot of salmon eggs in the Mosel, forwarded by Professor Spencer F. Baird, U. S. Fish Commissioner, for distribution in Prussia, Holland and Germany, I ran down to Southampton this morning to see Mr. Mather, and was fortunate enough to be on the dock as the fine steamer arrived. I soon found Mr. Mather, who was in the best of spirits, and none the worse for the trip. Of course Mr. Mather's great anxiety was in regard to his charge. I was shown the eleven unpacked crates, and the refrigerating box of his own invention, in which I could distinctly see the eggs. Mr. Mather is quite sure that the eggs are in good condition.

Mr. Frank Buckland will soon be here, and will witness the opening of the two crates intended for him. Two crates are to be left in Southampton for France, and the others are for foreign distribution. Everything seems to be going on well, and it looks as if the first great step of introducing our American salmon in the Old World is fairly accomplished.

WHITE BAIT.—The old discussion is going on in England, "What are white bait?" Mr. Francis Francis, of the *Field*, says: "They have kept something which has grown into a herring, but that something was not a Thames whitebait." Mr. Francis, we think, insists that the small fry caught and allowed to grow in the Brighton aquarium, was not a true Thames whitebait. This leading authority thinks that there may be some small herrings mixed up with the whitebait, not that the white bait *per se* is something else. Another correspondent "is quite certain that white bait are not young herrings," because "herrings never spawn in any water but pure sea water, and are never caught in brackish or sewage water; and white bait are only found in brackish water, often mixed with sewage." White bait are interesting to us, as we have heard more than once, on the best authority, that these little fish could be caught in the vicinity of New York. We may state at the same time that our leading ichthyologists are quite positive that white bait are young herring. We trust soon to obtain some reliable English white bait, and if we cannot feed with Prime Ministers on these dainty fish at Greenwich we shall indulge in the drier amusement of doing our best to discover what these puzzling little fish really are.

WHEN YOUNG SALMON SHOULD BE TRANSPORTED.—A very important question has been asked of us, which is as follows: "Quite a large number of the eggs of the California salmon have been received here. These eggs were to have been sent direct to Vermont to be hatched out there, in order to stock a piece of water in that State. From some cause the eggs are mature, and the fish are now ready to leave the ova. The necessity arises then of hatching them, out here. The question is, when the fish appear and are strong enough, ought they to be transported to Vermont at once, or must they be allowed to acquire a certain size here before moving? Of course, if allowed to grow, the trouble and expense of moving the fish to Vermont would be very much increased."

The answer to this question, is, that just as soon as the young fish have absorbed the yolk sac—say in about four weeks (the time being longer or shorter according to circumstances)—the fish should be sent to their home. Notwithstanding the risks of the ice and change of temperature, the young fish would be found capable of braving the rigors of the season in the Vermont waters. The reason explained by Mr. F. Buckland is quite a curious one. When the young fish emerge from the egg they are endowed with a certain instinct, the one perhaps implanted in all creatures—that of self-preservation. Almost immediately they begin to understand intuitively who are their foes. If young fish are hand fed and cared for, this instinct in a short time becomes, as it were, blunted. Of course, with such tiny things as young salmon, which have hardly passed their embryonic state, their lives are mostly due, exposed as they must be to predatory fish, to their ability to escape. It has been shown that young salmon, which have been cared for and fed, when put into water where there were even minnows, were immediately eaten up by the minnows. The little fish seemed to have forgotten their instincts, and were sacrificed in their innocence. Young fish, then, when it is intended that they should shift for themselves, must as speedily as possible be placed in such elements as may be natural to them.

Having consulted on this interesting subject what is certainly the highest authority in the country, we believe we are enabled to answer satisfactorily a question in fish culture in regard to which there has been some uncertainty.

AN ACRE OF WATER.—Speaking about the value of an acre of water devoted to the propagation of fish, the *Ohio Farmer* says:

We write from knowledge in this matter, having in earlier days caught many a "nice string" of fish in a pond that was formerly a swamp. During one dry August the owner, with two of his boys, went in it with a plough, scraper and shovels, and in a short time had a pond of nearly an acre in extent. This he stocked with fish common to the sluggish streams of the neighborhood, and procured some at a distance, and for years thereafter it proved to be the best acre on the farm.

FISH CULTURE IN NEW ENGLAND.—We are pleased to copy from the *Maine Farmer* the following words of encouragement:

The efforts made to restock the rivers of New England with salmon and other migratory food fishes are now meeting with

Woodland, Farm and Garden.

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, SEC. N. Y. HORTICULTURAL SOCIETY.

NOVEMBER.

Next was November; he full grosse and fat  
As fed with fard, and that right well might seeme:  
For he had been a-fatt'ing hogs of late,  
That yet his brows with sweat did reek and steem,  
And yet the season was full sharp and breem;  
In planting eke he took no small delight:  
Whereon he rode, not easy was to deeme;  
For it, a dreadful Centaure was in sight,  
The seed of Saturne and fair Nais, Chiron hight.

—SPENCER.

ORCHIDS AS FLORIST'S FLOWERS.

IT has recently been mooted in the *Florist*, England, by Mr. Anderson, the well-known "Meadow Bank Orchid Grower," that Orchids are florists' flowers. Notwithstanding, he says, the grotesqueness of form and feature of the general run of Orchidaceous species, they are being fast elevated, as the florist would say—degraded, as the botanist might say—to the rank of florists' flowers. However startling the assumption may at first sight appear to many, it can, nevertheless, be supported by irrefragable evidence. Take any popular species, and what do we find? Why, this: that the variety which will best stand the severe scrutiny of a florist's eye is by far the most valuable. The same law that enacts that form, substance, color and general symmetry shall take precedence over the general run of florists' flowers holds good among all popular Orchids. Any one can find this out by trying to purchase the rarities among the varieties of species. The fact is that so innumerable are the importations of recent years, and so very numerous the varieties of species, that two-thirds of all the poor varieties—poor from a florist's point of view—are all unsaleable; at least, if people buy them, it is only to get rid of them as soon as possible after they have proved themselves. When he began cultivating Orchids, he was most anxious to secure anything in the way of a species, no matter what. Nowadays, collectors find it to be both to their interest and satisfaction in every way to secure first-class varieties, many times at whatever cost. Take *Odontoglossum* for instance, no matter whether it be *Alexandrae*, *Pesatorei*, *triumphans*, *grande*, *citro-mum*, *cirrhosum*, or any down the line of species in any catalogue, some sorts will bring as many dollars at a sale, if they be known to be super-excellent, as others will bring cents. And so it is with *Cattleyas*, with *Vandas*, with *Brides*, with *Saccolabiums*, and with every popular Orchid. It may be form, or substance, or color, or exquisite symmetry, or all combined; but the individual that possesses all these in the greatest degree will be run upon by the savans in the matter of flower-value. "I have therefore," he adds, "to congratulate the General Assembly of florists for the good work they have done, are doing, and doubtless will continue to do, in bringing together the above races of plants, from the commonest border flower to the most aristocratic Orchid, so as to subject them all to severe eye-criticism. It is only in this way that the best can be taken and placed, and the worst left and uncultivated." There is doubtless much truth in this view of the question, notwithstanding the sneers with which florists' flowers are sometimes visited.

CALAMAGROSTIS ARENARIA.

SOME grasses which are of little value to the agriculturist have yet their uses, and many of them perform most important parts in the economy of nature as well as supply various wants to which man is subject. This is true of *C. arenaria*, a grass which grows by the seashore, more especially on sand beaches, both in Europe and America, and is known by its strong running roots, harsh leaves and compact spikes of neatly white flowers, which are objects of much interest to the collector of grasses for winter ornaments, as well as to the botanical student. But it is more for its utility in fixing shifting sands, and thereby forming barriers against the encroachments of the sea that it has been esteemed both in Europe and America. So fully has this property been understood that its destruction has long been prohibited by legislative enactments, in some countries in Europe, and I believe measures somewhat similar have been resorted to in this. And nowhere, perhaps, have more favorable results been obtained from planting it than at Cape Cod, where inroads of the sea have in some places been stayed, and the streets of a city once liable to be covered with drifting sand now entirely exempt from this scourge.

But examples of this character are to be met with nearer home, and nowhere, perhaps, in a more striking manner than on the East Haven shore, Conn., where for a distance of about a mile a huge embankment of sand has been reared, just above tide level, and backed by long stretches of swampy flats, which might in some parts be overflowed, or encroached upon by the chafing of the tides, were it not for this natural barrier. This ridge has been formed by drifting sand finding a resting-place among the grass, and as it has increased in height, the grass also has continued to rise and maintain itself atop.

We have also seen this grass performing good service on ancient river terraces where steep precipices lead up from river beds to cultivated fields, which but for the roots being woven into a net work sufficiently strong to keep the materials in place would, from the action of the weather and other causes, tend toward a lower level.

These facts suggest the advantages to be gained by planting the *Calamagrostis* where it does not now exist—on the banks of rivers or other places exposed to the innovations of floods, or where runs might be caused by heavy rain storms. We have also seen sand flats in good neighborhoods which might

be made to look green by the same means, and at some future day so fertile as to produce valuable crops, both for man and for beast. And all this from the operation of causes which have effected great and important changes in the past, not only in raising embankments to arrest the encroachments of tides, but in elevating brackish meadows to a level more conducive to the health and prosperity of whole communities. And so we never look upon such places, bearing their loads of rank grasses and sedges, without being impressed with the greatness of those forces which have hitherto wrought and will continue to work through all time for the accomplishment, we doubt not, of great and beneficent ends. A. VEITOU.  
*New Haven.*

MUSHROOM HOUSES AND MUSHROOMS.

MR. EDITOR—Your article on mushrooms was excellent and most seasonable, the points well taken and the advice good; yet, with your permission, I would like to add a few words. No crop is more likely to give satisfaction in a family than a good supply of mushrooms. They can be used in so many ways, their flavor is so grateful in so many dishes, and their culture so easy, that they should be grown by every one who can find room and time enough to attend to them. And if we consider the fact that mushrooms spring up most abundantly on old pastures, more especially in a season like this, while the earth retains its heat and the nights begin to lengthen and become cool, and are highly charged with atmospheric moisture, we have some guide to their treatment under artificial conditions. Without this kind of atmosphere, however carefully the beds are made and attended to, the results will not be satisfactory, more especially as a good deal of fire heat may be required to keep the temperature up to its proper height. The best of all situations, when available, in which to grow mushrooms, are underground caves, such as supply the Paris markets with such vast quantities. [See following article—Ed.] These conditions are a still humid atmosphere, and where a succession of beds is constantly in course of formation, the air becomes charged with ammonia, which wonderfully assists the growth of the young mushrooms. When such situations are not available, the best plan for securing the required amount of humidity is to keep a heap of fresh fermenting manure in it, and frequently turn it over. This will be found superior in effect to any evaporating trough or steaming apparatus, and the beds will continue in bearing for an unusual length of time. The method of making the beds was described so fully that I need not enter upon it further than to say that we mix a good quantity of fresh loam with the stable manure, which moderates the heat and makes it more lasting. A temperature in the beds of 80 deg. at spawning time, and an air heat of 55 deg., we find to suit admirably. Another and important point is a good clayey loam with which to earth up the beds. This should be beaten down as hard as mallet and spade can make it, and wetted so that a smooth spade will slide over it. One of the many advantages of a firm surface to the beds is that the mushrooms form on the surface, and are easily gathered without injury to the bed; but with soil of a loose texture the majority will form on the manure, and cannot be gathered without disturbing the growth of many of the successional ones. J. G.

MUSHROOM-GROWING IN PARIS.—Mushroom-growing, as it is carried on in some parts of France, is one of the most extraordinary examples of culture in the world. In the vicinity of Paris are extensive stone-quarries, long since abandoned, from which the stone has been extracted as coal is obtained, leaving extensive caves sixty or seventy feet under ground, and extending great distances, in some instances fairly under the city itself. In these caves the temperature is very equal, and the atmosphere moist; and here mushroom-growing has been brought to its fullest development. The floor of the cave is carefully swept, and the beds are then made of the dust from the stone-cutting yards above, mixed with stable-manure. These beds are about twenty-two inches in height and the same in width, ranged in parallel rows, between which there is just room to walk. The temperature of the bed is carefully noted, during the fermentation of the manure, and the spawn of the mushroom is not sown until it is below 76 deg. Fahr.; since, if it is above this, the layers of spawn are liable to be burnt. The spawn when sown is covered with manure, which is removed as soon as vegetation begins, and is replaced by earth. The details of making the beds, watering them, picking the crop, and renewing the spawn vary in different localities, but the general system is everywhere the same. The mushroom caves at Montrouge, just outside the fortifications of Paris, on the southern side, are reached by descending well-like pits by means of a ladder, which is simply a single pole with sticks run through it to serve as steps. From the bottom of this pit little passages radiate. They are sometimes narrow and often very low, but every inch of available room is made use of, and as many beds are crowded together as possible. Everything is kept scrupulously neat, and no litter is left strewn about, as one would naturally expect. Another type of mushroom cave is to be found at Eproulon, Mery-sur-Oise, where are the quarries for the building-stone and plaster so largely used in Paris. The excavations here are not in small, narrow passages, as in those previously described, but form large, vaulted apartments. The beds are arranged in rows, in such a manner as to make the most of the space, and here, as elsewhere, the practice of planting a certain number of beds every day in the year is observed, so that the supply is unfauling. An idea of the magnitude of the mushroom business may be formed, when it is known that one proprietor has twenty-one miles of beds, another sixteen, another seven, and so on, through a long list. Among numerous localities in which the mushroom culture is carried on, besides the two mentioned, the principal are "Moulin de la Roche," Sous Bicetre, near St. Germain, and at Bagnoueville. These caves, like mines, are under government supervision, and vary in depth from twenty to one hundred and fifty or sixty feet. Coal-mines are not adapted for growing mushrooms, and the smallest particle of iron in the beds of manure is avoided by the spawn, a circle around it remains inert. It is said to be the same with coal.

their first marked success. The earliest efforts were applied to the Merrimack River. This was originally a fine salmon river, but through reckless fishing and the erection of impassable dams, was entirely depopulated, as to that species, many years ago; the final blow to the fishing being given by the dam at Lawrence. Very soon after it was built, the salmon utterly disappeared from the river. The Lawrence dam is the first obstruction that they meet in ascending the river. For many years (seventeen or more), not a salmon was seen at or near this dam. For the last seven or eight years a fish-way has been maintained, and a constant watch kept for salmon ascending it, but not one was seen until this year. On the 31st day of May last, the water of the fishway being drawn down for the purpose of examination, a large salmon was found in it. From that time through the month of June, the water in the fishway was drawn down once or twice daily, and salmon found therein every day, but two or three, and on some days as many as four salmon were found. The examination occupied about fifteen minutes each time, and during the rest of each twenty-four hours the water was running constantly, and probably salmon ascending all the time. This examination was continued until late in July, and salmon still continued to ascend. On the 4th of July four were found; on the 5th five were found at one time in the fishway and more close to the entrance of it.

Above Lawrence the salmon passed the dam at Lowell and Manchester, and were seen in large numbers at Livermore Falls, a place on the Pemigewasset, the principal tributary of the Merrimack, where it was a common occurrence for them to be seen ascending the falls. At Manchester, also, a great many of them were seen. There seems to be ground for estimating the number of salmon in the river at thousands; and before winter sets in they will have laid millions of eggs in the upper waters.

There has been a good deal of skepticism as to the possibility of restoring salmon to rivers from which they have been exterminated. But the evidence afforded by the Merrimack River is ample to remove all reasonable doubts. The measure of success is very gratifying, and is altogether above what those conducting the experiment had expected, and has renewed the interest taken in the subject by the people of New Hampshire and Massachusetts.

These salmon came from eggs that were taken at Bucksport, hatched in Massachusetts or New Hampshire, and set free in the upper waters of the Merrimack. Their return to the Merrimack is strong evidence in favor of the accepted theory—that salmon when full-grown will return from the sea to rivers in which they passed their infancy.

Another question answered satisfactorily is that of the practical working of the fishway of the Merrimack River, especially that at Lawrence, which appears to have answered its purpose admirably. In connection with this matter it may be remarked that the great fishway at Bangor, built last winter, has also proved entirely successful. There is also now no doubt of the success of the attempt to introduce shad into the Mississippi River and its tributaries. Several years ago young shad were placed in the tributaries of the Ohio by the United States Commissioner of Fish and Fisheries. These had to descend the river nearly two thousand miles, to the Gulf of Mexico, and, having attained full size, returned to the river. They actually did this, and not less than 400 grown shad, in fine condition, were caught last summer in the Ohio River near Louisville.

Altogether, the prospect of the complete success of fish culture in this country was never more promising.

GROWTH OF TROUT—*Editor Forest and Stream*.—I notice in your last issue a communication with regard to the growth of trout in their first year. My experience teaches me that trout can be grown to seven or eight inches the first year. In my Ludore hatching house I have trout hatched last January and February that will measure five inches to-day, and the past season has not been favorable for growing trout. I have not yet been able to make my land-locked salmon keep up with the trout fry in growth. The largest of these will measure about four inches now. In drawing off my fry pond in the spring, I seldom fail to find yearlings from seven to eight inches long.

Very sincerely yours,  
Torrington Hill, Conn., Oct. 31.

LEVI HODGES.

LARGE TROUT—*Editor Forest and Stream*.—In your last, Dr. Garlick criticises Mr. Hasbrouck's statement about the growth of trout. Now I don't know how either of these gentlemen measure the length of a fish. My understanding is that the proper measure is from the tip of the nose to the end of the tail, or caudal fin. If so, Mr. H. does not tell a very big fish story. For twelve years I have kept my fry separate from older trout, and at the age of nine months, which must have been about the age of those spoken of by Mr. Hasbrouck, have often had them from four to six inches long. I have also sold and put these fish into brooks and ponds where there never was a trout before, and their growth has been nearly equal to those spoken of by Mr. H.

From reading Dr. Garlick's article I judge that he kept his trout in small ponds near the spring. If so, they would not grow as fast as trout in warmer water or larger ponds. My practice is to sell my trout off for eating when two years old—the time the doctor says they begin to grow—and they average about half a pound. There is a greater contrast in the growth of fish than any other creatures, and trout that have been for many years confined in small shallow streams will get dwarfed. I think likely these are the kind that the doctor bred from. A portion of my trout come from eggs sent me by Seth Green in 1865 from the Caledonia ponds (now N. Y. State ponds) and I presume that Mr. H. obtained his stock from same ponds. A. PALMER.

Hosebel, Wis., Oct. 30, 1877.

RICE FOR ONEIDA LAKE.—The enterprising Central City Sportsman's Club, of Syracuse, have procured from Princeton, Minn., a barrel of wild rice which has been sown along the shores of Oneida Lake.

SPLIT BAMBOO RODS.

To our customers and the public:—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

J. D., St. Louis.—Your ferns are, as far as we can make out: No. 2, *Cyrtomium anomophyllum*; No. 3, *Asplenium lucidum*; No. 4, *Cyrtomium carotoides*; No. 5, *Polypodium fraxinifolium*; No. 6, *Polypodium aureum*; No. 7, *Polypodium affusum*; No. 8, *Crtomium falcatum*; No. 10, *Polypodium tetragonum*; No. 11, *Adiantum hispidulum*; No. 12, *Poly-stichum (Aspidium) proliferum*; No. 16, *Pteris geraniifolia*. The other numbers we are not positive about from the specimens sent. Send better specimens next time.

H. J. C., Milton, Pa.—The Life Plant (*Bryophyllum calycinum*) can be had of almost any florist for twenty-five cents. It is grown only for its being curious, and may not be found in every collection.

## The Kennel.

To CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

### THE FOX TERRIER.

For Forest and Stream and Rod and Gun.

I AM very glad to see that the sporting journals are at last beginning to take an interest in other dogs besides the pointer and setter. There are many gentlemen dog-fanciers who never shoot, but still have a kindly regard for the dog, and it is to these and the members of the Queens Co. Hunt Club, and other fox-hunting associations, I would address.

The pointer and setter, especially the latter, have been so thoroughly discussed in the papers that it would be well to



RATTLER.

have some other variety of dog brought on the tapis, and, if possible, gain as enviable a notoriety as the noted shooting dogs. I do not propose to enter into the direct origin of the fox terrier, simply because I firmly believe he has none; he is what is termed a made dog—that is, a mixture of different breeds and, in this instance, of terriers and beagles. The working fox terrier, or field dog, is used for bolting foxes on a fox hunt—that is, a fox runs into a hole or drain to escape the hounds and it is impossible to dislodge him, so a brace of fox terriers are generally carried along, either by a man walking or riding. Some of these dogs run behind the pack, but this exertion makes them too tired and exhausted for their peculiar work. The dog or dogs are then put on the track of the fox where he entered the hole, the fox terrier scrambles in, and ought to commence baying, barking and turning out the fox, not fighting, as the object is to bolt the fox, not to injure him so that the hounds may continue the run, giving Reynard a little license, or time, to get away. The fox terrier, therefore, should not be large, about 16 to 18 pounds, but must, of necessity, have plenty of pluck, game, endurance and strength—if he is bitten by the fox, of course he is bound to return it. It is almost impossible to train a dog of such thoroughly game qualities not to bite, unless he is carefully entered, that is, educated the pup at first when quite young to show every disposition to murder—without actually committing the deed; for where a fox terrier is a blood biting dog, then his usefulness in the field ceases; for if he does not destroy the fox, he will maim him, most probably, so that he is unable to run, and consequently the hunt must come to an end.

The first fox terrier that I became acquainted with was Tartar, then owned by Mr. Herbert. He was a noted and famous dog in his day, and had a number of owners; a good worker, and a grand sire, as many winners of the bench show to-day claim him as their progenitor. There are a few specimens here, but of a very different character to the above-named dog. "Fitch," a dog owned by Mr. Hume, of Richmond, was the model of a dwarf fox hound in build, and a very likely looking fox terrier. His color was very good, but he lacked the long, powerful jaw, and, as I thought, a little too small; but he was very young when I saw him last at the Baltimore show, and bid fair to make a nice and servicable dog. "Tricksy" is only a fair bitch, much too short in the

nose, from the stop to the tip, and the jaw lacked muscular development. However, I should much like to see her bred to a first-class sire. Mr. Darling and Mr. Griswold own some pups, the latter's, I believe, are in training, but I am informed that the cream of the fox terriers was shown at the London, Ontario, show.



JOCK.

This letter is simply an attempt to interest the public in the fox terrier, so it would be out of my province to enter more fully into the points and other special qualifications of this wonderfully game and intelligent dog. Stouchege, in his coming work on the "Dogs of the British Isles of To-day," will give all the points requisite. However, as it is well to have as many opinions as possible on this subject, I now place before your readers a letter from W. Cropper Cope, who is one of the oldest breeders, judges and the greatest authority on fox terriers in England. He says:

There is such a diversity of opinion respecting this breed of dog, particularly in the present day, that it is a somewhat difficult subject to enter upon. Few varieties of dogs show greater intelligence than the fox terrier. Capt. Williams, Mr. Merry and Jack Morgan were among the breeders of the earliest and best, and few, if any, have come up to the standard of "Old Jock," bred by Capt. Williams. He was as near perfection as possible, and it is a great question if ever his like, taking him altogether, is seen again. "Venture," "Trimmer," "Old Trap," "Fox," "Chance," and several others, were very good specimens, though not equal to him. "Venture," however, was a grand dog, and after winning a great number of prizes, I sold him to Mr. H. Gibson for a long figure, in whose possession he soon died. "Old Jock" had several masters; he was in my possession longer than in that of any other person, and, after winning an immense number of prizes, he was only defeated on two occasions by a dog called "Tartar" which was anything but a fox terrier, showing a good deal of the bull terrier type. I have owned the very best dogs that have yet been produced, such as "Old Jock," "Venture," "Trimmer," "Fox," "Old Trap," "Ruby," "Grove," "Nettle," "Nectar," and many others. All these have been very successful, and large prize winners, and sorry am I to say that, as far as my judgment is concerned, none like them grace the various benches at our shows. I can only find now a very few approaching them. These are Fletcher's "Rattler," "Little Jim," "Frisky," and Burbridge's "Nettle." Fox terriers like the above-named are very difficult to breed, and it is only now and then that one approaching to perfection is found, and in such cases, commands a very high price. Large numbers are exhibited at various shows, where they are most attractive, and are generally a puzzle to the judges who have to decide on their merits and demerits. The fox terrier dog should not exceed 15 lbs.; a bitch, 16 lbs.; his principal requirement being to enter any earth or drain to bolt a fox. It is of consequence that he should be of good constitution, being continually exposed to wet and cold. Courage and determination are essentially requisite, enabling him to endure punishment. He is not wanted, however, to draw the badger, but to go to ground and bay at, not destroy, a fox in his earth; and ought to must not be too sharp. He is a distinct family, and ought to be lower than that of the pointer; the forehead should be lower than that of the pointer; the head lengthy; nose, pointed, long, and tipped with black; ears, short and thin, dropping close to the cheek; well-formed jaws; strong teeth, level neck, rather light back, lengthy, strong loins, showing ribs, round back, ribs deep, legs straight, cat-like feet, stern fine, and must not curl, coat smooth, thick set, not wiry; as to color, there is a wide difference of opinion; that most preferred is white, with markings of black and tan or black—brindled is certainly objectionable. Points.—Head and ears 10; nose, 10; jaw, 5; eye, 5; chest and back, 10; shoulders and neck, 15; hind quarters, 10; legs and feet, 20; symmetry and color, 15.

Stonehege's points are similar to these, and do not differ materially. The fox terrier most talked about at the present time is the extraordinary bench show winner, "Rattler," a champion of champions, whose portrait appears above. He is owned by Mr. Fletcher, of Manchester, England, to whom I am indebted for the photograph, and other interesting matter as follows:

Anything like a good fox terrier dog fetches now from £50 to £100. I have refused £180 for "Rattler," and my best bitch was claimed at the last Birmingham show for £100. You will not be able to obtain a medium, either a dog or a bitch, for much less than £25 or £30. "Rattler" was pointed to a scale of measurement, and was bred by Mr. Luke Turner, of Nottingham, England, and has won 140 first prizes since he became my property. Every time there has been a prize offered for the best dog in the show, I have always won with "Rattler," beating every other breed of dog, a feat never before accomplished by a fox terrier. Fox terriers are now the leading and most fashionable classes in England, but there are very few that can be called first-class, and £100 is only an ordinary figure for what is termed a champion dog or bitch.

Gentlemen dog-fanciers must not be alarmed at these prices, as we cannot, all of us, own "Goldsmith Maids" or "Ten Broecks," yet there is a possibility, and probability, that we

can breed as good dogs as "Rattler" and "Jock." These grand sires and grand dams never cost more than £10, or \$50 each, so that the raging fashion for fox terriers in England is similar to the pure black fox pelt, which is worth, anywhere, from \$100 to \$350, according to its size, color and length of hair.

The fox terrier is gradually coming into fashion in this country, but it will be some time before he gains the notoriety that he has done in the Old World; and I can assure those who fancy this breed of dog, that good specimens can be purchased of reliable gentlemen in England, at from £15 to £25, or even a trifle less.

JOHN M. TAYLOR.  
The "Retreat," Bellefonte, Pa.

### CANINE THERAPEUTICS.

TONICS.

THE word tonic is derived from a Greek word signifying Is stretch, and by a figurative allusion to a stringed musical instrument, the cords of which do not give out their proper sound unless made fully taut, tonic remedies may be described as those which gradually produce the requisite degree of tension of the nervous system, or generally of the muscular fibre, and which enables it fitly to respond to all of its natural and appropriate stimuli. The idea of tension is inseparably associated with all our notions of vital force, because the most common, if not the only, conception we possess of organic power is derived from our experience of the phenomenon of muscular force, which is always displayed in connection with the tension of muscular fibre.

All exhibitions of force in the animal economy involve two elements, a vital and an organic element; the former of which represents the power, the latter the mechanism by which the power operates. The organ may be fully developed and sound, but the power to move it may be defective; or, on the other hand, the vital activity may be unimpaired or even exaggerated, but, from defective nutrition, the organ may be unable to manifest the power which is expended in it. Finally, neither of these elements may possess the requisite degree of development; the organ may be imperfectly nourished, and, at the same time, the vital force may be wanting, and is required for the performance of its functions.

For these morbid conditions nature has bountifully provided remedies: stimulants to excite and tonics to strengthen, and, as if with an intelligent anticipation of the needs of the system, a third class of medicines, which combine the virtues of the other two. Not altogether different in their essential nature, tonics and stimulants do not exclude, but are complementary to one another—the former developing the organic nutritive element, the latter the dynamic, nervous, vital power. According to the necessities of each case, in this case, we may employ an exclusively tonic or an exclusively stimulant method of treatment, or combine the two, associating representatives of each class, or prescribing those in which tonic and stimulant virtues are united in different proportions, and which may be called tonic stimulants, or stimulant tonics, according to the quality which predominates in each.

Comparing pure tonics and pure stimulants with one another, we are struck with the remarkable difference between them, that while the influence of the latter is transient, that of the former is comparatively permanent. Stimulants, acting upon the nervous system, rob it of power by their very stimulation, and, unless the loss were made up by external aid, would soon exhaust it completely; but every tonic operates under due conditions as regards nutrition, adds to the strength of the system in a slow and gradual, but permanent manner. Nevertheless, tonics are stimulants of the organ, force, and, as we shall see, produce some of the worst effects of stimulants when employed too lavishly, and not in proportion to the susceptibility of the stomach and of the nervous system. Stimulants are also virtually tonics, inasmuch as their power over the intensity of organic operations enable the stomach to digest food which, without their aid, would be only burdensome and irritating.

Besides the groups of tonic remedies just mentioned, there is another, which may with propriety be called specific, because each member of it presents peculiarities depending upon its essential nature, or upon its association with other elements possessed of specific powers. The most important of these is iron. Its operation upon the stomach, and through its direct influence upon the function of digestion, is most inappreciable; and those of its preparations which are administered with a view to this effect owe whatever efficacy they may have in promoting it to the acids with which they are combined. A more correct denomination for iron, therefore, is that of a nutrient medicine, for its presence in the blood and in the solids, also, it is quite as essential as that of elements of ordinary food to the performance of their functions. Cinchona possesses the virtues of a tonic, and that in a high degree, but its most eminent quality depends upon quinia and the other alkaloids which it contains, and which impart to it anti-periodic virtues. The marked action of quinia upon the canine economy, however, is that it has a direct sedative influence upon the motor power of the heart. With dogs it is less valuable as a tonic than carbazote of ammonia, and other alkaloids of cinchona bark and dogwood as of cinchona, although the specific properties in them are quite feeble, so much so as to lead some to declare that they do not exist at all. Finally, while cinchona bark contains a bitter and tonic principle combined with a direct sedative, hydrocyanic acid, and affords, it is a tonic, the only example of this association (except quinia), is a parently antagonistic virtues in the same substance.

Bitter tonics, as those vegetable productions which owe to their tonic properties to their bitterness, if used in short time before meals, excite the appetite and temporarily debilitated stomach capable of digesting a greater quantity of food than it could otherwise dispose of. Consequently, their influence, and provided that secondary assistance is not impaired, the muscular strength becomes increased, and all the operations of the economy are more vigorously performed.

The nature of the action excited by vegetable bitters upon the stomach is not well understood; but a consideration of their effects under different circumstances renders it probable that they act as irritants. For if they are used in

does they excite gastric uneasiness, pain, and even vomiting, the latter the more readily if they are administered in warm infusion. Under such circumstances, if not rejected by the mouth, they may occasion colic and diarrhoea. It is also well-known that if their dose is not proportioned to the susceptibility of the digestive organs, they may not only cease to produce a tonic effect, but absolutely to destroy the appetite and give rise either to diarrhoea or constipation. It is, moreover, a familiar fact that a febrile state of the system altogether contra-indicates their use, because they then immediately derange the stomach and augment the vascular excitement. This is at least true as regards acute febrile diseases. It is even more important in its relation to the present question to bear in mind that when these medicines are administered to animals in full health, they are very far from augmenting the vigor of the system generally or of the organs of digestion. They impair the appetite, derange the functions of the stomach and bowels, coat the tongue, and in fact engender the very condition which under different circumstances they are adapted to cure.

It is to be observed that medicines of various kinds impart activity to the digestive functions. Now there is no evidence at all to show that bitter tonics exert any part of their influence, after absorption; everything on the contrary tends to prove that their action is limited to the mucous membrane of the stomach and bowels. If such be the case we must look for an explanation of their differences from irritants and from alcohol, which as is well known are often used by man as condiments, and to increase the appetite and promote digestion, respectively—chiefly in the peculiarity of the mode and degree of their stimulation. They are evidently gentler than the one, and both gentler and more permanent than either, and hence would seem to be better fitted than either to restore that natural tone to the digestive organs which they have lost through the protracted operation of debilitating causes.

If we now endeavor to learn the cause of this peculiarity in the present class of medicines, and turn as we naturally must to their physical qualities for a solution of the question, we are immediately struck by the quality of bitterness which they possess in common, and are disposed to conclude that in it reside their tonic virtues. Although this conclusion is true, it does not embrace the whole truth. Among purely vegetable tonics the most powerful is quassa, in which the quality of bitterness resides in a most intense degree, yet it is surpassed in this respect by sulphate of quinia, which, however, is inferior to it in purely tonic qualities. A similar remark may be applied to nuxvomica and its alkaloid strychnia, which exceeds all other substances in bitterness, but whose tonic virtues, properly so-called, have not appeared to entitle those medicines to a place in the present class. Aloes and colocynth are also extremely bitter, but are scarcely to be regarded as tonics. These facts, although few in number, are sufficient to prove that the cause of bitterness is not identical with the tonic quality, although generally associated with it. We must not quit this brief notice of an interesting question without referring to an analogy which probably is not without its significance. The bile has a bitter taste, and the importance to digestion of this secretion is very great. It is true that its influence is generally ascribed to its alkaline qualities, and they are doubtless essential to good digestion; but we may not overlook the fact that a bitter secretion is provided by nature to which we may without much risk of error ascribe some share in the activity of intestinal digestion, and hence reasonably infer that the analogous quality in tonic medicines must exert a similar influence upon the functions of the stomach.

In regard to the therapeutical application of tonic medicines, it may be remarked that those called specific have, as their name imports, an application to special diseases; iron to deficiency in the red globules of the blood, and Peruvian bark and its associated barks to periodical, and especially malarial paroxysmal diseases. These vegetable tonics may be more or less applied to the same cases as simple bitters and stimulant tonics.

As it has already been intimated, iron enters into the system to be assimilated and occupy its place in the blood, muscles, etc., as a constituent of the body, while bitter tonics operate primarily and perhaps exclusively upon the stomach and intestines, increasing the appetite, and promoting assimilation of the food. Hence a practical precept arises, of no small importance, when the digestion is feeble and iron is indicated, always to associate with it one of the bitter vegetable tonics. Thus it is that "bark and iron" have long been looked upon as almost inseparable coadjutors in the tonic regimen.

(To be Continued.)

THE GRAND NATIONAL PHILADELPHIA DOG SHOW.

The Philadelphia Grand National Dog Show will certainly prove a success. The exhibition is to take place on the 26th, 27th, 28th, 29th and 30th of this month. The entry books will be closed on Nov. 20, at 5 P. M. The Continental Hotel has been selected as headquarters for the exhibitors, and no doubt for some weeks to come the spacious corridors of this fine house will resound with dog-talk. We notice particularly that this dog show is under the patronage of the best gentlemen in Philadelphia, who, to high social position, have in addition sportsmanlike qualities. The prizes will consist entirely of silver ware of beautiful and appropriate design, and Messrs Bailey & Co., the leading silversmiths in Philadelphia, have certified that the purchases have been made.

To these handsome awards are to be added numerous special prizes which are coming in every day.

The Judges are, so far: For pointers and setters of all classes—William Winsor, John B. Sartori and George Emleu. For spaniels and other water dogs—Frank Furness, Dr. Wm. Lohr, U. S. N., and William Winsor. For fox hounds, fox terriers, beagles, dachshunds and greyhounds—Benjamin W. Richards, President Sportsmen's Club. For all non-sporting dogs—William Wister and James B. England.

We sincerely trust that New York gentlemen, owners of dogs, will be present with their fine stock at the Philadelphia show. From what we know personally of the class of animals owned in and around Philadelphia, we are sure that the second city in America alone could furnish superb material for a canine exhibition.

THAT GRAMMATICAL DOG.—It was quite a number of years ago. We never exhibited him at a bench show; we felt he would

not be appreciated. His name was White. He was a dropper, with a cross of yellow dog in him, and, if worth not much for birds, had, however, developed quite remarkable talents as a grammarian. You might have addressed that dog as follows: "There ain't no cold beef in that there meat safe," and that dog would not have paid the least attention to you. Evidently the double negative White could not understand. Once a lamented friend (dead now) and the principal of a public school, said to him: "This here piece of billed liver is the biggest of the two. Which one will you have?" It was painful to witness poor White's disgust. Certainly he felt quite keenly, perhaps in a personal way, that the fine distinction between the comparative and superlative had never been fully appreciated. Maybe it was the mispronunciation that hurt his feelings! Once we took the dog to an Englishman, who called him "Vite," and said "Ow har you, doggy?" That poor dog absolutely cowered. We remember quite distinctly to have read to him the concluding speeches at a dog show, and at every slip of grammar the poor animal's sufferings were harrowing to witness. It was one continuous howl. We lost poor White. It was this way. The lot contiguous to my house abounds with geese. They are of the tame variety. The dog, though grammatical, liked to chase geese. It was, we suppose, a relief to him. An old woman who was watching the flock said (unkindly, we thought), "You datted cur! can't you leave them geese alone?" Two such wretched errors in a single sentence tended, we are afraid, maddened White, who presently caught a gander and slew it. Just then the old woman's husband fired a load of buckshot into White, remarking, "You cussed hound! you ain't good for nothing but for to kill a poor man's goose—is yer? which if I had know'n his master we would have let him have this t'other barrel too." This was evidently too much for poor White. Certainly it was not the buckshot which killed him, but the inelegance of the language and the unfortunate construction of the sentence. We have never attempted to raise a grammatical dog since.

—Among the prizes to be awarded at the Paris dog show held in connection with the International Exhibition, are premiums for blind men's leading dogs, for sleigh dogs from Lapland and Greenland, for edible dogs from China and Polynesia, and for several varieties of wild dogs.

—Mr. M. C. Fisher, of Robert's Island, near Stockton, Cal., has imported from England some thirty dogs, comprising black retrievers, collies, stag-hounds, hull terriers, Scotch terriers and Dandie Dinmonts. The dogs are all of good blood and are a valuable addition to the kennels of the Pacific Slope.

—Mr. M. Von Culpe, of Delaware City, Del., will exhibit at the Philadelphia dog show his Laverack stud dog Carlowitz, the field trial setter bitches True and Queen Bess, the red Irish setter Jacques, and the red Irish setter bitches Colleen, Jane, Clytie and Moll III.

FINE SCOTCH DEERHOUND.—We have had a visit from a superb Scotch deerhound, Lulu by name, the property of T. W. Breakbane, Esq., of Chelsea, England. The dog had all the fine points of his race, and we were told could trace his pedigree back through some six generations. The animal was perfectly broken, and was as fine a specimen of this rare dog as we have ever seen.

NASHVILLE FIELD TRIALS.—Our readers will bear in mind the annual field trials to be held under the auspices of the Tennessee State Sportsmen's Association, on the 12th inst., at Nashville. The Puppy Stakes will lead the program; and the Champion Stakes will be run on the second day, and on the third the Brace Stakes and the St. Louis Kennel Club Stakes for puppies under twelve months. The entries closed on the 1st inst. The judges are Messrs. D. C. Burgundthal of Indianapolis, C. Jeff Clark of St. Louis, and Dr. Rawlings Young of Corinth, Miss. We have made these announcements already in our columns, but are anxious that these field trials should be a success. Col. F. G. Skinner will represent the FOREST AND STREAM as its regular Southern correspondent.

Sea and River Fishing.

FISH IN SEASON IN NOVEMBER.

- Black Bass, *Micropterus salmoides*;
- Weakfish, *Cynoscion regalis*;
- M. nigricans*;
- Bluefish, *Pomatomus saltatrix*;
- Mascelonge, *Boop nobilior*;
- Spanish Mackerel, *Cybinum maculatum*;
- Fike or Pickrel, *Boop lucius*;
- Striped Bass, *Morone americana*;
- Yellow Perch, *Perca flavescens*;
- Sea Bass, *Sciaenops ocellatus*;
- Striped Bass, *Roccus tinneatus*;
- White Perch, *Morone americana*;
- Weakfish, *Cynoscion regalis*;
- Bluefish, *Pomatomus saltatrix*;
- Spanish Mackerel, *Cybinum maculatum*;
- Cero, *Cybinum regale*;
- Bonito, *Sarda pilumnus*;
- Kingfish, *Menticirrhus nebulosus*;

FISH IN MARKET.—With the exception of striped bass all kinds of fish are scarce. Bluefish have entirely left the proximity of New York. The fleet have returned and are now fitting up to follow the fish to North Carolina. Bass, according to size, 15 to 18 cents a pound; smelts, 25 cents; bluefish, 15 cents; salmon, frozen, 30 cents; mackerel, 15 to 20 cents; green turtle, 15 cents; terrapin, \$15 a dozen; halibut, 18 cents; haddock, 7 cents; kingfish, 30 cents; codfish, 8 to 10 cents; blackfish, 15 cents; flounders, 6 to 12 cents; lobsters, 10 cents; sheephead, 25 cents; scallops, per gallon, \$1.25; soft clams, 30 cents per hundred; whitefish, wonderfully large and fine, 18 cents; salmon trout, 15 cents; hard crabs, \$3 per 100; blue-back Ranglely trout, 75 cents per pound.

MOVEMENTS OF THE FISHING FLEET.—The mackerel season is fast drawing to a close. The arrivals from the Bay the past week have been numerous, and the balance of the fleet will soon be along. The fleet report very rough weather for the past eight weeks, and were unable to fish the greater part of the time. The vessels have met with poor success, and the business will prove a losing one to owners and fitters of vessels, and bring inadequate returns for their labor to the fishermen. Comparatively few of the vessels have secured over 200 blbs. each, and one vessel reports a catch of only 70 blbs., while the average will not probably exceed 180 blbs. The number of arrivals reported the past week has been 28 and the receipts 5,130 blbs. The shore mackerel fleet are gradually retiring from the business and hauling up or changing their field of operations. The number of arrivals since our last issue has been 33, and the receipts 2,400 blbs. The Bank and Georges fleets continue to meet with indifferent success, and with a light stock on hand the market remains firm. The number of arrivals the past week has been 11 from the Banks and 21 from Georges, and the receipts 175,000 lbs. Bank codfish, 250,000 lbs. Georges codfish, and 100,000 lbs. halibut. Total number of fishing arrivals for the week, 93.—*Cape Ann Advertiser*, Nov. 2.

FLORIDA—Crystal River.—Crystal River is about eight miles north of Homosassa. Deer and turkeys are quite plentiful, and very fine fishing in the river. The village has made arrangements for the accommodation of strangers this winter. This is a fine game country, and there is good fishing for black bass, sheephead, channel bass, cavalli, sea trout, tarpon, sharks, etc. A. B. D.

St. Augustine, Nov. 1.—Fishing is excellent. Capt. Pratt and Drs. Anderson and Janeway caught thirty-nine surf bass at Matanzas one day last week.

THE NEWFOUNDLAND FISHERIES A FAILURE.—Advices from Newfoundland state that the fisheries are a failure, and that the prospects have not been so bad for years. On the western coast there is great destitution, and fears are entertained of much suffering during the coming winter.

THE MAGDALEN ISLAND FISHERIES.—All the vessels have left for the mainland with the products of the season's fishery, which is below the average. Stormy weather caused the failure of the cod fishery. It was impossible to go out on the fishing grounds with success for the past two months.

HEXAGONAL BAMBOO RODS.—A correspondent in Leesburg, Va., asks us: "Which is the better of two six-split bamboo rods, the round or the hexagonal?" He is inclined to prefer the hexagonal, as he thinks it preserves the enamel entire. Now, the value of a rod depends upon its mechanical construction, the quality of material and its working power. The hexagonal rod is the easier made, and therefore about 40 per cent. cheaper. A poor workman cannot make the perfectly round joints, and must therefore make them hexagonal. The most experienced workman can make the round joint entirely of enamel, but it is a long and expensive job. As to quality, it is claimed by those who like hexagonal rods, that there is more enamel preserved; but this is only the case when the round joint is improperly made. The claim of extra strength can hold good only as respects the six points or angles. As a rod always breaks at the weak part, it is evident that it is useless to strengthen one point above another in the same circumference. It is this disproportion of strength throughout that renders the hexagonal rod more liable to break than the round. As to the working of the two rods, the hexagonal, owing to the angles being stronger and stiffer than the flat sides between them, cannot be made to swing as evenly or to retain its straightness. It does not handle as well as the other, and consequently will not deliver a line in as satisfactory a manner.

ON A STEAM FISHING SMACK OFF NEWPORT, R. I.—*Mr. Editor*:—There is not a *scrap* of romance in this story. The whole thing is sealy, but true. On the day of last May, I had an invitation for next morning at 4 o'clock to go a-fishing on the crack little craft, the Gipsy Girl. We were on board at the time fixed, and in a few minutes steamed out of the beautiful harbor. We witnessed the waning moon's descent, as the luminous orb of morn ascended. The weather was as Providence makes it only for favored Newport. Breakfast was announced about five, so as to have all in readiness when fish would be sighted. The cook was a genuine downeaster, and I believe he "knew how to keep a hotel," for the repast was excellent, and all hands promptly did their duty.

Breakfast was hardly finished, when the signal was given, "Fish ahead, to the larboard!" Then the men went to their stations (no guns). Two large whale boats with their crews and purse nets went for the fish—menhaden. The boats approaching the school, separate, let out their nets around, and then come together again, thus catching in the panache of the seine about 64 barrels in three hauls. But Capt. Wilcox called it poor luck. To me, a landsman, it seemed miraculous. But what I am now about to relate has to do with a better fish than menhaden.

Presently, the look-out man espied mackerel right ahead. Faces flushed and eyes sparkled. "Now for 'em, boys," said the Captain. Away went the two boats as before, performing the same tactics. A splendid haul this time of about 1,500 shining bright mackerel were landed on the deck by means of a steam monkey engine, scooping them out of the purse. I never had seen such a sight! I don't think the fish were more surprised than I was. Such flapping and jumping I never beheld; the fish were very fine. As I happened to express my admiration of them, speaking to the engineer—an intelligent young fellow—I remarked they were the freshest mackerel I had ever met with, and added, "The fresher a mackerel is, the better for cooking." "How should they be cooked?" asked the engineer. "Oh," I replied, "first kill 'em, cleanse, and broil 'em on a hot fire." I noticed the twinkling in his eye. Five minutes from that time, the engineer called me into the engine-room, where, on a dish, was one of



GALLARD SPORTING CLUB—Editor Forest and Stream—It is a custom with us to require each active member of our club to keep a record of game killed during the year...

We have seen various tables of this character, but think the Gaillard Club have the points quite right. However, we shall be pleased to hear from other quarters on this subject.

A LARGE BUCK.

HELENA, Montana, Oct., 1877.

EDITOR FOREST AND STREAM: As "Sycamore" and "Antler" have regaled your many readers with what they know about deer, their habits, etc., I thought an item from this region concerning them might not be uninteresting...

It was a large buck of the mule (Cervus macrotis) species, and tipped the beam at two hundred and sixty-three pounds net. It was a veritable "monarch of the Glen," and fought fiercely until the death after being shot. It had a large, splendid set of horns, and its skin when dressed would have made a hunting suit for an average sized man...

A. P. PICKETT.

In Messrs. Remington's window may be seen a fine eagle, measuring five feet across the wings, shot by Judge Gildersleeve this summer in the Green Mountains of Vermont. The king of birds was laid low with a single barrel of a 10-gauge Remington, with a charge of 4 1/2 drachms powder and 1 1/2 ounces of BB.

All hunting and fishing stories sent to this office must be accompanied by the fish as a guarantee of good faith.—Shenango Valley (Pa.) Argus.

Capital idea. And send him lively proofs of your snake yards too.

Captain Bogardus paid us a visit on Monday. The Captain is preparing for his greatest effort, proposing to shoot 100,000 glass balls in 5,000 minutes, or in 8 hours and 20 minutes. That is, Captain Bogardus is to fire ten shots a minute, besides making up for the misses. One gun with two sets of barrels will be used. To accomplish this feat, fifty pounds of powder and upwards, and 500 pounds of shot will be used. One active man in loading up shells would furnish about the requisite amount in three days. We will announce later when and where this wonderful performance is to take place.

BLUE ROCKS.—Mr. Ira A. Paine has been shooting blue rocks in their native cove off the coast of Ireland. A couple of these handsome birds, in all the lustre of their rainbow tinted necks, came to our office to be forwarded to Green Smith, Esq. The blue rock is the personification of a swift flying bird.

PIGEON MATCHES.

DEXTER PARK, L. I., Nov. 5.—Grounds of the Long Island Shooting Club.—Sweepstakes pigeon shoot; 15 birds each, 25 yards rise, 80 yards boundary, 1 1/2 ounces of shot; Long Island club rules to govern:

Table with 2 columns: Name and Score. Includes names like C. Williams, Dr. Wyne, Burroughs, T. Broadway, Duxes, Gildersleeve, K. Williams, Longato, Woods, Hughes.

Same Day.—Sweepstakes; 25 yards rise, 80 yards boundary; Long Island rules to govern; five-birds each:

Table with 2 columns: Name and Score. Includes names like T. Broadway, Dr. Wyne, Gildersleeve, Miles Johnson, Duxes, Ben West.

Answers to Correspondents.

No Notice Taken of Anonymous Communications.

A number of anonymous correspondents will understand why their queries are not answered, when they read the lines at the head of this column.

M. W., Warren.—Have written to the party and await his reply. A. C. J., Black Hawk.—Is Stanley, of the N. Y. Herald, a Welshman or an American? Ans. Stanley was born near Denbigh, Wales, in 1849. O. E. S., Twin Lakes.—Where can shooting jacks be bought, and what is the price? Ans. Address White Manufacturing Company, Bridgeport, Conn. B. E. M., Attleboro.—What book shall I get in order to learn how to handle a gun and to load cartridges? Ans. "The Sportsman's Gazetteer," or "The Breech-loader" by Glean.

S. C., Alpena.—All the names you give are those of first-class makers. It becomes a choice simply of action. Good length of barrel is thirty inches. We wrote you about the blading.

C. W., Boston.—Inform a subscriber where he can purchase the juniper tar soap spoken of in the paper, and the price per dozen or pound? Ans. \$2.25 a dozen; any wholesale druggist in this city sell it.

R. R., Syracuse.—Having read "Hallock's Camp Life in Florida" do the laws there require on steamers an engineer, fireman and pilot? Ans. The law is unchanged. You must have engineer, fireman and pilot.

C. S. P., Lexington, Ky.—Would you recommend the Orvis rods? Can I receive one by mail? Ans. Yes, they are good rods. Rods in wood cases are sent by mail to any part of the country; the postage is from thirty-five to fifty-five cents.

J. E. Le C., Philadelphia.—Please give good place for quail within twenty miles of Philadelphia; also the best point for duck-shooting on the Delaware within the same distance. Ans. Go to Quakertown, or Sellersville. You will find good duck-shooting at Lewes, Del.

F. W. C., Boston.—We are informed by Fish Commissioner Stillwell, of Maine, that the fish taken from the outlet of Ship Pond at Ellitsville Me. was not the young of the true salmon, as we surmised in our answer of October 15, but of the land-locked salmon, Salmo gloveri.

R. F. C., East Saginaw.—Do you know of any books which give instruction for building a small sailing yacht? Ans. We do not. We are now publishing a series of articles on this topic. Vanderdecken's Yacht Manual instructs in marine architecture, but English modes and size differ from ours.

CRESCENT, New Orleans.—Pawnbrokers' goods are exceedingly hard to judge. Have seen excellent guns picked up at times in such places. Pin-fire guns are out of date and are not as good as centre fires. Would not advise your purchasing one. If not so at present, in time pin-fire cartridges will be hard to procure.

C. H. L., Spring Lake, Ill.—What parts of Washington Territory afford the best shooting? What kind of game would I find there? Ans. You will find deer about Vancouver and Port Townsend; deer and wild fowl about Colville; great numbers of water fowl at Shoalwater Bay. Game is abundant throughout the territory.

CLIFTON SPRINGS.—Please decide the following point as soon as possible: A is at the score, has misfire, is challenged, and on examination of shell (metal) no priming powder is found in cap, which is a Berdan primer. Referee decides lost bird. Was decision correct? Ans. The decision was not correct. A can call for a new bird.

C. H. W., Croton Landing, N. Y.—In Albatross Sound is December a good time to go? 2. What kind of ducks will I find there? 3. If I go in a schooner could I get good shooting? Ans. 1. Yes, 2. Canvas-backs, black duck, widgeon, teal, red head, broad bill, with geese and swans. 3. Yes, plenty of good places where clouds do not interfere.

E. F. H., Allentown.—1. Do you know a remedy for weak eyes? 2. Who manufactures the Whitney breech-loading shot-gun? 3. Where are T. Rodgers's & Son's knives made? Ans. Bathe them in cold water. Do not expose your eyes to glare. Try glasses; but better consult doctor. 2. The Whitney Arms Co., New Haven. See advertisement. 3. Sheffield, England.

LIEUTENANT, Baton Rouge, La.—1. When does my subscription run out? 2. In an average breech-loading shot-gun what proportion of the cost of the whole gun is represented by the cost of the barrels? 3. In a pin-fire, positive action, breech-loader, if the barrels (laminated) cost fifty dollars alone about what is the value of the gun? Ans. 1. Nov. 24. 2. About one half. 3. \$100.

B., Brooklyn.—1. Is Wisconsin a good place for wild pigeons? 2. How are net traps worked? 3. Could a young man make a living by hunting and trapping there? Ans. 1. Yes, among the best. 2. The net traps are worked with a cord which is pulled by the snarer; or are set like the figure four trap. 3. Yes, a living by general hunting and trapping, but not more than that.

J. W., Quincy.—I have a 10 gauge gun that shoots paper shells; 10 A brass will not go in, will the 10 B or will I have to have the chamber bored out? Ans. 10 A brass shells ought to go into a gun chambered for 10 gauge paper shells. 10 B would probably be too small. You might have your chamber enlarged, providing you are sure that your gun will use 10 gauge paper shells now.

FOREST AND STREAM SPORTSMEN'S CLUB OF SCRANTON, PA.—It is by no means an uncommon occurrence for a young bitch to make bag after her first heat, no matter how privately she may be kept during the three weeks. In Mr. Shepard's case we would advise that the bitch be served at the next period. It is not a common freak of nature, but there are many such cases on record.

K. K., Haw Branch, N. C.—1. For hunter's tool-chest, address H. K. Sanderson, care Springfield Union, Springfield, Mass. 2. Whitehead's "Camp Fires of the Everglades" gives much useful information about the country of which it treats. 3. The Scientific American is the best publication of its kind. 4. For information about farms near Wilmington, write to the editor of the Wilmington Star. There is plenty of sport in the neighborhood.

WALTER, Newark.—By taking a letter of introduction to lower Delaware, Maryland you will find good quail and woodcock shooting in their season. The country is nearly all posted. Take T. A. M. train from Wilmington, Delaware, to Dover, Smyrna, Harrington, Salisbury, Berlin and other places. Board at hotels \$1 to \$2 per day. Capt. Ayers at Ocean City, six miles below Berlin, has a nice house, and so has Capt. Coffin on Sinapuxent Bay, near Newark, Md.

E. T. B., Richmond.—1. Do you consider the "Allen" rifle, chambered for the long 38 centre-fire cartridge, a reliable target rifle up to 300 yards? 2. Do you know anything about the firm of Turner & Ross, Boston, who advertise a \$5.00 rifle in your columns? Are they responsible? Ans. 1. It is a good rifle and reliable at the distance you inquire about with the cartridge mentioned. 2. The firm you ask about is perfectly reliable, and for a cheap arm their rifle is quite good.

A. P. P.—1. What is the use of the sub-orbital openings? Does the elk use them when he bugles? 2. Why does the Winchester rifle, model of '76, no longer use the slide? Ans. 1. The sub-orbital openings are issues from the lacrymal ducts, and have possibly no other function than to drain off excess of moisture, or the fluids which lubricate the eyes. No sound could possibly issue from them. 2. This question is answered in the last issue and in the present number.

W. D. K., New York.—A setter dog seven years old is troubled with a severe cough, and while coughing tries to vomit, but can very seldom do it. Is a yellowish slime or froth which he vomits. He is a little short winded, also, which I think is the cause of it; he has been troubled with it for about three years. He eats well, and is always willing when I take the gun. Ans. Your dog evidently has some trouble with his lungs, and as it is of three years duration it must be chronic. From what you say about his short breath and spits, we should think it might be chronic bronchitis, but it might be Phthisis Pulmonaceo or consumption. If you value your dog very much, have his lungs carefully examined by a regular physician, and then give him tonics, etc., according to his malady.

W. W.—1. Can you tell me of any place within ten miles of New York where there is shooting of any kind? Ans. Snipe and beach birds at Cauarsie and Rockaway. 2. In loading a gun, what effect does it have on the charge if you put two wads over the powder instead of one? Ans. Shoots closer. 3. Is there any place in the city where I could hire a hunting dog for the day or week? If so, where, and at about what expense? Ans. Go to Walter Humphrey, 21 Fulton st.

J. S. B., Macon, Ga.—How can chalk spots on the cloth of a billiard table be removed without injury to the texture or color? Can you give me an authority on making the surgical operation of caponing? Ans. 1. Mr. Phean informs us that the only way is to use a brush, but that the fine particles of chalk which get ground into the body of the cloth never can be entirely removed. 2. The Poultry World, Hartford, would be a leading authority. They have published the best process we know of.

S. C. S., Warren Co.—When does my subscription expire? Is the first week in January a good time to visit Currituck Sound? What is the cost per week there? What markings are the handsomest in a lemon and white setter? Ans. 1. We can't find your name on our books; will you please write us again? 2. Yes, a good time. 3. About \$3 to \$4 a day, all included, if you know how to manage. 4. A subject of great difference of opinion. Not too much color on the head, we like; or, if colored, the patches equally distributed. A white and lemon is always as easy dog to see in dim lights. We can not honestly give an ex cathedra reply.

C. L., Phila.—My two Newfoundland pups have been feeding on milk, bread soaked with suet, and occasionally a little meat well cooked. They cared little for the milk or bread, but ate ravenously of the meat, gnawed over bones, and after getting a little meat could not be induced to eat anything else. A few days since I noticed the male very much distended about the abdomen. Shortly after he vomited considerably, and to-day he vomited two worms. Since then he has refused food altogether, moans considerably, is restive, can't find an easy place or position, cries nearly all the time. Ans. Try formula No. 7, of the "Sportsman's Gazetteer," if it does not succeed go to a good apothecary and have him pulverise and sift very carefully some common glass, give a tea-spoonful, and in a few hours follow with some laxative.

A. B. C., Boston.—1. Does a thoroughbred spaniel have as fine a nose as a pointer or setter? 2. Can spaniels be taught to stand on game generally, or only in exceptional and individual cases? 3. If they cannot be taught to stand, can they be trained so as to be controlled from flushing the bird—say woodcock or snipe—when their motions show that they are near a bird? 4. Is not the scent of the English snipe weaker than that of most so-called game birds? 5. Is the spaniel apt to give tongue when striking scent, and if so, can he be broken of it? Ans. 1. They have. 2. Any dog may be taught, though in the case of the spaniel, it is contrary to their instincts. 3. A well bred spaniel can be controlled. Break him, so that he comes in to call. Of course they will not stand. 4. The question of scent is purely speculative, and impossible to determine. This question has often been fought over in this paper. 5. He does give tongue, but may be broken, or trained to still hunt.

PAPER SHELLS.

Manufactured by the Union Metallic Cartridge Company, are Superior to any Shells of the Same Grade in this Country or Europe.

They are SURE FIRE, will NOT BURST in the GUN, and are warranted to shoot as well with the same charge of powder as any shell in the market. A letter published in the Chicago Field, Sept. 22, giving the result of a trial made with No. 12 St. Louis Shells which are claimed to save 25 per cent. of the powder, and give almost no recoil to the gun and No. 12 Bridgeport Paper Shells, says:—

"Four of each loaded with 3 3/4 and 3 1/2 drachms of Lathin & Rand's powder, and all with 1 1/2 ounces by weight, or 3/32 pellets to the charge counted, of No. 7 Chicago shot. Distance 40 yards to muzzle of gun, target a circle 30 inches in diameter, a bulls-eye center, 1 1/2 inch circle penetration pads 9 1/2 inches by 11 1/2, 30 sheets to pad, made of heavy hardware paper, 80 sheets large enough laid on each other making 24 pads. The gun was shot resting across a bag filled with straw. The following is the result:

Table with columns: Brand, Pellets in Bull's Eye, Pellets in Penetration Pad, Pellets in 30 in. circle, Sheets penetrated by 3 Pellets. Includes rows for ST. LOUIS PAPER SHEELS and BRIDGEPORT PAPER SHEELS.

Table with columns: Brand, Pellets in Bull's Eye, Pellets in Penetration Pad, Pellets in 30 in. circle, Sheets penetrated by 3 Pellets. Includes rows for BRIDGEPORT PAPER SHEELS.

Table with columns: Brand, Pellets in Bull's Eye, Pellets in Penetration Pad, Pellets in 30 in. circle, Sheets penetrated by 3 Pellets. Includes rows for BRIDGEPORT PAPER SHEELS.

Table with columns: Brand, Pellets in Bull's Eye, Pellets in Penetration Pad, Pellets in 30 in. circle, Sheets penetrated by 3 Pellets. Includes rows for BRIDGEPORT PAPER SHEELS.

Table with columns: Brand, Pellets in Bull's Eye, Pellets in Penetration Pad, Pellets in 30 in. circle, Sheets penetrated by 3 Pellets. Includes rows for BRIDGEPORT PAPER SHEELS.

All the shells were loaded precisely the same as near as I could load them, with one black and one pink edge wad over powder, and one black edge wad over shot. I have no comment to make on the relative merits of either shell, the figures stand for themselves. I could see no difference in the recoil of the paper shells. I think the reliability of the Bridgeport paper shell is worthy of mention, having used a large number in the past three years without having one misfire, I can't say as much for any other paper shell I ever used.



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INDOLENT IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.

[POST OFFICE BOX 2332.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* \* \* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, NOVEMBER 8, 1877.

To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS,

S. H. TURRILL, Chicago,

Business Manager.

Western Manager.

—We had the pleasure last week of a call from Profs. Baird and Gill, of the Smithsonian Institution; Commander L. A. Beardslee, of the United States Navy, and Major Ferguson.

MISSOURI, KANSAS AND TEXAS.—The *Great Southwest*, a journal published by Jas. D. Brown, Esq., in the interest of the M. K. and T. railroad, copies a page of information from "Hallock's Gazetteer," respecting the game to be found along its line. Nine counties are included. We have enjoyed some fine hunting through this domain. For quail and prairie fowl it can hardly be excelled.

STEALING AN ELEPHANT.—We all know how sad a person that proverbial gentleman was who found "an elephant on his hands." We are aware also that the misery was not of his own making; the creature was given to him. This is why a sympathetic world sheds tears over his misfortunes. But what tears have we to mingle with the remorseful overflow that would be certain to attend the possession of an elephant that was stolen? We cannot conceive of a foolhardiness which would tempt Divine Providence by stealing an elephant, and yet the crime has actually been committed. Only last Thursday four men endeavored to spirit away one of the performing elephants of the London Circus, now exhibiting at Gilmore's Garden, in Twenty-seventh street. Shades of all the Pachydermata, defend us!

ERNEST MORRIS.—This young naturalist, whose South American explorations have deservedly attracted much attention among scientific bodies, and Mr. E. P. Rand, the well-known botanist of Boston, sailed from this city last Friday on the ship Jacob E. Ridgeway, for Brazil. It is their intention to make an extended tour of exploration of the valley of the Amazon and its southern branches. The pluck displayed by Mr. Morris in his previous expedition, and the success which crowned his efforts in the face of seemingly unsurmountable obstacles, lead us to anticipate from his present tour valuable results. His many friends will learn with pleasure that the expedition is undertaken under the most favorable circumstances; and the young explorer returns to his work bearing with him the sympathy and well wishes of many newly found friends.

SHALL THE CENTENNIAL RIFLE MATCH BE ABANDONED?

THE question which is agitating the rifle world at the present time is, what shall become of the Centennial trophy?

The National Rifle Association have expended some \$1,500 on this elaborate and characteristic prize, and it has certainly been offered by them as a prize to the riflemen of the world as a true emblem of the championship. In fact, everywhere, it is the acquisition of this great trophy toward which all riflemen aspire.

On the first occasion it was contested for by teams from Ireland, Scotland, Canada, Australia and America, and on the second occasion by a joint team, representing Great Britain and Ireland against America. On both occasions the Americans were victorious and we now hold the trophy, and with it the championship of the world. The English portion of the unsuccessful competitors in the last match now insist that no other team should hereafter be allowed to compete for the trophy, except a single one representing Great Britain and Ireland. They are perfectly willing that Canada, Australia and other colonies should send separate teams, but they positively refuse to allow either Ireland or Scotland to do so, in which, by the way, they seem to concede their position to be untenable. The National Rifle Association had met this difficulty in a proper spirit by declaring that if these countries can agree among themselves to have a joint team, it would be received. If separate teams are sent they will also be welcome. The N. R. A. have even gone so far as to say "that a joint team will be received, even if Ireland or Scotland should send a separate one." This, certainly, is liberal to the last degree.

It is plain that the chances of America winning are less if a number of teams are in the field than where there is but one, and it rests with our adversaries to decide for themselves what they will do. But this is not satisfactory, apparently, because it looks as if the majority of the Irish members of the team would decline becoming members of a joint team. It is, therefore, now proposed to organize an entirely independent match, which shall be open alone to teams from Great Britain and Ireland. This is simply a plan to do indirectly what it has been found cannot be done directly. Its practical effect would be to abolish the match for the Centennial Trophy, and to cause perpetual heart-burnings and bickerings between riflemen at home as well as abroad.

The American people will not be prone to forget that Ireland was the first country that organized the system of international rifle matches, or that American riflemen visiting that country were welcomed as the friends of the nation, and received hospitality and honors never before extended to any private individuals. It does not seem likely, then, that American riflemen will consent, under any circumstances, to the organization of an international rifle match, in which Ireland will be shut out from the opportunity to compete, providing she desires to do so.

There are other difficulties connected with the proposed competition. Either this new match is to be greater than that for the Centennial trophy, or it is not. If it is, the latter will soon degenerate into a small affair, and foreign teams will not trouble themselves to engage in it. If it is not, it can hardly be of sufficient importance to justify either America or Great Britain participating in it. As a matter of course it is to be a match for the championship; yet how will it determine that question? If America sends a team to Wimbledon to shoot at the meet of the English N. R. A. in July next, and America is defeated, the English will claim the championship. If the American team wins the match for the Centennial trophy, to be shot in America in September, America will claim the championship. Who is to decide between them?

America now is the champion. She has provided an annual contest in which the validity of that title of champion can be determined. Why should she now now lay aside all this advantage, and organize another match, not to suit herself, but her unsuccessful competitors?

NATURAL HISTORY AND GEOGRAPHY.

SOMETHING very curious is the effect natural history seems to be having on the localizing, as it were, of lands or continents, which have long ago disappeared. To make this matter plain, suppose we assume an imaginary case. Take an island much nearer to Africa than to Asia, and say that on this island certain forms of mammals are discovered which are identical with those in Asia, and of which none exist in Africa. Now, although the island may be closer to Africa than to Asia, the probabilities are that at some far distant time there was a continuity of land, or at least a range of islands extending between Asia and the present island. It would be difficult otherwise to explain the presence of such forms. Of course to a certain extent this is theoretical, but still when deep sea explorations show that between certain points the bed of the ocean is higher, it may be supposed that in past ages some gradual depression took place, and that what is an isolated island now is nothing more than the highest portion of a continent or of some lofty island, which alone has kept above the surface of the waters. To bring now a case in point. Zoological considerations, together with the fauna of Madagascar, approach much closer to the Asiatic types than to the African ones. But Madagascar is much nearer to Africa than to Asia. In a recent work on the birds of Madagascar, that distinguished ornithologist, Dr. Hartlaub,

points out this assimilation of types to the Asiatic ones. Madagascar is then supposed to have been either once united with India, or to have formed the extreme western island of an archipelago, which once stretched out far to the eastward. It is even thought necessary to give these lost lands a name, and that of "Lemuria" is proposed. A very pretty idea of a similar character was agitated some time ago in regard to the strange habits of the Lemming, a little rodent, which at times is the pest of Norway. Now the lemming seems to have a positive instinct at certain seasons of the year to march directly in a northwestern course. Nothing will stop him; neither the lakes nor fiords of Scandinavia. Millions are drowned in the rivers, still they drive blindly on toward one direction. Arriving at the brink of the ocean, this does not stop these little creatures. In they plunge and all perish. Now come in a very ingenious supposition. A learned natural historian argues as follows: The original lemmings had implanted in them the instinct of migration, and in former ages were in the habit, during certain seasons, of seeking some land far to the westward of Norway. In this distant country either the lemmings found food or the conveniences for rearing their young. It is this same instinct, ever perpetuated, that impels their descendants to follow out the same course. The final destination of the primitive lemming might have been Iceland, perhaps Greenland. The theory then is that in former ages the present northwest coast of Europe was joined either by Greenland or by some land to Iceland, and that submergence has separated to-day the Old from the New World.

VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.—No. 4.

BY THE EDITOR.

NOVEMBER 8, 1877.

FELLOW EDITORS:

I am convinced that your printer believes that "what is worth doing at all, is worth doing well," for I find in my letter of Nov. 1st, line 31st, that he has cooked my goose "artificially." I did wish to have it done artistically; but perhaps it makes little difference to the goose now. (By the way, that goose was a duck.)

Other changes from my original manuscript are more serious. For instance, I intended that my directions to sportsmen visiting northern Michigan should be so explicit that none should go astray who followed them; yet, when I write "northeast," the printer sends them toward the equator, and when I write "southwest," he directs them toward the north pole! Now, if any readers of my letter should become lost during their rambles and die in the woods, you can imagine whose funeral the surviving relatives will contract for next. Meanwhile, the derelict printer will live on to play havoc with the types and tamper with the "devil," whose services he continually courts! I am now better able to appreciate the indignation of such of your correspondents as complain that their sentences have been mangled and their meaning distorted in transit from the quill-driver to the press. Before, I could hardly realize the burden of distress they occasionally throw at our feet. Verily, it is hard to see "the rain fall upon the unjust as well as the just"—unless there comes a shower as abundant and discriminating as that which drove Noah into the ark for safety. Then there is comfort for those under cover.

N'importe! Let us back to Petoskey, on the Michigan shore, where the quiet summer sea reflects the unclouded blue of the sky above it. The glow of the morning sun is on its bosom and flashes into the eye with a blinding gleam. There is no ripple on the surface, and one can look down through its translucent depths and see great rocks on the bottom, and big Mackinaw trout swimming twenty feet below. If we are out in a boat on the bay and look in toward the land, we perceive that the village of Petoskey occupies a series of picturesque undulations that spread out on either hand and rise to the rear in the form of an amphitheatre. A lofty limestone cliff flanks the town on the east. Its top is crowned with trees, among which are discovered the tents of many vacation tourists who are camping out. Behind them rises an over-topping eminence, dotted with pretentious villas of wealthy residents. From the verge of this cliff the outlook is superb. Opposite, and five miles distant, is the ridge of hills that line the opposite side of the Little Traverse Bay. These sweep round in a symmetrical curve to the head of the bay two miles to our right, and then follow the hither shore until they rise and terminate in the cliff on which we stand.

All along in that direction, as far as sight can reach, we can trace the white line of the pebbly shore limned against the green of the hills; and then from the base of our cliff it continues in a sweep of two miles or more to the left in the form of a crescent, and ends in a wooded point. Tree-covered hills slope gently back and upward from the beach, and pretty cottages peep out from among their branches. The principal part of the town lies in the bowl of the amphitheatre, from which a practicable road leads through a ravine to the long pier which projects from the hollow of the crescent into the bay. This pier gives additional character and life to the scenery. Not far from the road Bear River debouches. Its sparkling waters flow out of Bear Lake a few miles inland, where Mr. Hughtart, the president of the Grand Rapids & Indiana Railroad, has his family shooting-box. There are trout in the river, but a small mill located just where the river flows into the lake has driven them from the vicinity of Petoskey, where they were numerous five years ago. Both mill and dam are suffering from neglect, and we may remark, by

way of encouragement to ardent anglers, that the latter is a dam site nearer dilapidation than the former.

As we have intimated, the town is the growth of about five years. The railroad, with its steamboat connections on the lakes, has built it up. The stores and dwellings are chiefly of two or three stories, neatly painted white. Plank sidewalks are constructed all over the town. There are two excellent hotels of three stories in height, with inviting piazzas for mid-summer shade, having creditable stables attached. One is called the "Occidental," and is kept by Mr. Bradley; the other, the "Cushman House," by the Cushman brothers. The table at each is good, but I think that friend Bradley is apt to institute a good dinner at the expense of the other two meals. An average adjustment would suit better. There are, besides, several very desirable boarding-houses; also a bank, a news-room, a cottage bowling-alley near the cliff, several well-kept billiard rooms and restaurants, good barber-shops and various other institutions for useful service or amusement. The railroad depot and shops, with the coming and going of daily steamboats, stages and trains, with an occasional coastwise vessel at the pier, give a business bustle to the place that is quite exhilarating. Upon the whole the *tout ensemble* is metropolitan. Shade trees have been profusely set out where needed, and the nucleus of a Methodist camp ground has been formed, the railroad company having donated several hundred acres of land near by, on which a few cottages have already been built. What is already done has been well done, and the impression one receives is the probability of substantial permanence if not extended growth. Central town lots are held at \$1,000 each and upward. One contemplated public improvement is the erection of a lamp post and lantern near the town pump, which is located exactly in the centre of the sidewalk on one of the most traveled streets. Strangers make no effort to go around this obstruction in dark nights. The population of Petoskey is about 5,000.

It will be seen that Petoskey offers considerable attractions to summer visitors who may desire to make it headquarters for side excursions, and the erection of a large watering-place hotel on the brow of the cliff is talked of. For local out-of-door amusements there are boating, sailing, bathing and fishing in the bay; walks and investigations along the beach; picnics in the groves; drives to Bear Lake, Round Lake and Crooked Lake—all of which contain bass and pickerel; and hourly excursions by steamer across the bay to Little Traverse village, an Indian reservation, where the red man luxuriates after his own red fashion.

The city of Petoskey honors the name of one of the higher-toned of these aboriginals who still lives and occupies a large two-story frame house near the mouth of Bear River on the outskirts of the town. Some of Petoskey's daughters have married white folks, one of whom keeps an Indian nicknack and variety store of the pretentious height of three stories. The few Indians of Petoskey town are quite civilized; males and females both dress as neatly as most residents of the place, and in the same fashion. Old Petoskey is the most well-to-do hair-lifter that I ever came across in my extended wanderings. I am not sure but that he has other daughters yet in market.

The trip across the bay to Little Traverse Village is novel and most enjoyable. To a stranger, who watches the gulls dipping into its mirror-like surface in July and August, it seems incredible that a sheet of water so land-locked can ever be lashed into the tempestuous sea it sometimes is; yet it affords absolutely no shelter to vessels. They can lie at the pier only in calm weather; and even in mid-summer a casual storm or squall does much mischief to shipping. The so-called harbor is open and directly exposed to the most gale-bearing winds that blow; but vessels can generally take timely warning and run over to Little Traverse harbor, which is the completest shelter I ever saw. It is protected by lofty hills to the north and east. On the west a spit makes out from the mainland in a semi-circular curve, and incloses the little sheet of water lovingly and securely in its embrace. The entrance is on the south, and no one approaching it from any other point of the compass would ever surmise that a harbor was there. It is, however, deep enough and large enough to shelter an armada.

The houses of Little Traverse are chiefly the unpainted, one-story log or board cabins of the Indians of the reservation. The curiosities of the place are a dirty little mission church, with an altar of tawdry tinsel, and the inevitable old woman, whose age is anywhere from 60 to 130 years. As a local curiosity, to while away the half hour allowed ashore, she may be worth a minute's attention; but the sensible visitor would prefer to watch the boiling springs on the pebbly beach than to listen to the bubbings of her garrulity. These springs are three in number, all very cold; the largest discharges a volume of water sufficient for a mill power. How these half-civilized red-skins earn a living is mysterious. A protracted indiction into the arts of husbandry has not yet made them tillers of the soil. Their houses are kept in fair order, however, and there is less filth apparent around them than in many suburban purlieus.

After a hasty climb to the bluff behind the town and a stroll along the beach, we return to Petoskey, and having decided to visit the island of Mackinaw, book for a passage on the little, rough-weather steamer, Van Raalte. She is a quaint but staunch craft, having a cosy enough cabin and seven or eight state-rooms. Her certificate shows that her captain, Allan Dodge, is qualified by a twenty-years' experience as captain, pilot and engineer on four of the great lakes. This is sufficient assurance of capability, and we therefore confidently commit ourselves to his care, and grope our way out of the

bay under the dim starlight of a somewhat boisterous August night. At three o'clock in the morning, after a sail of five hours, we are summarily bounced out of bed, and, having dressed with some celerity, are hustled out upon a wharf, which we are told is at our destination. Two comfortable hacks convey a party of us to "Old Mission" Hotel, and we again betake ourselves to another interval of sleep without having more than a conception of the place where we are. Meanwhile the steamboat continues on to complete her trip to Cheboygan, leaving us a "lay-over" of two days, at the end of which time she will be around again and takes us up.

I am assured that no one who has ever visited the Island of Mackinaw will ever regret it. I found its natural local attractions more romantic and pleasurable than those of most places I have visited. It is about nine miles in circumference, and there are fine carriage drives across it with lateral roads to points of interest on its sea-girl boundary. I wandered on foot wherever I listed. I visited the site of the ancient fort which the British drove the Americans out of and occupied in 1812. It was a terrific struggle for possession and defense, during which a battery of a single gun was brought into play on each side, with havoc that the historian has never dared transmit to an anxious posterity. Some ruins of the old stockade and earth works remain. Just here is a farm and buildings which occupy the centre of the island. It is the only farm on it. All the rest of the island, not including the town site, has been set aside as a national park. Its natural points of interest have been designated as follows: British Landing, Friendship's Altar, Scott's Cape, Sugar Loaf, Arch Rock, Fort Holmes, Maiden's Rock, Fairy Arch of the Giant's Stairway, Leaning Rock, Point Lookout, Robinson's Folly, Devil's Kitchen, Lover's Leap, Skull Cave and Chimney Rock. As may be inferred from the names these objects are precipitous cliffs, caves, arched rocks or conical peaks. The most impressive are: Point Lookout, a sheer precipice southeast side of the island, from which a far-reaching view can be obtained. It is an angle of the cliffs, and its summit is about 200 feet above the level of the lake. The Arch Rock is an abutment and arch thrown out from the main body, or rather cut off from the main cliff, at nearly a right angle with it. Its summit is 150 feet above the lake, the spring of the arch is 110 feet and the span about ninety feet. The arch is three feet wide, and visitors often cross, though the feat is trying to the nerves. The Sugar Loaf is an isolated limestone rock, of a conical shape, some eighty feet high, standing near the centre of the island. To climb to the apex is considered a feat of some difficulty, but I have seen it done by two ladies. There is a cave in its side about one-third of its height from the base, large enough to accommodate half a dozen persons. In the Cave of Skulls a party of Sioux once took refuge from their enemies, the Ottawas, more than a hundred years ago; but the Ottawas kept fires burning at the entrance until all the inmates were suffocated.

Most correspondents entertain their readers with a history of the early French occupation, and the subsequent triangular struggle for possession by the English, French and Indians, with some synopsis of what the books contain respecting the fur company's occupation, of which substantial evidences still remain; but I prefer to speak of things present, so that the reader may gather a better idea than I had before my visit of what may be seen there now. Certainly, a sail into the Strait of Mackinaw on a calm day is one of the most romantic, not only by reason of its surroundings, but of its historical associations to which we have referred. From the offing one sees the town stretched along a semi-circular shore under a bluff, very much as Little Traverse Village lies. Three parallel streets occupy the level longitudinally, while the ramparts of Fort Mackinaw crown the cliffs behind. The fortifications are whitewashed, and, being embedded in foliage, are most picturesque. Although several of the buildings are old, like the John Jacob Astor House and the Old Mission they have been modernized, and the aspect of the picture is anything but antique. Several pretty summer residences, with gardens and fountains, adorn the street that follows the line of the beach, and lend a home-like aspect. Numerous two-masted Mackinaw boats and other craft at anchor off shore, or alongside the little piers that reach out from land, give animation to the pretty scene. Several islands are within sight, and the extreme point of the peninsula of Michigan lies opposite. Over there is located Mackinaw City (on paper), and the prospective terminus of the Grand Rapids and Indiana Railroad, when it shall be extended. The principal hotels are the Old Mission, which I prefer; the Island House, a sort of hotel-boarding-house with a pretty lawn and flower garden; the John Jacob Astor House, in the centre of the village, with its entrance flush with the narrow street; and the Lake View House, at the western extremity of the town. All are comfortable and well kept, at from \$2 to \$3 per day. Altogether the island is one of the most unique and delightful places in the world. Twenty-five years ago, Charles Lanman, the author-tourist, who now enjoys a hale old age, described Mackinaw as he saw it, approaching it from the North.

"First was a perpendicular bluff crowned with a diadem of foliage, at the foot of which was an extensive beach occupied by an Indian encampment, where the rude barbarians were sunning themselves like turtles, playing fantastic games, repairing their canoes, making mats, or cooking their evening meal as fancy or necessity impelled. One sudden turn and our vessel was gliding gently into a crescent bay which was skirted with a cluster of trading houses and ancient looking dwellings, above which, on a bluff, was a snow white fortress, with soldiers marching to and fro upon the battlements. \* \* \* From time immemorial the Indians have been annually sum-

moned to this island for the purpose of receiving their regular installments from the government in the shape of merchandise and money, and on these occasions it is not uncommon to see an assembly of three thousand fantastically dressed savages. \* \* \* Like so many of the beautiful places on our Western frontier, Mackinaw is now in a transition state. Heretofore it has been the Indian's congregating place, but its aboriginal glory is rapidly departing, and it will soon be the fashionable resort of summer travelers."

These predictions have been verified. The peculiar location, picturesque cliff scenery of Mackinaw, and the tonic character of its climate, render it one of the most attractive watering-places in the country. It can be reached by steamer from Chicago and Detroit, and there is also a line running to Sault Ste Marie, which connects there with Canadian steamers and points on both the north and south shores of Lake Superior. Of course the place is entirely ice-bound in winter, and all the hotels and cottages are deserted. The monotony is only broken by the arrival of a monthly mail, or the sound of reveille on the ramparts of the fort.

As I contemplated the beautiful island in the haze and mirage of an August morning, as our little steam yacht spluttered away from it toward Bois Blanc and Cheboygan, it was an enchanted creation of dreamland, whose white cliffs were ethereal structures, reflecting the light of a glory whose source was brighter than the sun. Little by little it disappeared in the distance until it became a line of light on the horizon. Bois Blanc Island was abreast of us in the near foreground, and the rattle of lumber on the deck of a schooner becalmed dispelled the illusion and reverie alike. Then a long line of painted casks marking a channel filed past us, and presently a steam tug puffing by noisily, going lakeward; then turning toward the land, we saw tall smoke-stacks of saw-mills reeking forth black volumes of smoke, and the clustering houses of a large town. Right before us were wharves with shipping and steam-tugs, and a wide strip of dark-colored water led directly thereto, marking the channel where the Cheboygan River empties its waters into the clearer and transparent waters of the lake. This was our starting-point for the first chain of interior lakes which we proposed to visit. How we proceeded and what we accomplished I will relate in my next letter.

HALLOCK.

AMERICAN INSTITUTE EXHIBITION.—The fine halls of the American Institute Exhibition are crowded day and night, and the opinion is that a better or more complete show of the industry of the country never before was brought together in the metropolis. In rods, tackle, hooks, reels, flies and the whole paraphernalia of the fisherman's outfit, the display made by Messrs. Conroy, Bissett & Malleson, is wonderfully complete. In several handsome cases may be seen rods of the most exquisite make and finish, either those so light and supple yet so strong, suited to trout fishing, or those of more massive build, adapted to the heavy bass which make the spray fly off Newport. An hour can be spent profitably in examining the endless variety of lines, hooks, flies and reels. The excellent reputation of Messrs. Conroy, Bissett & Malleson is fully sustained by the display made by them. It is a wonder that there are not other exhibitors. The Bohemian Glass Works, who have their wares smashed to pieces all over the country every day, who manufacture the glass balls now used in trap-shooting, make also a fine show. The rough glass balls which serve for the same purpose, to which Capt. Bogardus has given his name, are also on exhibition, made by Messrs. Hagerty Bros. & Co. From the quantity of these glass balls which are being shattered, their use extending every day, we might almost fancy that the price of glass for window panes and tumblers would be on the rise. That beautiful invention the sand blast, which allows of the ornamentation of glass, at very cheap rates, has some very fine exhibits at the fair. Though a mechanical process in some respects, nothing can exceed the elegance and grace of the designs, and the admirable character of the work. The various specimens exhibited by Messrs. Hayes & Phillips, of 153 and 155 Centre street, attract particular attention.

MAJOR LEECH.—We call attention to a very kind letter, addressed to us by our very much esteemed friend Major Arthur B. Leech. The gallant Captain of the Irish team has a scheme, which we now present to the notice of American riflemen. This suggestion of Major Leech's is not entirely novel; it is not to be regarded as a challenge. With the most pleasant remembrances of Major Leech, in which we are sure all the readers of the FOREST AND STREAM AND ROD AND GUN unite, we trust to hear frequently from this gentleman, who has done so much to advance rifle shooting in the United States.

—Oscar Jasigi, Esq., who has served for considerable time as the Turkish consul at Boston, has just been promoted by the Government of the Sublime Porte to be Consul-General. His brother sportsmen will tender their congratulations. His Excellency will spend several weeks next winter at Charlotte Harbor, on the Gulf coast of Florida. We may mention, as an evidence of this gentleman's enthusiasm, that he has twice crossed Newfoundland in the interest of sport.

ART LECTURES.—Rev. J. Leonard Corning, who has devoted several years in Europe to the study of the History of Art, has been invited by a number of our most eminent citizens to give a course of lectures on the subject. The eight lectures are to be given in the hall of the Y. M. C. A., beginning November 12.

FIGHTING WITH COGNAC.—When one thinks about it, fighting with cognac, or wrestling with rum, must amount to pretty much the same thing, and may be held up as a topic for temperance lecturers, only in the present case Cognac is a horse, and apparently a very vicious one, at least Professor R. H. Tapp must think so. No amount of handling, gentling, or even taping this fiend of a horse with the bigger end of a whip seemed to do him good. Of course, the San Francisco reporter, like his Chicago confrere, is much given to dashing and high-spirited language, and the terrific onset between the horse, Cognac, and the professor may be taken—say, in a limited kind of way, especially that portion of the account which tells how the heroic lady visitor went for that infuriated stallion with her parasol, and beat him. We may conclude, however, that it was nip and tuck between the horse and Tapp, and which will be tamed, the beast or the man, awaits further disclosures.

DOG PORTRAITS.—From Louisville we are in receipt of a whole series of very clever photographs, the life-like semblances of the noted winners of the Louisville Bench Show. Of course, some dogs without aesthetic tastes will roll out their tongues and won't be taken "pretty"; but that is no fault of the artist. There is one picture of Fan and her seven pups, which is charming. The mother looks so sedate, and the puppies so fat and jolly. Doney's semblance, a philosophical looking setter, is quite striking. The whole collection is excellent and highly creditable to the artist, Mr. Frank Wybrant, of Louisville. Of course, Mr. Wybrant must be a sportsman, otherwise he never could have been able to catch the exact pose of the dogs. We should suppose that for sporting albums, Mr. Wybrant's pictures would be in great demand. Pictures of high-bred dogs are always of interest and materially assist a purchaser in determining his choice of dogs when desiring to add to his kennel stock.

TROUBLE AT THE AQUARIUM.—The animals in their adopted quarters in Thirty-fifth street are so liable to accident and disease that the management keeps a doctor constantly in attendance. The other day one of the giraffes died. Half an hour afterward, while they were giving the hippopotamus his breakfast, he opened his mouth so wide that it frightened another giraffe, which poked his head through the roof, knocking Mr. Hamilton off to the ground, and making a hole in the sidewalk seven inches deep. Mr. Hamilton's case is a hard one. He will probably live—but the giraffe is expected to die.

We have to say, however, that order reigns in the aquarium now, and that the attractions are as many as ever.

FATAL ACCIDENT TO MR. W. G. WEST.—We regret to announce the death of Mr. William G. West, at Yankton, D. T. This sad event resulted from the accidental discharge of a gun while hunting in a wagon on the prairie. The deceased was a brother of Judge I. E. West, formerly of Newbern, N. C. Mr. W. G. West was a gallant soldier and had distinguished himself in the service in the principle battles of the war, coming off without a scratch. Oh! when will such terrible accidents as this teach greater care in handling arms? For ourselves we never take a loaded gun into a wagon, unless we anticipate a halt from road agents.

GAME PROTECTION.

ILLEGAL DUCK SHOOTING ON ONONDAGA LAKE.—EDITOR FOREST AND STREAM: The enclosed clipping from the Syracuse Courier of to-day will show you how some of our sportsmen (2) proceed to capture the wary wild duck. The game-laws of New York distinctly state that no person shall sail for any wild fowl, or shoot at any wild goose, brant or ducks from any boat or vessel propelled by steam or sails, or from any boat or other structure attached to the same, under a penalty of ten dollars, except upon the waters of Chautauqua Lake. This is the first time the attention of the papers has been called to the pursuit of wild fowls by means of steam yachts, but it is by no means the first time it has been practiced on our lake. We have here in Syracuse two sportsmen's clubs, in active operation, yet within two miles of the city limits I have seen two batteries anchored out in the lake. In section forty-nine (49) Game-laws of New York, the penalty for this is \$100. Notwithstanding this, day after day last fall and in spring ducks were shot from these batteries or sink boxes and nothing was ever done about it.

X. Y. Z. "We have had placed in our possession the names of several parties who within the past week have flagrantly violated the game laws, and that under the very noses of our local Sportsmen's Clubs. It appears that the owners of one or two of the steam yachts which have plied on the waters of Onondaga lake, during the past summer, have brought these fleet craft into a new use in duck shooting, and as a natural consequence have driven everything that flies off the lake to less dangerous localities. On several occasions these steamers have been loaded with poachers who have pursued the flocking duck, throughout the lake, and at every opportunity worked terrible carnage among the birds, opening a battery of ten or twelve guns upon them, whenever within range. We are informed that one day last week there were thousands of duck on the lake, but that these outlawed depredations frightened them away in twenty-four hours until not even a pinfeather could be found. If we are not very much mistaken there is a law in operation which prohibits the shooting of game from a sail or steam boat, and this law should be regarded by all genuine sportsmen, and enforced to the cost of all such as cannot be counted in this class. We have been further informed that some of the men who have been guilty of such willful destruction of game have the reputation of being "members in good standing" of our local associations for the protection of fish and game. Time was when gentlemen could spend a day very pleasantly at Onondaga lake with a gun, and come home with a plenteous game bag, but there is

only left a memory of those halcyon days. It might have been otherwise, but never will be, as long as a deadly warfare is waged against game coming to our shores, and our sportsmen's associations are satisfied to blaze away at maimed pigeons, lifed out of a spring trap."

We are glad to see that the Syracuse Courier has directed public attention to the slaughter of ducks on Onondaga Lake. Odium should be cast on people who grossly violate the laws. There is no use of being mealy-mouthed about such matters. The names of the offenders should be printed.

CALIFORNIA QUAIL IN ILLINOIS.—Macomb, Oct. 28.—Three years ago last March the Sporting Club of this city sent to California and got four dozen of California quails, and put them out on the farms near here. They layed and hatched through the summer, and seemed to be perfectly contented with their new home, till about the first of October, when every one disappeared, and none have been seen since in this section. What do you suppose became of them? What has been the success of others who have imported these birds from California to the West and South? W. O. B.

We think a very thorough trial of raising California quail was attempted in the neighborhood of Baltimore, some three years ago, but without success. As it is a question of great interest, perhaps some of our correspondents could furnish us with the information as to the chances of raising these birds in the Middle and Eastern States. It is quite likely that the California bird cannot stand a cold winter.

WHAT IS A GAME CLUB?—Niagara Falls, Nov. 1.—Is a shooting club for the purpose of protecting game and fish, or for exterminating them? We have a club here of about fifty members, composed of the richest and most influential people in the town. In fact all of the officers of the village, Pres. J. P.'s, police and all belong to the club, and they violate the law openly; and I never knew them to prosecute any one, though they have had innumerable chances. For the last two weeks three of them have been out every day shooting quail, and calling them woodcock or partridges as their consciences saw fit, and carrying them in their hands in plain sight.

C. S. RICE. We do not wonder that our correspondent is puzzled and indignant. Game clubs are ostensibly for the protection of game as well as for the enjoyment of legitimate shooting in its season, and it is rarely that we have occasion to record such delinquencies as the above. A "sportsman's club" whose members are defiant violators is not only false in its spirit, but a standing reproach to the cause.

The Rifle.

CREEDMOOR.—On Saturday last it blew great guns. It was hard enough to stand alone without being required to hold a rifle steady. In consequence of this circumstance many good shots declined to enter in the military match for the Wylie badge, for fear of impeding their previous records as riflemen. Long-range marksmen found it necessary to allow 11 points on their wind gauges for a "left wind," and a considerable number would not enter in the match for the Sharps prize of \$250 in gold, which was called at 10:30 A. M. As the conditions governing the contest required ten entries to constitute a match, and it was impossible to obtain that number, it was postponed for the season. The Wylie match commenced at 2 o'clock. There were eleven entries, and the considerations were a gold badge to the maker of the highest score, and one-quarter of the entrance money to the second highest score. The conditions and scores were as follows—Open to all members of the National Rifle Association and the National Guard; distances, 300 and 500 yards; seven scoring shots at each distance, without cleaning or sighting shots:

Table with 3 columns: Name, 300 yds., 500 yds., Total. Includes W M Farrow, C H Bagle, Col G D Scott, J H Grolman, S SARGENT, P Mc Morrow, Capt C H Truslow, F C McLeewe, Dr Moreau Morris.

Capt. W. R. Livermore, of the United States Engineers, Willet's Point, Long Island, scored 43 in the same match, and would have been declared the winner, but he inadvertently fired a shot on the wrong target, and his score was accordingly thrown out by Secretary Schermerhorn under the rules.

COMING EVENTS AT CREEDMOOR.—The programme of rifle matches for the present month is as follows: 14th, second competition for the "Skirmishers" badge, and second competition at the running deer for a Winchester repeating rifle; 10th, sixth competition for a Parker shot-gun, and fourth competition for the Marksmen's badge; 17th, fifth competition for the Remington prize of \$300 in gold, sixth competition for the Turf, Field and Farm badge, and second competition for the Spirit of the Times badge. The Washington Grey Cavalry will shoot for prizes on Thanksgiving Day, the 29th.

ARNOLD & CONSTABLE VS. JOURNEY & BERNHAIM.—On Saturday, teams of eight each from Arnold, Constable & Co., and Journey & Bernham, Brooklyn, contested for supremacy at rifle shooting at the Creedmoor, Jr., Range, corner Broadway and Warren. Terms of match: 10 shots per man, 100 yards off-hand. The Brooklyn boys came out ahead with the following score:

Table with 3 columns: Name, Arnold, Constable & Co., Journey & Bernham. Includes J P Rejan, F Hitting, W McQuillan, W R Yarnan, J M Sny, R Bouquet, R Lockwood.

CONLIN'S SHOOTING GALLERY.—The second "Time" competition was shot last week, and the scores and number of shots fired in the "minute-and-a-half" allotted time, show an improvement over the first contest's results. The following

are the names and scores, with number of shots of the ten highest competitors:

Table with 2 columns: Name, Score. Includes Dr Dudley, Dr Widess, G P Work, Hon Shearman Smith, Pierre Lorillard, Jr., N B Thurston, C E King, E Roebing, I C Brace, P Kaupff.

—At the New Orleans Rifle Park, on the 28th of October, there was a fine attendance for practice. In the practice for the coming match for the Press prize, Mr. Henry Guy Carleton made the following score:

Table with 2 columns: Name, Score. Includes Stanford, Davis, Ring, Gotthier, Kresner, Shipley, Muirer, Carleton, Haskins.

Practicing was kept up the entire day. The wind was strong, but tolerably steady. The following were the best practice scores made at the 500-yard range:

Table with 2 columns: Name, Score. Includes Kresner, Carleton, Malone.

Frogmoor (Clear and breezy)—Unusual excitement was created on the Crescent City Rifle Club grounds, caused by the competition for a beautiful gold badge, open to all comers, with military rifles. The prize was determinedly contested for by Messrs. Branch King and Dave Rosenberg, the latter leading and winning the prize, as will be seen by the following scores:

Table with 2 columns: Name, Score. Includes Dave Rosenberg, Branch King, Fred Cook.

—The San Francisco Amateur Long-Range Rifle Club is the name of San Francisco's new club.

—Mr. W. H. Sanford, captain of the New Haven Grays rifle team, has in their behalf forwarded to Captain White of the Hartford City Guard, a challenge for a rifle contest between teams of twelve men from each company. The contest, if it takes place, will be five shots each at 300 and 500 yards, and will probably take place at the New Haven rifle range.

SHOOTING FESTIVAL.—The Schuetzen-Bund der Vereingten Staaten von Nordamerika, which will commence Saturday, June 15 and end Monday, June 24, 1878, causes great excitement among the German shooting associations of New York and neighborhood. The shooting plan is now so far finished, that it will be published next month. The committee on organization uses all efforts to gain those shooting societies that do not yet belong to the Bund as members, and no doubt the coming Schuetzenfest will be one that will give great honor to our German fellow citizens.

S. O. V. —A question was put to us by a correspondent which was somewhat as follows: "If a ball be discharged from a rifle barrel, and at the same time as the ball leaves the muzzle of the piece another ball be dropped from the muzzle of the piece, which will reach the ground first?" In our Answers to Correspondents we think the reply was given rather erroneously, or at least it should have had certain amplifications. Theoretically, if a ball be fired from a smooth bore, both the ball driven from the arm and the one dropped would both land at the same time. If, however, the barrel of the piece was rifled, and a twist was imparted to the projectile (a rotation on its axis), the ball dropped from the muzzle would land first. As this question is a very pretty one, in a later issue we shall be glad to treat the subject at greater length. It is quite an interesting topic, and one worthy of discussion, and by no means as easy of solution as it appears at the first glance.

THE CENTENAL RIFLE MATCH.

EDITOR FOREST AND STREAM—I have been prevented by circumstances from writing earlier to my American friends, to congratulate them upon the great victory lately achieved at Creedmoor. The shooting of the American team was of an excellence never before even dreamed of. Be assured that your triumph, accomplished in a way so highly honorable to your industry, perseverance, pluck and organization, is highly appreciated here.

Your system of management is worthy of imitation, and your admirers will not be slow to follow an example which has resulted in such a triumph, which is the more honorable to your countrymen, manufacturers and all, because it was not until 1874 that long-range shooting was introduced into America, and I am proud to remember that the stimulus which brought that branch of your manufacture so prominently forward then, came from Ireland.

Still, I think the question between breech-loader and muzzle-loader, as a long-range arm, has yet to be decided. That your rifles are improved in precision, even within the last year, is apparent from the few misses (only three) this year as against twenty-two in 1876.

The whole kingdom admires the skill and endurance which carried your men so brilliantly through so trying an ordeal, and your British rivals in the match admire your prowess as much as I do. Although I had not the pleasure of being present on the occasion, I am sure from my former experience that the arrangements at Creedmoor, carried out by my friends, General Shaler, Colonel Wingate and others, were of a character to give the most perfect satisfaction.

Still, much as I admire your skill and value your friendship, I wish you to understand that we do not mean to cease invading your hospitable shores until we bring home the Centennial trophy; nor even then, for it is the intention of many of us to visit America more fre-

quently than was the custom for others to do heretofore. We must watch your progress and try to keep pace with you.

Your friends here will remember the courtesy of the FOREST AND STREAM, whose editor catered so liberally for their sport "out West" in 1874.

I have a scheme in my mind, which I may shortly bring to your notice, for the information of your champion team, but I will reserve it for another occasion.

Believe me, dear sir, your faithful and obliged  
ARTUR B. LEECH.  
DUBLIN, 49 Rutland Square, Oct. 19, 1877.

MAJOR LEECH'S SCHEME.

49 RUTLAND SQUARE, DUBLIN,  
October 20, 1877.

MR. DEAR SIR—It is needless for me to repeat here my admiration of the great skill and endurance which brought to a successful termination, for America, the great match with the British Team for the Centennial Trophy, as I have written at length on the subject to the FOREST AND STREAM, and toward the close of that letter I alluded to a matter, which I did not further particularize, that I would shortly have the pleasure of bringing to your notice, and as there is no reason why I should longer pause to open the subject for the consideration of your association, I shall now proceed to do so.

By the rules of the Centennial Match, the winning team may select the range for the future competition of that trophy, the winners of which are the champion rifle shots of the world so long as they can hold the prize.

The American success at Creedmoor has been so uniform hitherto as to cause it to be asserted that the range gives undue advantage to the American Team, and that perhaps a change of venue might not be unacceptable to your champions. It has occurred to me that some neutral ground, which I before ventured to suggest, might be agreed upon for the next competition.

Again, the Irish and American match is one that, I have reason to believe, it is the wish of the Americans, as it certainly is of the Irish, to perpetuate, and thus to still further induce, as far as rifle shooting intercourse can, that kindly reciprocity of feeling so happily existing; and it is very gratifying to feel that our united efforts to create good will are fully acknowledged on both sides of the Atlantic.

The great World's Exhibition to take place at Paris in 1878, would seem to offer all the advantages of a neutral ground for one or both of these competitions.

If my proposal is favorably received, and if your team decide on coming to Europe next year, I need not say what pleasure it would give us to welcome our American friends once more; and if Paris be selected for the Centennial Match, I have no doubt that an Irish team would be certain to enter for it. That the French authorities would give us facilities for such a trial of skill I have reason to believe, and the terms being already settled, we have but to adhere to the rules of the Centennial Match.

With kind regards to all my friends, believe me to remain,  
Yours very faithfully,  
ARTHUR B. LEECH.  
COL. SOERMERHORN, Sec. N. R. A. of America, N. Y.

MAJOR LEECH.—We take the following from the *Whitehall Review*:

Probably no man in Dublin stands more in that fierce light which beats upon a popular personage than the Major. Not to know him would argue one's self unknown. This is the organizer of victory, the Carnot of the Rifle Match. It is not so much that he himself has shot as that he has been the cause of shooting in others. He is the forerunner of the *franc-tireurs* of Erin. Long before the Lords and Commons met at Wimbledon's Dun, and while yet the Elcho Shield was a chimera, careering through space, the Major set himself like the Prussian strategist, to train in secret a force which should in time go forth to conquer and surprise. He had but narrow means to work with, for the Irishmen legalized to have and use firearms are few, even among the better classes, and so they are likely to remain while the populace makes so capital a shift with the shillelagh or the section of limestone which serves as the *ultima ratio* in the political or religious differences of the isle. Cribbed and confined as he was, the Major wrought wonders. His measures complete, he forthwith declared amicable war against the two Britons, and at the head of eight sharpshooters invaded England. He was defeated in a pitched battle at Putney Heath, and this was but the first of a series of disasters. But he never lost heart; like another Arthur, sans his Excalibur and his Tennyson, he "cheered his Table Round with large, divine and comfortable words," and so scorched their courage to the firing point that they again and again encountered Scot and Saxon till they marked at length the tallest score, and carried the trophy home to Erin. The Major made his triumphal entry that day like a Coriolanus, and then set about the subjugation of the other hemisphere. But he was less successful in a land where one-third of the inhabitants are Majors; at all events he won no spoil from the Yankee. But he wrote a book, with an epigraph, intimating that his ambition as a promoter of rifle shooting "reached the sky," and in other respects betraying a harmless vanity. However, a hireling on a Dublin newspaper was unmuzzled and set to bay the Major. He might as well have bayed the moon, for he never ruffled a feather of the serene complacency which marks every lineament of the genial, high-spirited and deservedly popular gentleman, whose heart is so much in his hobby that when that transition which he hinted at in his volume takes place, it will not be his fault if he does not get up a *tir intercastale* between the shooting stars, with for team captains, say *Uran Major* and himself.

—The *Volunteer Service Gazette* is particularly interesting, as it contains quite a series of letters from Major Leech, Mr. Stamford, S. Young and Mr. John Rigby, in regard to the American Centennial contest. Mr. Rigby's letter is very manly, and to the point. He complains that the English National Rifle Association have not paid sufficient attention to new arms, "and that in endeavoring to reduce all rifle shooting to a dead level of equality, they were really banishing from the association its best friends, and gradually depriving its meetings of all attraction for men of scientific or inventive minds." In regard to his own make of rifle, Mr. Rigby writes as follows:

Four of the British used the Rigby rifle. They loaded, as usual in this climate, without wiping between the shots, and

with ordinary lubrication. They averaged 199½ per man per day, and their best man 204 1-3, or slightly over the best of the Americans. The remaining four Britons used the Metford rifle, and I am informed, adopted a system of cleaning out between the shots. They averaged 191½, and their best man's figure was 194. When we examine the scores of the match itself, conclusions drawn from the practice days are modified. The first day was fine, but hot, American average, 206½; four British with Rigby rifle, 206½; four British with Metford rifle, 200½. The highest individual score (114) would have been credited to Mr. Milner, but that he placed his second bull's eye at 1,000 yards on the wrong target. Sir Henry Halford spoiled a fine score by firing one shot without a bullet.

Mr. Rigby then goes on to say, "That on the final day, though it was calmer, it was ten degrees hotter, and then that the Metford squad improved slightly, making an average of 202½, while the Rigby squad fell off to 201." Mr. Rigby concludes as follows:

We learn from this year's experience that unless the rifle-men of Great Britain resolve to give more attention to long-range shooting they must content themselves with a second rate position, and acknowledge the supremacy of America, and this is by no means so unimportant a matter as many suppose. The success achieved at Creedmoor has been mainly due to the National Rifle Association of America, ably seconded by the exertions of manufacturers of military arms, who desire to make use of the reputation so gained in competing with English manufacturers for the supply of arms to foreign governments.

Mr. Young's communication is rather directed to the excellence of our American team shooting, which, as an art, the gentleman states has not been cultivated in England. Mr. Young makes an important point on "new blood," and how we have been working here to get the best and freshest men to the front:

We thought the Yankee team that came to Wimbledon in 1875 most excellent, but in their team of 1877 only one member of the 1875 team was good enough for a place. This *new blood*, which we so much want, had displaced the *quondam heroes*.

Major Leech's letter is an excellent one, and we regret that want of space prevents our publishing it in full. In speaking of the *Spirit of the Times* match, the Major writes:

In this match all the members of the successful American team took part, as did the British team; there was no *coaching* allowed, and the gross score of our team was superior to the American team in that competition; therefore it is somewhat premature to assume that our Rigby and Metford muzzle-loaders are not still equal to the American breech-loaders in all circumstances of temperature and weather, although possibly at a disadvantage on the particular occasion of a calm day, with the thermometer at 100 degrees in the shade. [The italics are our own.]

In writing about team shooting, Major Leech says:

A team to proceed to America should, if possible, practice together as a team for a considerable time previously, and for this reason alone I am, as I have always been, an advocate for separate teams proceeding for Ireland, England and Scotland, each representing its own country; but when successful, proud of being so on behalf of the United Kingdom.

We have but few comments to make on these letters, most important contributions as they are to the history of rifle shooting. What we honestly believe is that, granting the superiority of our team shooting, American breech-loading rifles are better than English muzzle-loaders. If ever the English, Irish or Scotch teams, individually or collectively, are to beat us, it will be when they introduce breech-loading guns as good or better than ours. There is no difference between the rifle-men of the United Kingdom and our own as to skill.

What shall we call it? Is it pig-headedness? No, let us say rather that conservatism, which makes Englishmen adhere to something or other, which their common sense should have made them abandon long ago. It may be thought stupid on our part "to show where the whip is with which we may be scourged," but we only repeat what is apparent to every rifleman in the United States—"That it is a question of guns and not of men."

—The *Dublin Irish Times*, in an editorial commenting on the late International rifle match at Creedmoor, says: "The men, with one exception, who most distinguished themselves, were Irishmen. Yet it is precisely these men who are debared from taking part in the most important matches at Wimbledon. Worse still, the National Rifle Association (British) seem to have made up their minds to utterly ignore both Ireland and Scotland; and even Sir Henry Halford—in the course of a speech made at Delmonico's, New York, in reply to the toast of 'The British Rifle Team,' which he so ably captained—expressed a strong desire that when next a rifle team from this country went across to America to compete with our Yankee cousins, the Board of Directors of the National Rifle Association of America could arrange so as to make that team the representative team of Great Britain, and not accept additional teams from Scotland and Ireland. Anything more preposterous was surely never heard of. When the so-called International team visits America the respective nationalities are conspicuously paraded, in order to show the closeness and harmony of union between the three countries. When, however, the competitions take place in this country, and at Wimbledon, Irish rifle-men are totally debared from competing for the most important prizes. Anomalies like these should not be allowed to exist; the subject of the rules of the so-called National Rifle Association (British) has engaged the attention of the Council of the Irish Rifle Association, who, we expect, will regard the interests of Irish rifle-men."

—The *Volunteer Service Gazette*, which always writes moderately and sensibly in regard to rifle matters, has the following on the International contest:

We do not intend now to reopen the arguments by which it was, eighteen months ago, sought to prove, on the one side, that this country ought to be represented by three different teams, and on the other that we ought to try to get the best single team we could from the United Kingdom, without caring what proportion of its members came from England, and what from Ireland or Scotland. Neither is it worth

while to consider the ingenious argument brought forward by some of our American friends, that inasmuch as the great Snider match at Wimbledon between English, Irish and Scotch, used to be called by ourselves an "International" match, that, therefore, in an International match in which a foreign country takes part, we ought still to preserve our "nationalities" without regard to the "political" unity of which those nationalities form part. Our only object at present is to urge upon all concerned the great desirability that the directors of the United States National Rifle Association should take the matter seriously in hand, and lay down, once for all, the principle on which foreign teams are admissible to shoot for the great Centennial Trophy in future years. We do not for a moment deny that the question is not a very easy one, or that it seems to be complicated by the assertion which is vigorously made, that the directors are bound to admit separate teams from what we have called "sub-nationalities," because they have once admitted them. We are sure that the decision will be carefully considered, and that it will be accepted without demur, even if it should result in the substitution, as far as we are concerned over here, of two or three independent teams for one really national team. Whatever may be said, a very large body among us, including English, Irish and Scotch, dislike intensely the idea of contending against foreign competitors and against their own countrymen at the same time. An Englishman views with very different feelings a contest with the Irish or the Scotch—among ourselves, as it were—and one in which a foreign opponent is also concerned. We are convinced that this view is strongly held, and that, rightly or wrongly, it will always militate against the formation at least of an "English" team for the Centennial Match. The case is different as regards our Colonies. Theoretically, we should like to see Canada, Australia, etc., ranged upon our side in an International rifle match, but it is clearly practically impossible for any captain to get together a team which shall include, besides our own islands, Canadians and Australians, and we must be content at the best to ask that the United Kingdom should be represented, as a whole, and not in three parts. At any rate, we hope that the question will speedily be settled, and that both the Americans and ourselves may be in future spared the difficulties which arose in 1876.

RIFLE TWIST.—*Editor Forest and Stream*: I write to see if you young riflemen cannot gain some information about the twist of a hunting rifle? Cannot we have a discussion on that subject from rifle makers? I am tired enough of the recoil theory [Amun]. Is it not enough to know that the gun is bound to "kick," any way you fix it? Please "give us a rest" on that, and have something new. The rifle makers, as far as I can find out, use a sharp twist, from an 18 to 30-inch twist (I am speaking of breech-loaders now).

Would also like the best twist for a 40-cal 70 grs. Will the straight shell give less recoil and somewhat velocity (or more) than the bottle-neck. An partial to a 40x70 and explosive bullet for large game, (deer) I mean—we have no larger here. Those posted say the Frank Wesson twist is one turn in 18 inches; Remington, 1 in 20 and 30; Sharps 1 in 20; Ballard, 1 in 20 and 24; Maynard, 1 in 30. And now will the rifle makers tell us what the best twist for a hunting rifle really is?

HUNTING RIFLE.

A RIFLE GALLERY IN A CHURCH.—The "Church of Christian Endeavor," in Brooklyn, has, among other modern improvements, a shooting gallery where the brethren endeavor to hit the bull's-eye. The *Baptist Weekly* hopes the pastor can say: "The weapons of our warfare are not carnal," even if he does practice with pop-guns.

CHANGING MUZZLE-LOADERS TO BREECH-LOADERS.—I believe the principal objection to breech-loading shot guns converted from muzzle-loaders is that, in enlarging the chambers to admit the cartridge, boring out the barrels cuts away so much metal as to greatly reduce their strength and render them unsafe for even moderate charges. For the interest of fellow sportsmen who would like to have muzzle-loaders changed to safe breech-loaders, I wish to suggest to the gun-makers a plan which I am not aware has been before proposed and which I think would obviate the above named objection to the converted guns. It is to enlarge the breeches to the right size for shells by heating the barrels at the breeches and expanding them on a mandrel. This would leave them as strong as new, less the trifling decrease consequent on heating; and I am not sure there would be any diminution of strength if the work was done by a skillful mechanic. I think that by "hammer hardening" the barrels, when heated, their original tenacity would be restored. The expansion would produce a slight external enlargement, detracting a little from the symmetry of the barrels, but this is no serious objection to the plan. I am not a gun maker, and perhaps overlook faults in the plan that will be obvious to professionals. If any of your readers should give me a trial I hope he will communicate the result of his experiment through your columns. E.

Rochester, Oct., 1877.

WINCHESTER RIFLE—MODEL OF 1876

ABOUT THE ABSENCE OF THE SLIDE.

HELENA, M. T., Oct. 12, 1877.

WINCHESTER ARMS CO.:

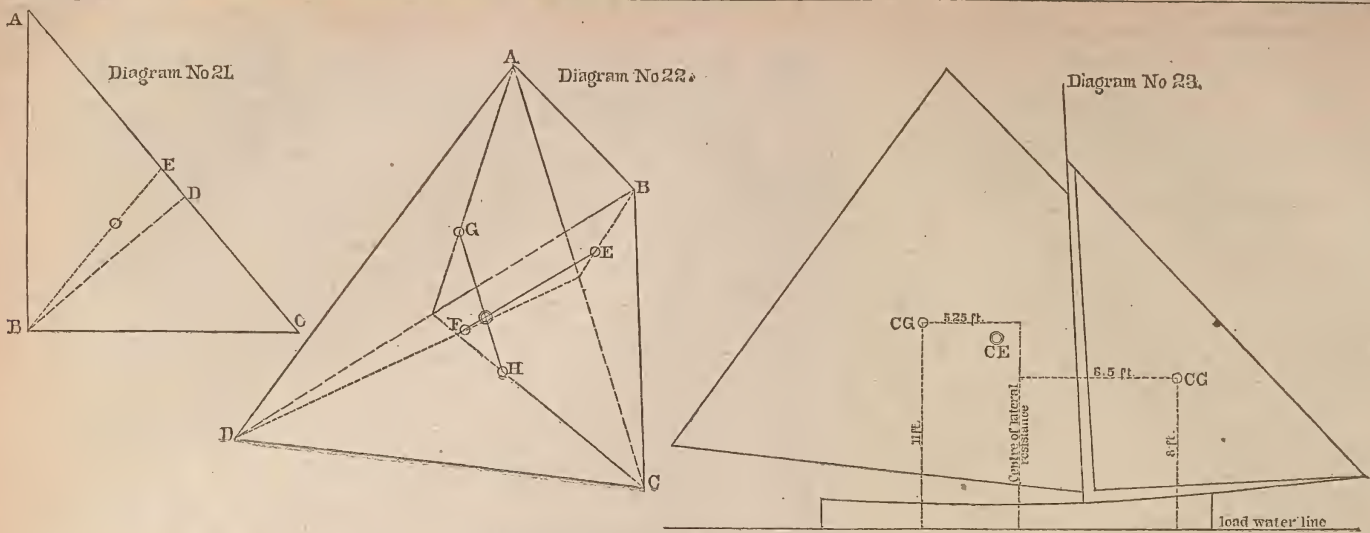
Some time ago I wrote you in regard to more powder in your guns. Was pleased when I saw the model of '76; bought one; tried her, and christened her "Old Mortality No. 2." They are "word leaders" and no mistake. In viewing them with a critic's eye and comparing them with the model of 1873, the question suggested itself—"Why was the slide over the opening omitted?" The slide was considered by gun fanatics a great improvement and a very necessary one. Again, why was it omitted? There must be some reason. Won't you answer through FOREST AND STREAM? FRONTIERSMAN.

NEW HAVEN, Conn., Oct. 21, 1877.

EDITOR FOREST AND STREAM:

Gentlemen—We inclose a letter received to-day, which we answer as requested through your columns. The slide placed up, on the Winchester guns, model 1873, was left off in the model of 1876, as a matter of safety and precaution. Of the great number of people using our Arms Model, 1873, many are ignorant of the proper use of them, and always close the slide over the carrier-hook mortise; and if they find a cartridge with an imperfect head, and it blows the head off, the gas escapes into the breech and lock-work, thereby causing damage that would not occur if the cover was open. There are many of these cartridges in the market for all our guns, made expressly for the purpose of injuring our reputation. Consequently, we have to caution our customers against any cartridges not of our make, as we will not be responsible for any damage to the gun by any cartridge but of our own make. Respectfully yours,

WINCHESTER REPEATING ARMS CO. (Successors),



DIAGRAMS FOR YACHT MODELS.

**Yachting and Boating.**

**HIGH WATER FOR THE WEEK.**

Date.	Boston.		New York.		Charleston	
	H.	M.	H.	M.	H.	M.
Nov. 9.....	2	06	11	09	10	29
Nov. 10.....	2	54	Mid.		11	09
Nov. 11.....	3	42	0	30	11	58
Nov. 12.....	4	35	1	18	0	24
Nov. 13.....	5	29	2	08	1	14
Nov. 14.....	6	23	2	57	2	04
Nov. 15.....	7	15	3	51	2	54
Nov. 16.....	2	06	11	09	10	20

**BOATS AND YACHT BUILDING.**

**BY NAUTICS.**

**DRAWING, MODEL-MAKING, ETC.**

There are other ways of "fairing" the lines and proving the correctness of our drawing, but, if four or more buttock lines are used, we may consider our work "fair," and dispense with any further proof. In our drawing we have made the rabbet of keel the base for the body and sheer plans; but where there is much difference in the draught of water forward and aft, it is customary to make the load water line the base. The water lines in our drawing are parallel with the load line and with one another; if there is much "drag" or difference in the draught of water forward and aft, the intermediate water lines are drawn at equal distances between the load water line and the rabbet of keel. As these papers are designedly elementary, we will confine our remarks to the method explained in the previous papers. Those who wish to pursue the fascinating study of designing are referred to the elaborate work of J. S. Russell—The Modern System of Naval Architecture, price forty dollars; Rankine's Ship-building, price forty dollars; Fincham's Outline of Ship-building, price fifteen dollars; Marrett's Yachts and Yacht-building, price five dollars; Bretts' Notes on Yachts, price three dollars. Also Kemp's new work on Yacht designing, price twenty-three dollars.

The last mentioned work I have not seen, but from the reputation of the author, have no hesitation in recommending it. After the drawing is completed, the designer may wish to make a model, and as model making is a source of considerable amusement and pleasure, I will explain the method of making one from the drawing. Models are usually made to represent one-half of the proposed vessel, and may be made of pine or of alternate pieces of pine and mahogany.

Cut pieces of board the length of the sheer plan, and as thick as the distance from one water line to another, a piece is provided for each water line or other longitudinal division of the sheer plan. The widths to cut the pieces of boards are found from the half breadth plan—the width of each water line at midships, giving the width to cut the pieces of board. Each piece of board has a water line of the half breadth plan marked on it. Cut the several pieces to the outlines marked on them, pile them up on one another in their proper positions, work down the ridges with spoke-shave, gonges and rasp, and finish with sandpaper. If a fine finish is wanted, rub down with oil and pumice stone, varnish and polish. If the displacement of the model is required, the pieces of boards from the proposed load line down should be of the same width and length before cutting, thus forming, when piled together, a block. Weigh the block before cutting, and measure its length, width and depth—from which data the cubical contents can be calculated. After the model is finished, reweigh the part from the load water line down, and the difference between the two weightings gives

the data to compute the displacement to the load water line. If the wood used is of uniform density, and the calculations made with care, the results are quite accurate. The following example which I have worked out will explain the method: Block to proposed load line measured, before cutting, 21.625 inches long, 2.9375 inches wide and 1.6875 inches deep. It weighed twenty-four ounces; cutting reduced its weight to seven ounces, or seven-twenty-fourths of its previous weight. The dimensions of the block, as given above, multiplied by twenty-four to give the dimensions the full size of the proposed boat, would be 43.25 feet long, 5.875 feet wide, and 3.375 feet deep; this reduced to cubic feet equals 875.5 cubic feet; as cutting reduced the weight to seven-twenty-fourths of the whole block, we take seven-twenty-fourths of 875.5 cubic feet as the displacement of one-half the proposed boat. Multiplying by two for displacement of whole boat, we have five hundred cubic feet total displacement. Water weighs 62.5 pounds to the cubic foot; reducing our figures to tons, we have 15.6 tons displacement. The displacement—calculated by Chapman's rules, which are probably the most accurate known—is 14.9 tons. The above method is simple, easily done and sufficiently accurate for small vessels. The position of the "centre of gravity of the displacement" longitudinally, can be found by balancing all that part of the model below the load water line, on a pencil or similar object. Thus far we have considered "half models" such as builders use; to make whole models for model yachts, the pieces of wood used are twice the width of the half breadth plan, and have the water lines drawn on both sides of a central longitudinal line. After the outside of the model is finished, the pieces are taken apart and the interior is cut out, leaving the sides any thickness the builder may fancy. Afterward put on a stem, stern post, keel and deck, gluing all together; polish and varnish. The "centre of effort" of the sails should be at the "point velique," which is found as follows: Step an upright mast at the centre of gravity of displacement, ballast the little vessel until the load line comes down to the level of the water, tie a cord to the mast, and pull the model smartly through the water without jerking; if the bow is depressed in the water, slip the cord lower down on the mast; if the stern is depressed in the water, slip the cord higher up on the mast. Experiment until a point on the mast is found from which the model can be pulled smartly through the water without depressing either bow or stern. This point is the "point velique." If the mast is at the "centre of lateral resistance," the model can also be pulled sideways through the water without any tendency to turn around; if when pulled sideways either end of the boat turns around toward the experimenter—either more keel must be added to that end, or some cut off the other, until the resistance is equal on each side of the point from which the cord pulls. The centre of lateral resistance can be found by cutting a piece of sheet lead into the exact size and shape of the outline of the model below the load water line, and balancing it on a pencil. The balancing point is that on which the vessel turns when acted on by the sails and rudder; for convenience, we call this point the "centre of lateral resistance." Properly speaking, it is the "centre of the vertical longitudinal section immersed." The mode given for finding the centre in question is simple and sufficiently accurate for our purpose. The centre of effort of the sails is the point where, if an imaginary line were drawn either horizontally or perpendicularly through it, the pressure of the wind on one side of the line would balance the pressure on the

other. If the centre of effort of the sails is in the same vertical plane with the centre of lateral resistance of the hull—the vessel in sailing to windward will keep her course without any tendency to turn either way. A vessel is said to have a "lee" or "weather" helm as the position of the centre of effort is before or abaft the centre of lateral resistance. A small amount of weather helm is desirable, therefore arrange the sails so that the centre of effort will be a little abaft the centre of lateral resistance; there is no exact rule for the proper amount. Marrett gives it as .066 to .01 of the length of the load water line for schooners, and for cutters .02 to .05. The area of a triangular sail is found as follows: The triangle A B C, Diagram number twenty-one, represents the jib of a sloop; draw a line perpendicular to the side A C to the point B, multiplying the distance from D to B by the distance from A to C, and divide the amount by two; this gives the required area. The centre of gravity is found by bisecting the side A C, draw a line from B to the bisected point at E, then two-thirds of the distance B E, set off from B toward E will be the centre of gravity of the triangle A B C. The area of the main sail of a vessel is found by dividing the trapezium A B C D—diagram number twenty-two, into two triangles, by a diagonal line from A to C, or from B to D; find the area of each triangle separately and add them together. The centre of gravity of the trapezium A B C D is found by first finding the centre of gravity of each of the four triangles A B C, A C D, A B D and B C D, the four centres are marked on the diagram at E F G H. Join the opposite centres by lines drawn from one to another as shown on the diagram, and the intersection of the lines is the centre of gravity of the trapezium A B C D. If a vessel carries but one sail, the centre of effort is at once known, as it will be at the centre of gravity of the sail. If two or more sails are used, the height of the centre of effort of the combined sails is found by the following rule: multiply the area of each sail by the perpendicular distance of its centre of gravity from the water line, then dividing the sum of these products or "moments" by the sum of the areas, the quotient is the required distance. As an example, diagram number twenty-three is worked out thus:

	Areas.	Height of C. G. above L. W. L.	Moments.
Jib.....	123	8 feet.	984
Mainsail.....	284	11 "	3124
	407		4108

4108 divided by 407 equals 10.09 feet—the height of the centre of effort above the load water line. The position of the centre of effort of the sails, relative to a perpendicular from the water line at the centre of lateral resistance, is found by dividing the difference of the moment of sail before and abaft the perpendicular by the sum of the areas of sails. The moments of sails before perpendicular, are marked *minus*; moments of the shaft the perpendicular, plus; the centre of effort will be before or abaft the perpendicular, according to the preponderance of plus or minus moments. Example:

	Areas.	Dist. of the C G from perp'dr	Moments.
Staysail or jib.	123	8.5 feet minus	1045
Mainsail.....	284	5.26 " plus	1491
	407		

then (1491—1045) divided by 407 equals 1.09 feet—the distance the centre of effort is abaft the perpendicular at the centre of lateral resistance. It is requisite that the designer give the greatest care and attention to the adjustment of the various centres to one another, to insure a well-balanced and safe vessel. It is true, the vessel can be so ballasted as to bring the centre of lateral resistance farther forward or aft, but in such a case the skill expended in modeling the vessel is lost, as the water line will not be the one designed. The mast may be moved farther forward or aft; or one of the sails may be reduced in size and another enlarged, but all such alterations are costly, and after being done are only a "botch."

—New Orleans has a new rowing organization, the Mississippi Rowing Club.

NEW YORK, NOV. 2, 1877.

**EDITOR FOREST AND STREAM:**  
We want a good little sloop-yacht, about 25x10 feet and with some depth, say about 3½ feet, at least, and flat bottomed, so that we can go outside in them. We don't want any more of these skimming dishes, with lots of ballast in them and five or six men to manage them, but staunch little boats with a cabin, so that if we get caught in the rain away from home we can "bunk" and not get drenched. Such a boat I intend having built as soon as I can get a model to suit me. I want to make a cruise next summer up the Hudson and Lake Champlain, I wish to have a boat I can handle myself and not get upset every time it breezes. Can't you give me a model in your paper of such a boat in the course of your papers? Yours, etc.,  
LITOMIA.

[We intend to devote a certain amount of space to this exact build of boat.—Ed.]

**YACHTING IN BLUE WATERS.**—Yachting is undeniably looked upon by the mass of the community in the light not only of a slothful and luxurious pastime, but as an actual waste of time; yet it is none the less true that the larger number of those who cruise upon blue water are men of positive character, who, becoming impatient of the humdrum conventionalities of society, prefer to assert their manhood in contention with the elements. And these men, who may have previously been skirmishers on the outposts of science, are not infrequently, by the very nature of their new pursuit, drawn within its charmed circle, and by their observations and experiments become important contributors to it.

The enthusiastic yachtsman can not sail his vessel for ever so short a time without discovering certain peculiarities in her build which he flatters himself he could improve upon, and his active mind at once institutes intelligent inquiries into the laws of force and resistance, examining critically the various theories, principles and formulas held to by the shipbuilder, informing himself as to the varieties of ship timbers—their tenacity, density, etc., until he almost unconsciously finds himself drawn within the labyrinth of marine architectural disputation, and what at first was a diversion, soon becomes an absorbing passion. Having ample leisure and means usually at his command, he dives *con amore* into the most difficult paths of applied mechanics, creates, destroys and recreates, until he finally effects radical and unimprovements in the art. Indeed, it is to this restless spirit that we owe the success of the yacht America, which, after thirty years of vicissitude uncommon to even the sea-going vessel, is probably to-day as staunch and fast as any vessel afloat, for her owner, Mr. Stevens, built three large yachts, the Wave, the Onkazy and the Maria, before he was satisfied that he had discovered the lines which would insure speed and seaworthiness.

No yachtsman who has the energy and pluck to cruise on blue water would be willing to remain an hour longer than necessary a supernumerary aboard of his own yacht, or to give up control of her to his sailing-master. That would be all very well for the smooth-water yachtsman, who finds sufficient excitement in the click of a champagne cork or the admiration of his lady guests; but once on blue water, a man would feel like a prisoner in charge of a jailor if he were not in supreme command. Hence he feels that he must at once tackle what has always seemed to him the intricate science of navigation; but he soon discovers that, so far as its ordinary practice goes aboard ship, it has been reduced to a simply mere rudimentary education may with ease solve its problems. This only incites him. He is not satisfied to work "by rule of thumb." It is all very well for his sailing-master to take his sextant and measure an altitude of sun, moon, or star, or a lunar distance, and define his position by means of tables computed for him, but he must know why such angles and such distances give such results, and is thus led to investigate the foundation of the theorems, and familiarize himself with the movements of the heavenly bodies, and calling to his aid his half-forgotten mathematical training, finds himself engaged in an intensely interesting pursuit.

Meteorology, which is essentially a science kindred to that of navigation, ranks among its students the practical philosophers of our times, and they rely, to a very large extent, upon the notes entered on the "log-book," for data for the confirmation of their theories. The flight of a bird, the floating mass of sea weed, the barnacle-covered log, the



articles, with "London at Midsummer," by Henry James, Jr., and "The Church of St. Sophia," by Hugh Craig, give a foreign tone to the magazine. "The Doings and Gossip-on of Hired Girls," is an amusing study of American rural life, which we commend to the perusal of the thousands of interested parties. Mrs. Davis concludes her story, "A Law Unto Herself," and another one, "For Percival," is begun. "The Flight of a Princess" is a historical sketch by W. A. Boile-Grohan. Will Wallace Farney has a sketch, "A Kentucky Duel," and C. Rosell Winstates a poem, "Soen Dura," from the Swedish. There are other poems and stories. The Monthly Gossip discusses a variety of timely topics, and the Library Reviews close the number.

—The stove dealers ought to fetch out a Creed-moor range for this winter's market.

—"What did you get?" asked a wife of her husband, on his return from a hunting excursion of several days' duration. "I got back!" he sententiously replied.

Tiffany & Co., Silversmiths, Jewelers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. TIFFANY & CO. are also the agents in America for Messrs. PATEK, PHILIPPE & Co., of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones, General Jewelry, Artistic Bronzes and Pottery, Electro-Plate and Sterling Silverware for Household use, fine Stationery and Bric-a-brac, is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York.

*Liquors.*

**Piper Heidsieck**  
AND  
**PIPER "SEC."**



**For Sale Everywhere.**

JOHN OSBORN, SON & CO.,  
43 Beaver street, New York,  
and  
44 St. Sacramento street, Montreal,  
GENERAL AGENTS.

CURTIS & HARVEY and DEPONT GUN-POWDER at MARSTERS,  
125 Nassau street, New York, and 55 Court street, Brooklyn.

*New Advertisements.*

25 FANCY CARDS, snowflake, damask, etc. no. 3 alike with name, 10c. Nassau Card Co. Nassau, New York. Oct 25 131

**English sporting Gunpowder.**

CURTIS & HARVEY'S  
**DIAMOND GRAIN.**  
Nos. 2, 3, 4, 5, 6, 7 and 8. Superior Rifle, Enfield Rifle, and Col. Hawker's Ducking. W. STEPH, 51 Cedar street, N. Y. Agents for the United States.

GAME LAWS—New York, New Jersey, Penna., Delaware and Maryland. Pocket edition. Contains useful information for sportsmen. Sent by mail upon receipt of price—25 cents. E. F. VAN ZANDT, No. 200 Walnut Place, Phila.

BIG BONUSES for all agents. THE SOUTHERN AGENTS' MANUAL, Atlanta, Ga., describes impartially the goods, etc., of all best agents' houses in the United States. Scores of rare offers monthly. Agents choose from hundreds. On trial to agents or those desiring agencies only three months for three cents to pay postage. Nov 1 31

**Sportsmen, Attention!**

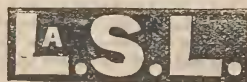
**KEEP YOUR FEET DRY.**



The only genuine WATERPROOF Boots and Shoes. Goods sent to all parts of the U. S., C. O. D. Catalogues contain full instructions for self-measurement sent free on application.

503 Broadway, New York.

REVOLVERS, 7 SHOP, \$2.50 at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.



UNPRECEDENTED ATTRACTIONS.  
OVER HALF A MILLION DISTRIBUTED.

**Louisiana State Lottery Co.**

This institution was regularly incorporated by the Legislature of the State, for Educational and Charitable purposes, in 1868, with a capital of \$1,000,000, to which it has since added a reserve fund of \$350,000. Its Grand Single Number Drawings will take place monthly. *Never sales or postpones.* Look at the following Distribution:

- GRAND PROMENADE CENTER, during which will take place the
- Extraordinary Semi-Annual Drawing, at New Orleans, Tuesday, December 11, under the personal supervision and management of Gen. G. T. BEAUREGARD, of Louisiana, and Gen. JUBAL A. EARLY, of Virginia.
- CAPITAL PRIZE, \$100,000.
- Notice—Tickets are Ten Dollars only. Halves, \$5. Quarters, \$2.50. Eighths, \$1.25

LIST OF PRIZES	
1 CAPITAL PRIZE OF \$100,000.....	\$100,000
1 GRAND PRIZE OF 50,000.....	50,000
1 GRAND PRIZE OF 20,000.....	20,000
2 LARGE PRIZES OF 10,000.....	20,000
4 LARGE PRIZES OF 5,000.....	20,000
20 PRIZES OF 1,000.....	20,000
50 " " 500.....	25,000
100 " " 300.....	30,000
200 " " 100.....	20,000
500 " " 50.....	25,000
1,000 " " 25.....	25,000

APPROXIMATION PRIZES.	
100 Approximation prizes of \$20.....	2,000
100 do do 100.....	10,000
100 do do 75.....	7,500

1,775 Prizes, amounting to \$522,500  
Gen. G. T. BEAUREGARD, (of La) Com.  
Gen. JUBAL A. EARLY, (of Va) Com.  
Rate for Circulars or send orders to  
M. A. DAUPHIN, P. O. Box 632, New Orleans, La  
Or to B. FRANKMOORE & SON  
37 Broadway, New York.  
MONTHLY DRAWING.  
Tuesday, January 8th, 1873.  
Capital Prizes, \$30,000. Tickets, \$2 each. Halves, \$1.

ELEY'S SHELLS, WADDS AND CAPS at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

**Animal Portraiture.**

Gentlemen desirous of having their Horses and Dogs painted will be guaranteed an authentic and perfect likeness. Reference to editor of this paper.

E. SANGUINETTE, P. O. Box 3,000, N. Y. City if

**NEW YORK SHOOTING COAT.**

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

**MADE OF BROWN VELVETEEN.**

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$6.50. Also the best brown ordinary pants at \$10 per pair. I make only the one grade, as the cheapest goods do not turn brains and will not give satisfaction.

Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is the Best Yet. Coat, \$6.50. For full suit, \$14.00. I also make the sleeveless Coat; Vest with sleeves if desired. Rules for measurement and samples sent upon application.

**F. L. Sheldon,**

For Sale in New York by RAILWAY, N. J.

**H. C. SQUIRES, 1 Cortlandt St., N. Y.,**

**THE UNITED STATES CARTRIDGE COMPANY,**

LOWELL, MASS.

Manufacturers of the

CENTRAL FIRE, SOLID HEAD,

BRASS SHELL, RE-LOADING CARTRIDGE,

Used by the Army and Navy of the United States and several Foreign Governments.

All kinds of RIFLE FIRE AMMUNITION.

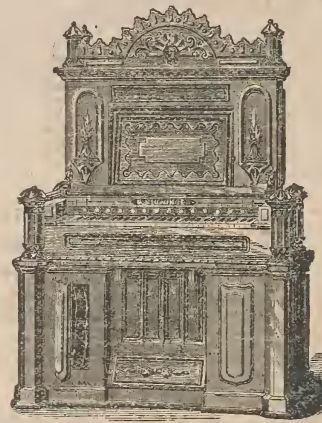
Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

**WALLACE & SONS, Agents, N. Y. City.**

**SHONINGER ORGANS.**

*Fishing Tackle.*



PRONOUNCED UNANIMOUSLY AS THE

**Best Instruments.**

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:

"The B. SHONINGER ORGAN CO.'S exhibit as the best instruments at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, is liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either 'rattle, swell or split.' THE ONLY ORGANS AWARDED THIS RANK.

This Medal and Award was granted after the most severe competition of the best makers, before one of the most competent jurists ever assembled. New styles and prices just issued, which are in accordance with our rule, the BEST ORGANS to the least money.

We are prepared to appoint a few new Agents. Illustrated Catalogues mailed, postpaid, upon application to

**B. SHONINGER ORGAN CO.,**  
97 to 123 Chestnut Street,  
NEW HAVEN, CONN

SHELLS LOADED FOR PARTRIDGE QUAIL, WOODCOCK and SNIP \$4 per hundred; at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

*Sportsmen's Routes.*

**A BUFFALO HUNT**

—ON THE—

Atchison, Topeka and Santa Fe Railway.

THE NEW ROUTE FOR

**KANSAS & COLORADO**

SPECIAL ATTENTION TO

**SPORTSMEN.**

For maps, tickets, and gen'l information, apply to L. H. NUTTING, Gen'l Eastern Agent, 234 Broadway, New York.  
T. J. ANDERSON, Gen'l Pass. Agent, Topeka  
W. F. WHITE, Gen'l Ticket Agent, Kansas

BOYS' SINGLE-BARREL SHOT-GUNS, \$2.50 at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

**B. GREENWOOD,**

Manufacturer of Aquarium Greenhouses and Aquarium Cement, and dealer in Fish Food, Gold Fish, Water Plants, Fish Globes, and aquaria stock of all descriptions. Canaries, Cages, Rustic Baskets, Bird Houses, Sea Shells, etc., wholesale and retail.

Nos. 11 1/2 to 13 COLLEGE PLACE,  
Near Murray St. New York, N. Y.

**H. L. LEONARD,**

BANGOR, MAINE,

Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

**Split Bamboo Rods a Specialty**

Great reduction in prices. Trout Rods, full mounted, \$30, formerly \$50; other rods in proportion.

Every rod bearing my name is six strands from butt to extreme tip, and mounted with my patent waterproof ferrule, and warranted against imperfections in material and workmanship. Any style of finish—hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancewood. MADE TO ORDER.

I was awarded a Medal and DIPLOMA at the Centennial for my Split Bamboo Rods. Also manufacturer of Patent Reels for Salmon and Trout fishing. The lightest, strongest, and handiest Reels ever made. Full line of FISHING TACKLE always on hand.

Send for circular and price list.

**DINGEE SCRIBNER,**

Manufacturer of

salmon and Trout Rods, Salmon and Trout Flies Casting Lines, Landing Nets, Gaffs, etc.

Best Greenheart Rods at \$9, \$11 and \$13 each.  
Waterloo Street, St. Johns, N. B.  
1712 6m

**The Ludlow Trout Co.**

Will this year take from one to two million brook trout eggs (ready for shipment from Nov. 10 to Dec. 20) at lowest prices. Send for price list. Address

B. FREEBURG, SUPERINTENDENT,  
Aug 23 3m Ludlow, McKean County, Pa.

COMPETITION IS THE LIFE OF TRADE.

**J. B. CROOK & CO.,**

**FISHING TACKLE.**

50 FULTON STREET, NEW YORK  
Makes the Immense Reduction.

Greenheart Rods for Trout and Bass Fishing, \$15 to \$30. Ash and Lancewood Rods for Trout and Bass Fishing, \$7 to \$12.  
Everything else in proportion. Goods sent C. O. D. to all parts of the United States and Canada.

**Lessons in Fly Tying.**

I will guarantee to teach any gentleman the art of dressing flies in a few lessons. Address

JOHN HAILY, 320 Henry Street, New York City.

Files tied to order from any pattern. Nov 11

BREECH-LOADING IMPLEMENTS, at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

# NICHOLS & LEFEVER, MAKERS OF FINE GUNS.

CATALOGUES SENT ON APPLICATION.

## SYRACUSE, N. Y.

### The Kennel.

**FOR YOUNG COCKER SPANIEL STOCK FROM the choicest breeds.** Enquire of M. P. MCKOON, Franklin, Del. Co., N. Y.

**FOR SALE**—Fox hounds, No. 1 stock; very fast and strong scented; some one year old and some pups. L. M. WOODEN, Rochester, N. Y.

### BALLARD'S FLEA KILLER!

**FOR THE DESTRUCTION OF FLEAS On Dogs and Other Animals.**

An Absolute and Perfect Extremator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.

**NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.**

**Price 50 Cents per Package.**

Will be sent postage paid on receipt of price. Proprietors, LAZELL, MARSH & GARDINER, 10 GOLD STREET, NEW YORK.

### SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped.

F. O. de LUZE, 13 South William Street, N. Y., Sole Agent. For sale in cases of 112 lbs. Special terms to dealers.

### CHAMPION LARK IN THE STUD

Orange and white, by Brooks' Phil, out of Raymond's Dido. Perfect specimen of English setter. First prize in N. Y. Bench Show for English setters in largest class ever shown in the country, beating Motford's Bruce and Nip and Tuck, who beat both Paris and Leicester. For terms apply to E. S. WANMACHER, Hohokus, N. J.

### Fleas! Fleas! Worms! Worms! STEADMAN'S FLEA POWDER FOR DOGS.

**A Bane to Fleas—A Boon to Dogs.** This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.

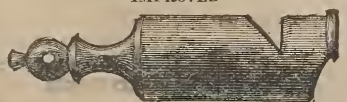
**Price 50 cents by mail, Postpaid**

### AREA NUT FOR WORMS IN DOGS. A CERTAIN REMEDY.

Put up in boxes containing a dozen powders, with full directions for use. **Price 50 cents per Box by mail.** Both the above are recommended by HOB AND STEAM.

W. HOLBERTON, 102 NASSAU STREET.

### MARSTERS' IMPROVED



### Horn Dog Whistle. Cannot be Lost from the Coat. ALWAYS IN THE SAME PLACE WHEN WANTED.

Sample by mail, 50 cents. Trade supplied. J. F. MARSTERS, 125 NASSAU ST., N. Y., AND 55 COURT STREET, BROOKLYN.

### The Kennel.

**HORTICULTURAL HALL, PHILADELPHIA. Grand National Dog Show,**

Given under the patronage of many prominent gentlemen of Philadelphia. This grand exhibition commences on

**MONDAY, NOVEMBER 26, 1877,**

**AND CONTINUES FIVE DAYS.**

OVER \$1,300 IN SOLID SILVER WARE, of beautiful and appropriate designs, will be given as prizes to every kind of breed of dogs. In addition to the regular prizes a large number of

**VALUABLE SPECIAL PRIZES** have already been offered by leading merchants of Philadelphia.

For particulars, address THATCHER GODDARD, Manager, Horticultural Hall, Broad street.

**EDINA KENNEL.**

JESSE SHERWOOD, PROPRIETOR, Edina, Knox County, Mo., breeder and importer of Sporting Dogs, Pointers, setters, spaniels, fox and beagle hounds, "Sancho" Imp. Pointer, stud dog; fee, \$35. See English K. C. S. B., No. 1,005. He is a grandson of the celebrated "Hamlet," No. 536. This dog "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874; three here.

**FOR SALE**, when eight weeks old, six puppies out of my blue belton setter Mell, by Bob Boy. They are black and white. Two of them are black, white and tan, and are almost perfect imitations of their sire. For particulars, address L. P. WHITMAN, 5 City Hall, Detroit, Mich.

### DOGS.

**DOCTOR HENRY GARDNER, No. 146, West 11th street, New York City.** Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ad 2if

**FOR SALE**—First class retriever on land and water. Splendid ducking dog. Sold for want of use. Address, JAMES COOK, Rouse's Point, N. Y.

**FOR SALE**—FULL-BLOODED IRISH SETTER pups, over three months old; sire Don, imported from Ireland, December, 1873, by C. H. Turner, Sec. National Kennel; dam, Countess, by Rodman's Dash. Two Gordon setter bitches, four months old, out of the best dog and bitch in this country to the field. One Gordon bitch, 18 months old; price \$85. Full pedigree given with dogs. H. B. VONDER-SMITH, Lancaster, Pa.

**FOR Irish and otter setters, dogs and bitches** of all ages, broken and unbroken, address E. J. ROBBINS, Wethersfield, Conn.

**EXTRA fine red Irish setter pups for sale**—four dogs and two bit hes, out of my bitch Flint, by Wadsworth's Scout, he by imported Plunker, out of Dr. Goldsmith's Carrie. Filr is dark red and a superior field performer. For full particulars and price, address C. L. PALMER, Port Henry, N. Y.

**W. FINCK, 150 Essex street (near Stanton), New York,** has again received and has for sale the finest and best St. Bernard, genuine, full-blooded dogs. They are the most powerful in this country; one only six weeks old. Will be sold cheap.

**FOR SALE**—Splendid black spaniel; three months old and black as a coal. From fine stock. Price \$16. Address JAMES COOK, Rouse's Point, N. Y.

**FOR SALE**—Blue-blooded native setter dog Ned Forrest, out of McGillev's imp. Fannie, by Condit's Mack; four years old, liver and white; large and fine looking; broken on woodcock, quail and partridge; beautiful retriever from land water; mild and staunch. Price \$50 (no exchange); sold for no fault; no further use for him; fine bargain. Address FOREST, Box 4-3, Peckskill, N. Y.

**FOR SALE**—Irish setter dog, three years old. Color, orange and white; perfectly broken. For further particulars address GUNNER, P. O. Box 9, Brockton, Mass.

**WANTED**—A first-class partridge dog, must be under five years of age; English stock preferred; must show dog in field. Address J. L. WOODBRIDGE, Box 208, North Manchester, Conn.

**FOR SALE**—One pair valuable setters for sale. For particulars, address, H. L. GRAVES, Sunderland, Vt.

**FOR SALE**—Genetoe Fug Pups, three months old. Address H. P. INGALLS, Superintendent Zoological Garden, Cincinnati, O.

**THOROUGHbred for sale**—Red Irish setter, Gett, three years old, thoroughly broken to field work. Bred by Mark, who was imported in 1859 from Lord Lurgan's kennel, Ireland, the owner of Master McGrath. His mother is Queen, out of imported bitch Nell, by imported dog. Training and stock guaranteed. Address, JAS. F. DUNCAN, Messrs. Lacey & Danbnd 110 Grand St., New York.

### Hotels and Resorts for Sportsmen.

**Metropolitan Hotel,** WASHINGTON, D. C.

**Carrollton Hotel,** BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.

### Duck Shooting.

**SHINNEOCK BAY—THE BEST SHOOTING GROUNDS NEAR NEW YORK CITY.**

The Bay View House is the largest and best located house on the bay, being central close by the water, and commanding a view of the shooting grounds. Experienced guides, with boats, batteaux, decoys, etc. In attendance. A large amount of duck fed in the bay, and more ducks this season than for years before. Address O. WILCOX, Good Ground P. O., Loog Island.

### HALSEY HOUSE,

ATLANTICVILLE, LONG ISLAND, is near New York City than any house bordering on SHINNEOCK BAY. Is as near, and has as good shooting grounds, and as experienced attendants (with live geese and other decoys, batteries, etc., always on hand), nearer the station; the largest and the best kept house in the bay. L. I. RR. to Atlanticville station. Fare, \$2. Stage meets all trains. W. F. HALSEY, Owner and Proprietor. Atlanticville, L. I., Oct. 20, 1877.

**TO SPORTSMEN**—Wm. Squires, Blue Point, begs to inform sporting gentlemen that he has good accommodation. Quail are plentiful, the young bay birds are now coming in, and everything bids fair for an excellent season. Address W. SQUIRES, Blue Point, Southside, L. I.

### Wild Fowl Shooting.

**SPRINGVILLE HOUSE OR SPORTSMEN'S RETREAT, SHINNEOCK BAY, L. I.**

By a practical gunner and an old bayman. Has always on hand the best of boats, batteries, etc., with the largest rig of trained wild-geese decoys on the coast. Special attention given by himself to hunters, and satisfaction guaranteed. Address WM. N. LANE, Good Ground, L. I.

**SPORTSMEN** accommodated with board and outfit for gunning at residence of B. F. Squires, on shore of SHINNEOCK BAY, midway between Quoquo and Lighthouse. Most of the battery shooting in bay. Ramparts and fine-neck points, with one mile and in plain view of bay. Two flocks of decoy wild geese at command. Pheasant, quail, rabbits near. Sport good in fall and spring. Terms moderate. B. F. SQUIRES, Atlanticville, L. I.

**SHOT-GUNS AND RIFLES LOANED AT MARSTERS', 125 Nassau street, New York, and 65 Court street, Brooklyn.**

### Wanted.

**WANTED**—Inventions secured for \$3 (better than caveat). Send REDMOND, Rochester, N. Y., 81 and see.

**WANTED**—Everybody to subscribe to the Southern Poultry Journal, a handsomely illustrated monthly magazine, devoted to Poultry, Pet Stock and general sporting matters. Only \$2 per year, post-paid. Sample copies 20 cents. Correspondence solicited for the various departments of the Journal, on all subjects of interest relating thereto. Secretaries of gun and sporting clubs are requested to favor us with notes of their movements, etc. Address E. B. HARTWELL, Publisher, P. O. Box 60, Louisville, Ky.

**WANTED**—A cocker, or other spaniel; that will bark freely on striking trail of bird, follow up and remain by the bird, barking all the time. Address A. G. Jr., Kingston, Pa.

**WANTED**—The advertiser would buy at moderate price one or two red Irish pup-p of undoubted pedigree; about a year old. Address F., this office.

**WANTED**—Live moose and deer to stock a park. Address, stating terms and full particulars, S. Box 7, Station D, New York.

### For Sale.

**SECOND HAND AT RITZMANN'S.** A. W. & C. Scott & Son 81-ore; Remington 12-bore breech-loaders; also several very fine muzzle-loaders at lowest figures. Call and examine at C. L. HIZMANN'S, 64 Broadway.

### For Sale.

**SECOND-HAND**—A very fine Tolley breech loader, with two sets of barrels fitted to same stock; one pair 10 bore Danabuss and very close shooting, other pair 16-caliber steel and cylinder bore; weight, 9 lbs. and 3/4 lbs. This gun was made to order for the owner, and is very superior in every respect. Call and examine at gun store of HENR. C. SQUIRES, 1 Cortland street, N. Y.

### Brook Trout Eggs For Sale.

The Proprietors of Trout-ive Fish Ponds are taking great care to breed from their largest and best two and three year old trout. Every package of eggs guaranteed perfect. Fry yearlings and older trout in their season. Send for price list to J. B. EDDY, Randolph, Calt. Co., N. Y.

**CARTRIDGE BAGS, 1/2 PR; GAME BAGS, 1/4 PR; POWDER FLASKS, 50; SHOT LOUCHES, 15c; 21 MAJESTICS, 3/4; 25 SHOT SURET, New York, and 55 Court street, Brooklyn.**

**BLOOMING-GROVE PARK ASSOCIATION.** One share in above association for sale at a very low price. The best Game Preserves in America. Trout, Back Bass and Pickered fishing Address SPORT, this office.

**CITY AND COUNTRY PROPERTY** bought, sold and exchanged. C. S. PECK, 5 West Twenty-fifth street, New York.

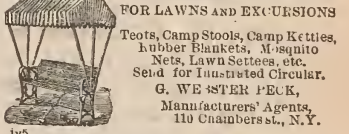
**FOR SALE**—One pair English Fallov Deer three months old. Address H. P. INGALLS, Superintendent Zoologica Garden, Cincinnati, O.

**FOR SALE**—A Gentleman's Shooting Box complete (located within 125 miles of New York), comprising 42 acres of land, a new h. use fully furnished, barn, wagon house, farmer's house, etc. Also, 1000 acres of land, including a beautiful lake, about five in back, bass, perch, e. C. Ruffed r. see, woodcock and deer immediately around the grounds. Horse, wood, hunting—gun, buckboard, fine harness (double and single), farm tools, boats, etc. Also two fine setter dogs and two dr. dia s. cocker spaniels; thoroughly broken. All for sale for \$500 cash, as the owner is going West permanently. Address COLONEL FOREST AND STREAM office, New York.

**25 Fashionable Cards**, no 2 alike, with name logo-t paid. Geo. I. REED & CO., Nassau, N. Y.

### Sportsmen's Goods.

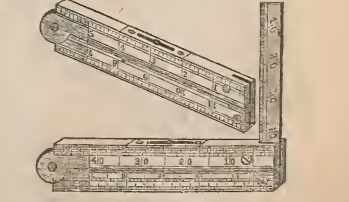
### HAMMOCKS



**FOR LAWNS AND EXCURSIONS** Teets, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seesaws, etc. Send for Illustrated Circular. G. W. HASTER PECK, Manufacturers' Agents, 110 Chamberst., N. Y.

### THE ECLIPSE LOADER.

Lords sixteen shells at once. Occupies a space ten inches long, six high and seven wide. The rapidity with which this loader works, the saving of labor, its simplicity and easiness, must commend it to every owner of a breech-loader. PRICE \$1, with liberal discount to the trade. Send for circular. Address TODD, SCHENCK & CO., 84 West Lombard Street, Baltimore, Md.



**It is a Square, Plumb and** **Inclinometer.** It may be used for leveling staves for rest shooting, and gives at once the degree of elevation and pitch to the foot. As a specimen of workmanship, it is faultless, and is strong and durable. So great is our confidence in its merits that we hereby agree to refund its cost in every case where perfect satisfaction is not given. Send by mail on receipt of \$1.50 STEPHENS & CO., Riverport, Conn.

### Ronan's Metal Shell Cleaner.

Cleans fifty shells in ten minutes. No water used. Knives elastic, self-adjusting, prevent the slipping of wads. Is unequalled as a breech wiper by covering with an oil cloth. For sale by all gun dealers, or sent free by mail on receipt of price, \$1.50 10 and 12 bore. J. F. RONAN, 788 Shawmut Avenue Boston, Mass. (Liberal discount to the trade)

Publications.

FRANK SCHLEY'S AMERICAN



Partridge & Pheasant Shooting. Describing the Haunts, Habits, and Methods of Hunting and Shooting the American Partridge—Quail; Ring-necked and Woodcock, with directions for loading the gun, hunting the dog, and shooting on the wing. Price, \$2. Liberal discount to the trade.

Frank Schley, Frederick City, Md.

KNOW THYSELF. A new Medical treatise, 'The Science of Life, or Self-Preservation, a book for everybody. Price \$1, sent by mail. Fifty original prescriptions, either one of which is worth ten times the price of the book. Gold medal awarded the author. The Boston Herald says: 'The Science of Life is beyond all comparison the most extraordinary work on Physiology ever published.' An Illustrated Pamphlet sent FREE. Address DR. W. H. PARKER, No. 1 Bntfinch Street, Boston, Mass. Oct4 94

HEAL THYSELF

TAKE A LOOK AT THE Sportsman's Gazetteer AND GENERAL GUIDE,

By CHARLES HALLOCK, Editor 'Forest and Stream and Rod and Gun.'

896 pp., Price \$3. Tinted Paper, \$4; half-bound mo., \$5.

A complete Dictionary for Sportsmen. Everybody wants it that has a dog, gun or fishing rod. A complete description of all kinds of Game, Fish, etc. Field Sports, Woodcraft, Angling, Fly Tying, Dogs, Dog Breeding, Diseases and Treatment, Boat-riding and Boat-building.

Several thousand localities where game and fish are to be found.

Nothing of the kind ever before published worth ten times the price.

PUBLISHED BY FOREST & STREAM PUBLISHING CO. 111 Fulton street, New York.

Guns, Rifles, Etc.

W. W. Greener's CHOKE-BORE GUNS, Tried on Game in America. Supplied by H. C. Squires, 1 Cortlandt St., NEW YORK.

See the Following Testimonials:

See the Following Testimonials: SIR—It is a pleasure for me to inform you of my high appreciation of the 10-lb. Greener breech-loader purchased of you last winter. I consider choke-boring, if skillfully done, as the greatest improvement in fowling-pieces since the introduction of the percussion cap. It gives the maker complete control of the pattern, and greatly increases penetration. To prove this, I will give you the performances of this gun. The 32-inch 7-gauge barrel, charged with 4 1/2 drachms of powder and 1 3/4 oz. No. 6 Eng. with 4 1/2 drachms of powder and 1 3/4 oz. No. 6 American shot charged in 30-inch circle at 40 yards. The same charge of powder and 1 3/4 oz. No. 4 American shot gives 100 to 175 birds like a stroke of lightning. It does at 50 to 70 yards like a stroke of lightning. It is a characteristic of the choke-bore to show its greatest superiority in the large sized shot. On trial of the same performance surprised me. On trial of the 3 1/2 inch modified choke-bore barrels, with 12 gauge 23-inch modified choke-bore barrels at 40 yards as with the full choke 10-gauge barrels at 40 yards, with tremendous penetration. This is just the performance required of a gun for thick cover, and which you generally find ruffed grouse, woodcock and quail, these birds being killed, with few exceptions, at from 15 to 25 yards.

COL. JOHN BODINE.

DEAR SIR—The guns arrived all right. I think these last guns you have sent us will place the Greener guns ahead of any other in this country, as Greener guns ahead of any other in this country, as Greener guns ahead of any other in this country, as Greener guns ahead of any other in this country. We unhesitatingly recommend the Greener as far superior to any gun of foreign or domestic manufacture that we have seen. We say this after seeing and using some of the all the most celebrated makers.

CARLISLE JONES & CO. SELMA, Ala. The Greener gun presented by Mr. Squires for the best pointer, and awarded to me, is a close, clean, hard hitter, killing its game at very long distances. It is the second Greener that I have owned and they cannot be beaten. S. B. DILLRY. LAKE CITY, Minn.

SIR—I have a pair of W. W. Greener's breech-loaders bought of H. C. Squires, of New York, modified choke-bore. I have had an opportunity to test these weapons on birds heavily feathered, and test these weapons on birds heavily feathered, and test these weapons on birds heavily feathered, and test these weapons on birds heavily feathered.

W. W. GREENER, St. Mary's Works, Birmingham, England.

Warren Powder Mills, MANUFACTURERS OF BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

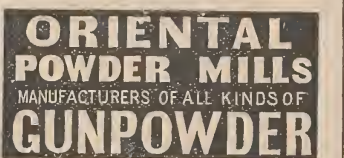
SPORTING BRANDS—Ereka, Continental, "Border Rifle," Snap-Shot, and Warren Sporting Cannon and Musket, U. S. Standard. The above can be had of the dealers, or at wholesale at the office, 27 Doane street, Boston, Mass., and of the agents, JOHN P. LOWELL & SONS, corner of Washington, Cornhill and BATTLE street, Boston, Mass. 1919

HAZARD POWDER CO. MANUFACTURERS OF GUNPOWDER.

Hazard's "Electric Powder." Nos. 1 (fine) to 6 (coarse). Unsurpassed in point of strength and cleanliness. Packed in square canisters of 1 lb. only. Hazard's "American Sporting." Nos. 1 (fine) to 3 (coarse). In 1 lb. canisters and 6 1/2 lb. kegs. A fine grain, quick and clean, for upland prairie shooting. Well adapted to shot-guns. Hazard's "Duck Shooting." Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzle or breech-loaders. Hazard's "Kentucky Rifle." FFG, FFG, and "Sea Shooting" FG, in kegs of 25, 12 1/2 and 6 1/2 lbs, and cans of 5 lbs. FFG is also packed in 1 and 5 lb. canisters. Burns strong and moist. The FFG and FFG are favorite brands for ordinary sporting, and the "Sea Shooting" FG is the standard Rifle powder of the country. Superior Mining and Blasting Powder. GOVERNMENT CANNON & MUSKET POWDER. ALSO, SPECIAL GRADES FOR EXPORT, OF ANY REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER. The above can be had of dealers, or of the Company's Agents in every prominent city, or wholesale at our office, 83 WALL STREET, NEW YORK.

THE NEW Dittmar Powder.

THE CHAMPION POWDER OF THE WORLD For all off-hand shooting at short and long ranges. Unsurpassed for Cleanliness. Pleasant to shoot on account of little recoil and report. Desirable for hunting on account of little or no smoke. Un- equalled for rapid firing, as it does not foul and heat up the barrel as black powder. Great accuracy, penetration and good pattern. Safer than black powder. Address CARL DITTMAR, NEPONSET, MASS.



Once—13 BROAD STREET, BOSTON.

BRANDS—DIAMOND GRAIN. FALCON DUCKING. WILD FOWL SHOOTING. WESTERN SPORTING. (Oriental Rifle).

The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES. J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. Cobb & Wheeler, Agents, 2 State St., Chicago, Ill. C. J. Chapin, Agent, 215 Locust St., St. Louis, Mo. Agencies in the principal cities in the United States.

GUNPOWDER DEAD SHOT, NE PLUS ULTRA, TELEGRAPH, DUCK SHOOTING.

The above celebrated Brands are manufactured by the

AMERICAN POWDER CO., 233 State Street, Boston.

GENERAL WESTERN AGENTS: E. B. RAMBO, Chicago, Ill. F. G. GODDARD, St. Louis, Mo. M. BARR & Co., Cincinnati, O. Oct4 19

N.Y. Newspaper Mailing Agency With the latest improved Newspaper Folding and Mailing Machines, No. 13 Spruce street. JAMES BRADY, Manager and Proprietor.

Sportsmen's Goods. BOSTON

SHOOTING SUIT.

Manufactured only by G. W. SIMMONS & SON, BOSTON.

Each article—coat, trousers, vest and hat—have the name and manufacturer's address stamped upon it, and no suit is genuine without it bears this imprint.

The suit can be sent, securely packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit.

We make no discount except to the trade. We make but one quality, and that is the very best. The price of the suit complete is \$13.

The suit consists of coat, trousers, vest, and choice of either cap with havelock, or hat.

The material is of the best quality of duck, waterproofed by a patent process. The color is that known as "dead grass shade."

The seams and pocket corners are riveted, and nothing is neglected to make the whole suit complete in every way.

OUR PATENT DECOYS

have entirely superseded the old-fashioned cumbersome, wooden decoys. The birds are hollow, and six of them occupy about the space of one wooden decoy. The Duck Decoys of all kinds are \$12 per dozen; geese, \$3 each; yellow leg, \$4.25 per dozen; black breast plover, \$3.75 per dozen; red breast plover, \$3.75 per dozen; golden plover, \$3.75 per dozen; turnstone, chicken plover, etc., \$3.75 per dozen; sandpipers, \$3.50 per dozen. We are now making standing geese for field shooting.

THE HUNTER'S TENT

is made of tan-colored duck; light, easily transported. Size, 7 ft. by 8 ft. Price, \$10 complete, made on the umbrella principle, folding into a neat roll 3 feet long.

In the judges' report at Philadelphia they were commended for excellence in every part. Very novel and practicable; adapted to all out-of-door purposes where lawn, beach, hunters and camp tents are used; quick folding; all sides strongly fortified; enables them to stand against wind and rain. Rev. F. B. Savage, of Albany, N. Y., who camps out in Florida in winter, and the Adirondacks in summer, writes this about the tents:

ALBANY, July 31, 1877. SIRS—I have just returned from a three-weeks' camping expedition in the Adirondacks, and have had the three tents bought of you put to the severest tests of exposure both as to wind and storm, and I do most unhesitatingly say they are the most complete thing of the kind I ever used. 1st. They are easily put up or taken down. 2d. They are perfectly waterproof. 3d. They are a good height, and all the room I available. Our party asked for no better. They were admired by all who saw them, and one party insisted on buying one of ours that was to spare. Rev. Dr. Duryan, of Brooklyn, and the Rev. Dr. Irwin, of Troy, both indorse what I say about your tent. With kind regards, yours truly, F. B. SAVAGE.

Tan-Colored Leather Pliable Waterproof Suits.

In Shooting Coats, Jackets, Breeches, Vests and Hats at following prices: Coats, \$22; Breeches, \$15; Jackets, \$15; Vests, \$12. These form the most elegant shooting equipment known. They are indestructible.

A recent notice in the FOREST AND STREAM from a correspondent, says:

Whenever a sportsman, or even one who does not claim the distinction, finds a really good and useful article, it is no more than fair that he should let others have the benefit of his knowledge. For this reason we would call attention to the Tan-colored Leather Shooting or Fishing Suits, made by G. W. SIMMONS & SON, of Boston, Mass., the manufacturers of the famous "Boston Shooting Suit."

I saw these goods advertised in your paper, and wrote to the parties for samples. I found the material as soft and pliable as a piece of kid. I tested it by soaking in water twelve hours, and found it as nearly waterproof as one could desire, and after drying was happily surprised to find it had not stiffened in the least. I have since then received a full suit—coat, vest and breeches—ordered by letter from measure taken by myself.

The goods are splendidly made, well lined with flannel; in fact I do not see how they can be improved.

My friends are unanimous in their verdict that G. W. Simmons & Son's leather goods cannot be excelled in quality or beaten in price.

For every kind of sportsmen's goods address G. W. SIMMONS & SON, Oak Hall, Boston, Mass.

Sportsmen's Goods.



JEWELERS AND SILVERSMITHS, HARTFORD, CONNECTICUT, DEALERS IN DIAMONDS, SILVERWARE, WATCHES, JEWELRY, ETC. IMPORTERS OF FRENCH, GERMAN, AND ENGLISH FANCY GOODS.

SPECIAL ATTENTION GIVEN TO THE MANUFACTURE OF APPROPRIATE DESIGNS FOR Shooting, Boating, Racing, and other Prizes.

ILLUSTRATED CATALOGUE, Three Dozen Wood Cuts of the above and other articles in our line, and including the GAME LAWS OF CONNECTICUT. Mailed to any Address, on receipt of 50 CENTS.

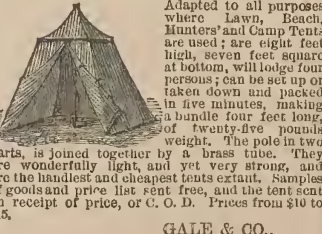
RUSHTON'S HUNTING & PLEASURE BOATS AND CANOES.

The LIGHTEST sporting boat in the world. Weight, 25 pounds and upward. The smallest size will carry two persons. Clear sliding, oak keel, etc. (do not fold up). CANOES, open or decked, weight 35 pounds to 60 lbs. Send stamp for new Illustrated Circular. J. H. RUSHTON, Manufacturer, Canton, St. Lawrence County, N. Y.

DUDLEY'S Pat. Pocket Cartridge Loader.

EXTRACTS, DECAPS, RECAPS, LOADS CREASES AND TURNS OVER CARTRIDGE SHELLS. Equal to the most expensive machines. Is adapted to both paper and metal shells. Weights but four ounces, and is as handy as a pocket knife. In short, is just what sportsmen have been looking for. Samples sent, postpaid, to any address on receipt of price, and if not satisfactory the money will be promptly refunded. Nickel-plated, \$2; polished, \$1.75; japanned, \$1.50 liberal discount to the trade; 10 and 12-gauge now ready. Poughkeepsie, N. Y. Oct 18 19

Gale's Patent Tents.



Adapted to all purposes where Lawn, Beach, Hunters' and Camp Tents are used; are eight feet high seven feet square at bottom, will lodge four persons; can be set up or taken down and packed in five minutes, making a bundle four feet long of twenty-five pounds weight. The pole in two parts, is joined together by a brass tube. They are wonderfully light, and yet very strong, and are the handiest and cheapest tents extant. Samples of goods and price list sent free, and the tent sent on receipt of price, or G. O. D. Prices from \$10 to \$15.

Gale & Co., Boston, Mass.

A New Wad.

The "Fibre" wad will give a better penetration and pattern than Eley's wadding. It is elastic and plastic, and will hold the load securely in brass shells. Will not take fire or blow to pieces. Price per box of 25, 25 cents for No. 10 and No. 12, 30 cents for No. 8. Sample sent by mail on receipt of price.

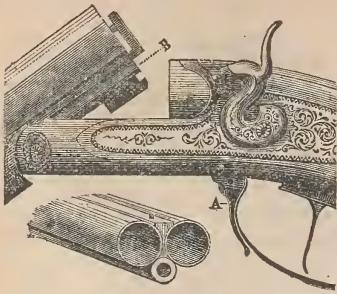
LIBERAL DISCOUNT TO THE TRADE. DELAWARE CARTRIDGE COMPANY WILMINGTON, DEL.

IMPROVED Gaiter Pantaloons, And first-class Sporting Outfits. Sent for circular.

GEO. C. HENNING, WASHINGTON CITY. C. C. & B. ZETTLER, GUNSMITHS AND RIFLE GALLERY, 207 Bowery, New York.



Guns, Rifles, Etc.



THREE BARRELED Breech-Loading Guns. (TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

PRICES.

- Three barrel, \$75 to \$250. Double barrel shot guns. Damascus barrel, \$50 to \$200. Twist barrel, \$35.

SEND FOR NEW CIRCULAR.

W. H. BAKER & CO., Syracuse, N. Y.

Sportsman's Depot.

(ESTABLISHED 1836.)

First premium at World's Fair at New York and Centennial Exhibition.



JOHN KRIDER,

N. E. Cor. Second and Walnut Sts., Phila.

GUNS, RIFLES, PISTOLS, Fishing Tackle, Rods, Reels, Lines, Hooks, Flies, Leaders, Snoods, Artificial Bait, Fly Books, Etc., Etc.

Salmon, Bass and Trout Flies Made to Order. Also "Krider's" Celebrated Center Enamel Split and Glued Bamboo Rods.

Birds' Eggs and Birds' Skins in Great Varieties—Taxidermy in all its branches. Spratt's Patent Dog Biscuits.

Repairing of all kinds. mar-17

E. THOMAS, JR., GUNS, PISTOLS, SPORTING GOODS, 174 South Clark Street, Chicago, Ill.



THE NEW AMERICAN Breech-Loading Shot Gun

For close hard shooting excels all others. Price \$17. Send for circular. Duck guns, extra heavy, a specialty. HYDE, SHATTUCK & CO., Mrs. Hatfield, Mass. Sept 6m.

COMPLETE OUTFITS FOR CAMPING, SHOOTING, AND FISHING.

Fine fishing and shooting tackle, camp stoves, leather, rubber and canvas goods and suits for sportsmen. Tents, portable boats, moccasins, etc.

AGENTS FOR THE FOX GUNS. The best and strongest American guns yet made. Sole agent for the celebrated McBride flies, Holberton's fly rods, black bass and trout flies, and full length fly hooks; Purly's glass ball traps and bull-eye balls, etc. Sent ten cents for illustrated catalogue, with rules for glass ball shooting, and hints on camping, shooting and fly-fishing for trout and black bass.

W. HOLBERTON, P. O. Box 5,109. 102 Nassau street, N. Y. Aug 23 11.

Amusements, Etc.

Zoological Garden.

FAIRMOUNT PARK, PHILADELPHIA. Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 6 17

THE GREAT NEW YORK AQUARIUM, Broadway and 35th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 bow fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Labin in submerging performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments. Coney Island Aquarium now open for the summer.

WHAT PRAIRIE OIL IS BEING USED FOR.

MR. KENWARD PHILP, late Dramatic Editor Brooklyn Eagle, Brooklyn, N. Y., was unable to walk without the aid of crutches, owing to a severe attack of Rheumatism. After the third application of PRAIRIE OIL the crutches were thrown aside, he having no further use for them.

Says the Proprietor of Niblo's Garden, New York: "PRAIRIE OIL gave me relief from inflammatory rheumatism after first application; and after the third I had no further use for my cane."

PRIOR ROBBE, Esq., ex-Building Inspector, DeKalb avenue and Forr Greene Place, Brooklyn, says: "For acute or inflammatory rheumatism it is a wonderful remedy; has been in use in my family for over a year."

M. C. EDEY, Esq., the well-known chemist, 319 Court street, Brooklyn, manufacturer of Edey's Carbolic Troches, etc., says: "I find PRAIRIE OIL to be a most wonderful preparation in cases of rheumatism, having seen it tested in a case of years' standing. The patient obtained relief at once, and was ultimately cured."

MR. JOHN H. SNEDEKER, of Telfair & Suediker, oil merchants, 105 John street, New York, was cured of Pleurisy by the use of PRAIRIE OIL.

MR. G. PADDON, tobacco merchant, 992 Fulton street, Brooklyn, lost the use of his right leg by Sciatica, got relief at once after first application of PRAIRIE OIL. This gentleman had become so depressed by his affliction that he had given up all hopes of recovery.

CAPT. JOSEPH LA FIURA, Merchant Court, near Remsen street, Brooklyn, was cured of a stiff joint, of years standing, after a few applications of PRAIRIE OIL.

MR. BERTSON, publisher, 16 Beekman street, New York, says: "I find PRAIRIE OIL to be infallible in many serious complaints."

PRICE FIFTY CENTS AND ONE DOLLAR PER BOTTLE. Ask your Druggist for it. P. O. Box 2997. "THE PRAIRIE OIL Co.," 132 Nassau St., N. Y. Sent prepaid by express on receipt of ten cents additional. SEND FOR CIRCULAR.

DON'T PASS THIS BY.

STODDARD'S CARTRIDGE-LOADING IMPLEMENT, COMBINING ALL OTHER TOOLS AND FOR ALL SHELLS.

Length, 4 1/2 inches; weight, 10 ounces, and nickel-plated. Price, \$6.

Recommended by FOREST AND STREAM AND ROD AND GUN, Boone, Recapper, Will Wildwood, Ira A. Payne, and others. Liberal discount to the trade. Send postal order to

C. J. STODDARD & CO., Lock box 192, Washington, D. C.

TO SPORTSMEN IN GENERAL!

Headquarters Bohemian Glass Works, 214 PEARL STREET, NEW YORK.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the service of that well-known Sportsman,

IRA A. PAINE,

to take entire charge of the production of his new patent Filled Ball, which we hold the exclusive right to make and sell.

In offering this new ball to the public it will require very little introduction, as in no instance where it has been exhibited has it failed to take the place of all others, and is to-day the only perfect substitute for a bird in use.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300 or boxes of 500. Send for price list. We intend offering special inducements to the trade.

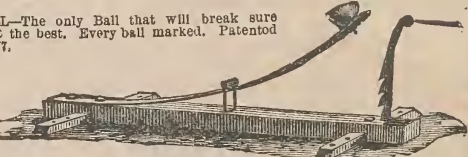
Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

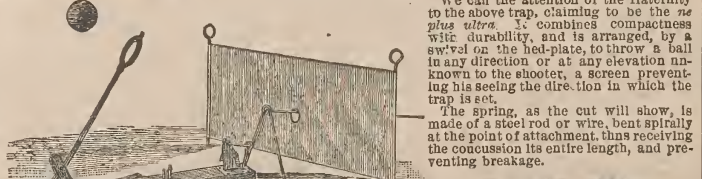
SPORTSMEN'S CLUBS AND AMATEURS.

THE PATENT ROUGH BALL—The only Ball that will break sure when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 18, 1877.

Geo. E. Hart & Co., NEWARK, N. J.



TRADE SUPPLIED. HUBER & MERWIN'S CHAMPION BALL TRAP.

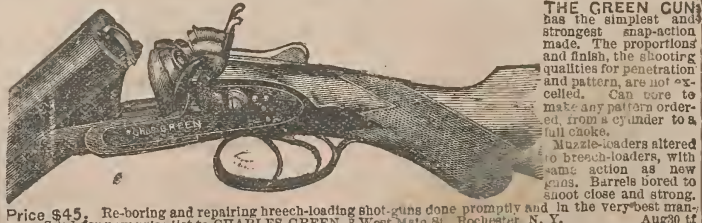


We call the attention of the fraternity to the above trap, claiming to be the *me plus ultra*. It combines compactness with durability, and is arranged, by a swivel on the bed-plate, to throw a ball in any direction or at any elevation unknown to the shooter, a screen preventing his seeing the direction in which the trap is set. The spring, as the cut will show, is made of a steel rod or wire, bent spirally at the point of attachment, thus receiving the concussion its entire length, and preventing breakage.

PRICE \$10. FOR SALE BY

BARTON & CO., Sole Agents, 337 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP, for durability and perfection of its operation, superior to them all, and take pleasure in recommending the "Champion" to sporting clubs and my friends. (Signed) Aug 17



Price \$45. Re-boring and repairing breech-loading shot-guns done promptly and in the very best manner. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Aug 30 11

C. M. BRENNAN, UNION SQUARE HOTEL, OLD KENTUCKY BOURBON & MONONGAHELA. UNION SQUARE, Corner 15th Street, New York. A. J. DAM & SONS, Proprietors. 40 South Clark Street, Chicago.

W. H. HOLABIRD, Manufacturer of Specialties in Clothing FOR SPORTSMEN, Valparaiso, Ind.

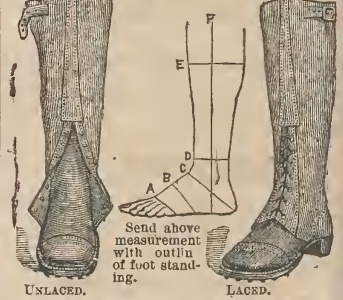
Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent by mail, post-paid, \$6.

Holabird's New Game Bag; weighs 12 ounces. The most convenient and coolest garment ever offered to Sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2.

Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style. Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind. Ask your gun dealer for Holabird's goods. Jy 12 11

THOMSON'S New Style Hunting Boots.



Has all the benefits of Top Boots, and ease and comfort of Laced Shoes. Watertight to the top. Send address for descriptive card.

THOMSON & SON, P. O. Box 1,016. 301 Broadway, N. Y.

GOOD'S OIL TANNED MOCCASINS.

The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine article. Send for illustrated circular. MARTIN S. HUTCHINGS, P. O. Box 363, Dover, N. H. (Successor to Frank Good.)

W. HOLBERTON, 102 Nassau St., N. Y., Agent.

The Sportsman's Note Book.

Containing Diary, Blank Scores for Rifle, Glass Ball and Pigeon Shooting. Game-cores, hints and receipts. Game Laws for the principal States, etc. Bogardus & Holberton's Rules for Glass Ball Shooting. By W. HOLBERTON, 102 Nassau street, N. Y. Sent post paid on receipt of price, 50 cents.

LIBERAL DISCOUNT TO THE TRADE. Oct 11 11

Founded July 4, 1803.



Thos. W. Sparks, Shot & Bar Lead MANUFACTURER. Office 121 Walnut Street, Philadelphia.

Magic Lanterns and Stereopticons. E. & H. T. ANTHONY & CO., 631 Broadway, N. Y., opposite Metropolitan. Stereoscopes and Views; Graphoscopes, Chromos and Frames; Albums, Photographs of Celebrities, Photographic Transparencies, Convex Glass, Photographic Materials. Awarded First Premium at Vienna and Philadelphia. Dec 25

Sportsmen's Headquarters FOR WINES, LIQUORS AND CIGARS.

Outfits for yachting. The camp or field a specialty. Olives by the case, gallon or bottle. THOS. LYNCH, IMPORTER, 99 NASSAU ST., Bennett Building, New York. Sept 27 11

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL:

Terms, Four Dollars a Year. {  
Ten Cents a Copy.

NEW YORK, THURSDAY, NOVEMBER 15, 1877.

{ Volume 9.—No. 15.  
{ No. 111 Fulton St., N. Y.

For Forest and Stream and Rod and Gun.

STEVE.

BY J. C. BURNETT.\*

“WHAT do I call the mule? His name is Steve,  
And you may hunt the country round  
For one that's got his sense. I don't believe  
A smarter beast's on top of ground.

“Out on the plains, or over in the hills  
He's right at home, on any trail,  
And in the work that other cattle kills,  
To him there's no such word as fall.

“For five years now we've roughed it, Steve and I—  
He was a gift from Mountain Jim—  
And ever since that time, through wet and dry,  
He's stood by me, and I by him.

“We've had some hard old times, and that is so.  
In cold and rain and snow and heat;  
We've known exactly what it was to go  
For days without a bite to eat.

“And yet the old boy never said a word;  
He moseyed right along the same,  
And rose a hill as lively as a bird,  
To show me that he was game.

“You see those scars there, five or six in all?  
He got them over on James Peak;  
For once he missed his hold and got a fall  
That laid him up for many a week.

“The way it came was this: somehow, he hears,  
Or smells an Indian more'n a mile,  
And when there's any near he shakes his ears,  
Or twists them round in curious style.

“He does that, too, whenever his saddle slides,  
Or when his snick is getting slack—  
A dangerous thing up on the mountain sides,  
Two hundred pounds strapped on his back.

“That day we climbed the Peak and started down  
Where first you see the river Grand;  
Just as we turned the mountain's snowy crown,  
Steve shook his ears and made a stand.

“‘Aha!’ said I, ‘there's something he has spied;  
I'll go ahead and note the signs.’  
And so I left the mule securely tied,  
And went alone down to the pines.

“And that is where I made a big mistake,  
Because I feared some Indian ruse,  
For Steven, by the signs he'd learned to make,  
Meant only that his pack was loose.

“The trail was narrow there, and very steep;  
The wind blew like a hurricane;  
In places snow was piled up awful deep,  
And clouds were threatening hail and rain.

“You may believe it was a lonely tramp;  
At last—the storm was getting nigher—  
I turned about to bring the mule to camp,  
At timber line, and make a fire.

“‘Twas thresome work, a-climbing that old Peak,  
It tries your nerve, as a general rule;  
And when I reached the spot, I couldn't speak,  
There wasn't a sign of any mule!

“Just how he came to fall is hard to tell;  
He likely turned to face the sleet,  
And missed his hold outside the trail, and fell,  
And down he went two hundred feet.

“Of course, I gave him up as dead enough,  
And went again the lonely tramp,  
Then struck a fire and thought it mighty rough,  
Steve out there dead, and me in camp.

“For hours I sat before the fire awake,  
With troubles piled up rather steep,  
Until at last, just as it came daybreak,  
I turned them loose, and fell asleep.

“I slept about an hour, and that was all;  
And when the sun began to gleam,  
I could have sworn I heard my old Steve call,  
Or else it was a curious dream.

“Straight up I sat, and then I couldn't stir,  
But listened while I held my breath;  
A little breeze was brushing through a fir—  
Excepting that, 'twas still as death.

“At last I heard the welcome call again—  
No dream this time, you'd better believe—  
And darn me if I didn't say Amen!  
As on the trail I met old Steve.

“The pack was gone, but that had saved his neck  
The ugly scars are there to tell  
How near he came to being a total wreck,  
And how I nursed the old boy well.

“Sell him? Well now, I rather reckon not,  
Not if I know myself, you see;  
To speak it all out plain, you haven't got  
The stamps to get that mule from me.”

### The Lake Region of Finland.

ST. PETERSBURG, RUSSIA, Oct. 11, 1877.

EDITOR OF FOREST AND STREAM AND ROD AND GUN:—About one hundred and thirty miles northwest of St. Petersburg lies the lake region of Finland, if such a name can be applied to a system of water which covers about one-half of the country. The water is deep, clear and cold, and the bottom is of rocks and gravel. These lakes have many outlets into the Gulf of Bothnia, but one of the largest outlets is by the Imotra River with Lake Tadaqa, and so by the Neva into the Gulf of Finland. At the outlet of Lake Saima, where the Imotra begins its rapid and broken course, beautifully situated on a wooded knoll overlooking the rapids, stands an English club house, the “Naraka Club,” composed of a few English gentlemen residing at St. Petersburg, who love the “gentle art.” It was the writer's good fortune last month to be invited by Dr. —, one of the leading members and founders of the club, and one of its best fishermen, to pass the closing week of the season at Naraka. For, owing to the unwearied efforts of the club, there is a close season in that country of forest and lake, and the 15th of September sees all fishing, whether with rod or net, summarily stopped, and the fish left undisturbed during the five months of the spawning season.

Almost every peasant in Finland is a landed proprietor—rough and poor land generally, yielding a few stalks of oats or barley. Long before the sun can ripen the grain come the autumn rains, and then it must be cut and kiln-dried. Of course it is unsaleable, but it answers for the food of the family, and supports them through the long and trying winter. When the land of these peasant-proprietors adjoins the water they own to the middle of the stream, or to a certain distance into the lake. These riparian rights the Naraka Club hires from the peasants, paying what to us seems a trifle, but is a very large sum to the Finns. They thus become keepers for the club without wages, and make excellent guardians of the water. The owners are permitted to fish with hook and line, but not with nets. During the summer months they easily avail themselves of this privilege, for they are hired as boatmen by members of the club and by their guests, at about 75 cents a day—far more than they can make by fishing.

Leaving St. Petersburg by the Finland railroad at ten o'clock one evening early in September, dawn found us landed at a wayside station in the woods not far from Wiberg. There we were detained two hours, for the posthorses which ought to have been in their stables, were grazing or rather browsing in the woods, each with a bell hung to his neck to keep away the wolves. About five o'clock, however, five little two-wheeled carts, each drawn by a spirited Finnish pony, driven by its peasant proprietor, drev up at the station. The posting system in Finland is peculiar. Each proprietor must furnish so many horses with their drivers per annum, and have them always ready. They do it very willingly, for in that poor country they are very well paid for the work at three cents a mile. One passenger, with his traps and the driver, was allotted to each cart, so off we started. They are very tough and active those little ponies, and wonderfully sure-footed. The regulation speed is ten verots, about seven miles an hour, but civil words and a judicious “backsheesh” will easily raise the speed to nine or even to ten miles. But I do not recommend this mode of traveling to the fastidious. The carts have no springs, and as you jolt through the ruts you must hold on with both hands or be thrown out. My back was bruised for three days after my drive.

The roads in Finland are generally excellent, well graveled and well drained. The cross road we were on was an exception. A drive of two hours and a half brought us to Lake Saima. There we took a steamer—staunch would be a

better name for her. We coasted in and out among the islands in a channel as intricate as that through the Thames and Islands of the St. Lawrence, till two o'clock brought us to the landing near the club house. There two members who had preceded us, met us with the startling intelligence that one of them had just caught a true salmon. Then arose a discussion. For whether the true salmon is found in Lake Saima is as much a *questio verata*, as whether it is found in Australia. It is generally conceded that it is impossible for the fish to ascend the Imotra Rapids. There are reaches of a hundred yards or more, where there is not an eddy or a pool, where he may rest his weary tail—in unbroken rush of waters between rocky perpendicular banks. The Imotra Falls, by the way, are one of the sights of the country. People come from St. Petersburg to see them.

But, argued the pro-salmon party, the fish can come into the lakes by the Gulf of Bothnia, and so through the water system till they reach Lake Saima. This explanation, however, the opposition would not accept, contending that salmon did not run up the Gulf of Bothnia. So we left the subject where we found it. Each party perfectly satisfied with its own views, the usual result of all discussions.

Of course our first care after our arrival was for the inner man, which had been somewhat neglected *en route*. The question of food at Naraka is considerably involved. The country furnishes milk and excellent butter, and eggs of dubious character, for the Finns like them a little high. It furnishes good potatoes, too; and if you are on friendly terms with an adjoining proprietor, and compliment him with an occasional fish, he will compliment you in return with an occasional quarter when he kills. But he kills so rarely! Your principal articles of food, therefore, including corn bread, you must bring from the city.

After lunch a boat was assigned to each sportsman, and we paddled into the lake. You may fish with a fly or troll with artificial bait. I tried both. With a fly you are quite sure of a nice mess of small trout, but if you go in for the big ones you must troll. On the edge of the rapids, just before the water breaks, lie the trout. Your boatman takes you as near as is safe, and you let your line drift with the current into the rapids. A jerk! and you reel in. You think from the strain on your rod that you have hooked a monster, but you soon find that it is the current that gives weight to the fish, and when you have reeled him well out of the rapids you discover that you have a little fellow of one or two pounds only. After taking five or six of these gentlemen, you pull further up to the point where the lake narrows into the river. There are the big ones. “Lochies” the natives call them, no matter what species they may belong to—Lake and brook trout, grayling, salmon, all are “Lochies” if they rise over six pounds in weight. There you let out more line, twenty or thirty yards, and await the result. Your boatman pulls gently, and wets or greases from time to time the plaintive oar-lock. A bite! and you quickly throw up the end of your rod. For a moment you are in doubt whether he is a big or a little one. For a moment, too, the fish pauses as if amazed, then off he goes like a shot. And now the sport begins. You are seated in the stern of the boat, you drop upon your knees, so as to face the enemy, your reel hums, your pliant rod—and you need a pliant one—bends as if it would break. But you keep the end well up that he may not rub his nose against the bottom, and if you feel that he is securely hooked you even check him a little lest he should reach the rapids. “There he is,” as he leaps from the water in a vain effort to free himself from the hook—a brook trout of at least fifteen pounds! “Leap again, old fellow; the more you do of that the sooner you will tire yourself out.” “There he goes again!” And now your line suddenly slacks, and you cannot help feeling some painful misgivings. You reel in as if your life depended upon your speed, when suddenly there is another rush, and off he goes again.

In the meantime your boatman, if he is a good one, has been quietly aiding you as you play your fish. Turning the boat so as always to keep your face to the enemy, pulling quietly when the fish is pulling hard, and rapidly when the line is slack, but all the time gradually approaching some well known spot on the shore where the water is deep and free from those harrows, snags and rocks. At last you feel the keel grate under you, and you land. And now the fish is getting tired, and you reel him slowly and carefully in, looking

\* MR. EDITOR: WASHINGTON, Oct. 31, 1877.  
I cannot agree entirely with Mr. Ingersoll in what he says of the total depravity of the mule. My experience has shown me that when they are well treated, and not abused, one can get a good deal of service out of them.  
J. C. F.

out for his final rush when he catches sight of you or your boatman. The boatman takes his gaff and stands in the stern of the boat, or on a jutting point. Gradually the fish comes rolling in, but as the boatman raises his arm he is off like a shot. But you are on the lookout and let the line run freely. It is his last effort. You reel him steadily in. The boatman with one motion strikes the gaff into the fish, and raises him into the boat, and at your feet lies a spotted beauty of sixteen pounds and a half.

The broken water below the rapids is full of fish, though here they run small. I took two, one of two and the other of three pounds, at the same time. One with an artificial minnow of India rubber, the other with a salmon fly. The minnow is light, and plays with the rapid stream on the surface of the water. But the end of the season was approaching. We had considerable discussion whether it ended on the evening of the 14th, or on that of the 15th, as the law was not clear upon the subject. But we decided that all laws should be interpreted in a liberal sense, and concluded to fish all the 15th. And glad enough I was that we did so. All day long there blew a nasty, cold, northeast wind, the worst for fishing that can blow. The fish would not bite; but at dark I tried them again. I suppose they had got hungry by this time, and wanted their dinners no matter which way the wind blew. Pretty soon I landed a two-pounder. He was a lively little fellow, and made so much play that I thought in the gloaming that I had a big one. Then came a jerk and a rush, and I could just distinguish, thirty or forty yards off, a dark object throw itself into the air, and hear its splash as it fell back into the water. Fifteen or twenty minutes of conscientious work landed him safely. Another jerk and rush, and after twenty minutes more another big brook trout lay alongside of his brother. These two fish weighed thirteen and a half pounds each, and so closed the season. These fish are as delicious as they are gamy. I never tasted such high flavored trout—entirely free from the muddy flavor of so many of our fish at home. The Finnish women, too, though not exactly "cordons bleus" in the Catholic sense of that term, cook fish deliciously.

We were fortunate in our company at Naraka. We had among us gentlemen who had seen much of the world, and especially of the Russian world, and their conversation was interesting and instructive. We dined late, for the best time for the big fish is when it begins to grow dark. Then they feed, and then, too, they are more easily obtained by the mimic minnow. We were not without pocks, too, among us. When the fish would not bite during that northeast blow on the morning of the 15th, one of our poets sang as follows:

#### THE SONG OF THE FISHES.

New joy at Naraka, new glee in the lake,  
No longer shall M.—y our big Lochies take.  
Close season has come, for months we are free,  
And we flop our tails at the parting Teugiee.

Naraka, Sept. 15, 1877.

The Doctor whose name should fill the blank in the above poem, completed the poem as follows when I returned late in the evening with my three Lochies:

P. S.

Too soon, alas! we joyous fish,  
Did boast we had escaped the dish,  
A Yankee came with eruel hook,  
And from our midst three Lochies took,  
And now our joy and glee we hide,  
And flop our tails on t'other side.

As I have not a copy of the Doctor's "Lament" by me, I may do injustice to its poetic merits, but I give it as I remember it.

Deep in Lake Sumner there lurks a large fish. He is sometimes seen on a summer's evening as he gambols with elephantine playfulness on the surface of the water. We saw him leap, and an English M. P. of our party spoke the general sentiment when he said that he "was as big as a donkey." Innumerable are the hooks he has carried off, and the lines he has snapped like pack thread. The bottom of his den is strewn with hooks and lines and broken bits of rods, as the cave of Polyphemus was strewn with the sad proofs of his prowess. I am going for that fish next summer. W. H.

## Fish Culture.

**TROUT PROPAGATION AT PALENVILLE.**—The trout hatchery at Palenville, built under the superintendence of A. W. Marks for the Committee of the Board of Supervisors, is copied after the New York State hatching-house, designed by Monroe A. Green, who is the most successful fish-culturist in the country. Mr. Green is now at Cape Vincent, Jefferson County, superintending the taking of salmon trout. Mr. Marks is now progressing finely at Palenville, taking spawn daily. From the sources of supply now open to the committee, it seems probable that the hatchery will distribute to the various towns in the county from 300,000 to 400,000 young trout next spring. The committee, Supervisors Breasted, Mulford and Holcomb, aided by Mr. Hopkins, have proceeded carefully and made no mistakes, and the result of their labors will be of substantial benefit to the country. Mr. Marks pronounces the streams of Ulster County the best he has ever seen for trout purposes, and it is not unlikely that the supervisors of Ulster may conclude to stock their streams also.—*Catskill Recorder*.

**VEGETABLE GROWTH IN FISH PONDS.**—Our respected friend and well-informed editor of the *Germantown Telegraph*, gives his readers some really valuable information, gathered from his own experience, in regard to the kind and quality of weeds to be cultivated in fish ponds. We have endeavored for years to inculcate upon fish breeders the absolute necessity of planting something of the kind. No fish pond should have an entire gravelly bottom. It should have some mud. Aquatic plants grow from mud. Our readers who angle for trout will recall to their remembrance that the best natural trout streams which they ever fished had a growth of weeds and lily-pads at their mouths. Such a stream generally runs over a gravelly bed, but it carries with its current particles of mud, silt, seeds, pollen and earthy matter, which, floating down to the point where the force of the current expends itself, is deposited on either side of its debouchure. Out of this deposit the weeds grow in a semicircle, their tops floating in a mass upon the surface, and leaving an oval space of clear water. Our readers will recall the fact, also, that in all natural ponds, which are fed by bottom springs, the weeds and lily pads

grow in circles around the spring-holes, the gushing water throwing off particles of earthy matter on all sides. Expert anglers will always fish in the open water along the edges of these weeds, not only because the trout are attracted to them by the purity and coldness of the water, but because the plants breathe out oxygen, and supply food in the shape of larvæ and mollusca, as well as shade, shelter and security to the trout. Some plants are more attractive than others; and just as the gardener selects and disposes his plants with a view to utility and beauty, so will the aqua-culturist use like judgment in placing plants in his ponds. But let us hear what the veteran editor of the *Germantown Telegraph* says about this:

No fish pond should have an entire gravelly bottom. There should be some mud. Here the water-lily should be planted. All fish in a pond like this plant, and its flowers floating on the surface make a very beautiful appearance. Then there is the calla lily, which can be set with the pots where the water is not too deep, and will grow and bloom all summer. We have tried both and find them always surrounded with gold fish and others. Next allow the grass to grow along the edges of the pond into the water. It will be a cover to the fish in protecting them against the sun, and will admit of their eating fresh soil and some of the tenderer fibres of the grass-roots. By these the water becomes much more life-sustaining by reason of the oxygen supplied.

We thank our contemporary for his courteous reply to our inquiry for light on this subject, and trust that other intelligent gentlemen will follow suit. We have much yet to learn on the culture of aquatic plants.

BEDFORD, O., Nov. 9.

MR. EDITOR:—The last number (Nov. 1st) of *FOREST AND STREAM* is received, and, like every number, without exception, is good. I like the article on the growth of trout, but still think those six and seven inch fellows were old fish. I also think Mr. Page's half pound trout was at least three, if not four years old. Brook trout do not grow rapidly before they are two years old—at least, that is my experience with them. I hope this subject will be thoroughly investigated, as it is of some importance.

The immense size of the Maine trout have always been a marvel to me—why they should be so much larger than the trout of the Lake Superior region I do not understand—six pounds three ounces being the largest brook trout I ever saw, taken at Sault Ste. Marie. Yours truly, T. GARLOCK.

—The San Francisco *Sunday Chronicle* says: "The catfish have increased so much in numbers in Sutter Slough that it is proposed to remove the restriction upon catching them, the Fish Commissioners being satisfied that the fish have become so numerous there and in other waters in which they were planted that there is no danger of their being seriously decreased by ordinary fishing. They have also begun catching them in throw nets for stocking the Sacramento River."

Why don't they put up some of those anehovies which we hear about on the California coast around Santa Barbara? They can make the oil in the country, and there is no reason why we should not have American anchovies to compete with the French and Italian products.

**GROWTH OF BLACK BASS.**—Facts of interest regarding the growth of fish are gradually coming to light. Why don't the four score fish breeders and ichthyologists who take the *FOREST AND STREAM* jot down little items of information like following?

MORRISTOWN, Nov. 9, 1877.

EDITOR *FOREST AND STREAM*:

In your paper of Oct. 11 I saw an account of the rapid growth of trout from the pen of W. H. Hasbrouck, of Ellenville, N. Y. The statement which he makes is certainly very encouraging. I wish to say a word about black bass.

One year ago this fall there were placed in D. L. Miller's pond at Madison, in this county (Morris) fifty of these fish measuring from two and a half to four inches in length. On the 17th of October, about one year from the time of putting them out, Mr. Miller had occasion to draw the water down for some repairs. He had the dam arranged as to take any fish that might run out. Eleven bass were caught. They measured from ten to thirteen inches in length, and were undoubtedly the same fish which were put in the year before, as none of this variety of fish were ever known in the pond before. This is the first time that I have had an opportunity to observe their growth. This is a little fishy, but has the merit of being true.

CHAS. J. FEARSON,  
Fish Warden for Morris Co., N. J.

**BIRD HABITS.**—The Greensburg (Penn.) *Herald* of the 6th inst. says: "There are about 100,000—more or less—birds (black or cow birds) that have established a 'roost' in St. Clair Cemetery, and, just as regularly as the rising of the sun, these birds leave their roost between daylight and sunrise, and in one immense flock wend their way westward. Just exactly where they go we know not, and, after foraging all day, they return between sundown and dark and take up their lodging for the night on trees in the cemetery. Can any one give a reason why these birds selected the cemetery instead of other woodland for their roost? Or why they all congregate together at night and all leave at the same time, and all go west, and never east, south, or north?"

We can't give the be'ca'ws of the birds roosting in the cemetery, but possibly there may be some winter wheat due West. The examination of the crop of one of those black birds would soon determine this question.

**DRUMMING OF RUFFED GROUSE.**—"Splasher" asks: "As it seems still to be a point of discussion how the ruffed grouse drums, would it be out of the way to suggest as a reasonable supposition that they do it with their drum-sticks?"

**A HINT TO CATERERS.**—The older men eat, and the more teeth they lose, the more oysters they grow. Cultivate the agent.

—The average mid-day temperature at New Smyrna, Fla., for the month of October was 79 deg. 4m.

## Woodland, Farm and Garden.

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, SEC. N. Y. HORTICULTURAL SOCIETY.

### ENGLISH NAMES OF WILD FLOWERS AND PLANTS.

THE following lecture by the Rev. W. Tuckwell before the Somersetshire (England) Archaeological and Natural History Society is so interesting and instructive that we offer no apology in placing it before our readers:

Eight years ago I was piloting a famous botanist from the east of England among the fields and lanes round Taunton, when he asked me the name of a plant which he did not at the moment recognize. I answered that it was the Gipsy-wort, and received a prompt rebuke. "This is the third time," he said, "that I have inquired the name of a flower, and you have answered me in English. The Latin names are universal, the English at best are local. It is to be wished that all English names of plants could be forgotten, and their scientific names become popularized instead." Unquestionably a foolish utterance, it was of great service to myself, for it set me to consider the real value of these names which my pedantic guest despised, and from that time to this I have never encountered the popular name of any English wild flower without questioning it closely as to its etymological history and meaning, and noting the passages in our literature where it occurs. It would be a great pleasure to me to believe that the knowledge gained by these inquiries, put together to the best of my power, could interest you to-night as much as it has interested myself.

It is no new thing to infer from the terms in use at the beginning of a nation's history the arts and customs of the nation using them. Thus the fact that in all or nearly all the Aryan languages the words for the Supreme Being, for the king, for brother and sister, for plowing, grinding, building, closely resemble one another, is admitted to show that our common forefathers in times when they were still one people, and had not yet scattered into India, Persia, Europe, had the beginnings of religion and government, possessed the family life, knew the simple arts which are most needed for the comfort of home life. Let us see what light will be thrown upon the habits of our Teutonic forefathers if we apply their method of investigation to the popular names of plants.

#### TEUTONIC NAMES.

The following words are common to all the Teutonic languages—must have been known, that is, to the race from which we ourselves, with the Germans, Danes, Swedes and Norwegians, are descended, on their first settlement in Europe, and before they broke up into sub-divided nations. The first I will take is birch, the kind of which must, we find, have been used for boat-building and for roofing houses; for boat-building, since the word "bark," from the same root as birch, stands for ship in English, Dutch, Icelandic, Danish; for roofing houses, since the old English *beorgan* and the German *bergen*, also from the same root, mean to cover, protect, or shelter. From this simple word, then, we gather that our ancestors possessed the arts of building boats and of roofing or thatching houses. Houses could not be built without timber, and we find the word "tree" in almost every Aryan language standing for three things—for a tree, for timber, and for an oak, extending the use of oak wood for building purposes back to the first formation in Asia of our mother language, and presenting us with the additional facts that our European ancestors built of oak timber the houses which they roofed with birch. In Hazel a fresh fact lies buried. It is in all Germanic dialects the instrumental form of *Jaeh*, command or behest, a Hazel stick having been used, as Jacob Grimm informs us, in the earliest times as a sceptre or baton to keep order among slaves and cattle. Without dwelling on the fact that the old word *halsian*, to foretell, indicates the use of the hazel rod for purposes of divination, we have the additional probability revealed in a single word that our remote ancestors possessed slaves and cattle. In hawthorn, common to Swedish, German and English, we have testimony to the use of a haw, *hag*, hedge, or fence, "honouring the holy bounds of property," and consequently to the division and appropriation of land, in the earliest Teutonic time. My next word makes some demand upon your etymological erudition. Without tracing particulars, I will ask you to believe that the Sanskrit *Kshu*, to dwell, passes through various forms in one direction to the English "home," in another to the word "heath"; now meaning the plant which grows wild on open land, standing originally for the land itself. "My foot," says Rob Roy, "is on my native heath," and the same idea was enshrined in the same word to the first Teuton settlers. In the forest he fought his enemies, hunted his prey, hewed timber for his fences, and peeled timber for his roof; his home was in the open land, or heath, from which, again, when ages had passed away and Christianity possessed the towns, he still worshipped his father's gods upon his father's heath, and gained, as Trench thinks, his ancient name of heathen. A sixth word lifts him higher than all the rest. The word beech, in Gothic, old High-German, modern German, Norse, Danish, Dutch, English, is identical with beok, the Runic tablets of our ancestors having been carved upon this wood. In sloe, the wild plum, we have the root of "sly," its tough wood having been used for bludgeons; dogwood is daggerwood, from *dag*, to strike; from ash, whose wood was therefore used for spear-shafts, came the old English *ese*, a spear; sedge is allied to *seez*, a sharp, small iron sword. And let us observe that while all these plants, bearing purely Teutonic names, extend far into Northern Asia, trees which stop short at a more southern limit—the elm, chestnut, holly, sycamore, plum, pear, peach, cherry—all have Latin names, showing that the Teuton squatters came from a colder country than that in which they are supposed to have settled near the Roman provincials on the Lower Rhine. The knowledge that wheat, barley, oats, corn, rye, are all Teutonic words, completes the historical picture given by the first list of names. They show us a race of men coming from a northern to a southern region, dwelling in timber houses, roofed and thatched, launching boats upon the rivers, possessing cattle and slaves, recognizing the rights of property and the sacredness of home, fighting with cudgels, swords and spears, familiar with cereal agriculture, in some way not ignorant of letters. All these facts, just hinted at here, but challenging minute investigation, we owe to a dozen common names of English plants, whose Latin equivalents teach and commemorate nothing of any national interest to ourselves.



Table with two columns: J E Mann and E M Law. Scores for various categories like 506434554845556-62, etc.

Total... 167 Grand totals... 987

After the shooting the contestants were the guests of W. H. Pray, of the firm of John H. Pray & Sons, Boston, where a collation was partaken of and remarks made by Col. Stevenson, Col. Moore, H. T. Roekwell, H. S. Pierce, N. T. Washburn, W. H. Jackson and others. A match is proposed between the Suffolk and Middlesex members of the Massachusetts team.

CREEDMOOR, Nov. 7.—The fifth competition for a Ballard mid-range. The match was open to all comers. Distance, 200 yards; fifteen shots, without cleaning and without sighting shots; position, standing. Any rifle was allowed. There were sixteen entries. The match was contested with great spirit. The day was very favorable, being moderately warm, with not enough wind to render the shooting difficult. Following are the total scores:

Table of scores for Creedmoor Nov 7. Columns include names like W M Farrow, J H Teackie, and scores.

Farrow took the rifle and one-fourth of the entrance money, and Holton and Lewis one-sixth and one-twelfth of the entrance money respectively. John Cavanagh, after making 16 points, was disqualified by firing on the wrong target, and C. H. Johr retired after making 12 points.

The great number of persons visiting Creedmoor during the past summer has determined the building of a new hotel, which will stand on the grounds of the National Rifle Association, just to the left of the entrance. It will accommodate fifty persons, and is designed to meet the wants of riflemen and teams from a distance. Building preparations have already commenced.

Nov. 8.—Creedmoor was jolly to-day, and had put in its best appearance. Steamers floated from every mast. The hotel in the place was gayly decorated with flags and trimmed with wreaths of holly and pine branches. The markers and assistants wore their Sunday clothes. The National Rifle Association had given them a holiday and permission to shoot a rifle match, while the patrons of the range had supplied the prizes. There were thirty-four riflemen who, under the title of the "Creedmoor Guard," marched in a column of fours" to the 200-yards firing-point at 2 P. M. Each competitor was allowed 10 shots, and a prize was to be awarded to every man. The wind blew a gale from the east, and played havoc with the scores, although some were very fair. Following is the list:

Table of scores for Creedmoor Nov 8. Columns include names like Charles Rose, G Ulicher, and scores.

After the shooting was over line was reformed, and the "Guards" marched to the hotel, where the prizes were awarded. Barrels of flour, packages of tea, household utensils, and sums of money were distributed, and every one was happy according to his portion. The wives and sweethearts of the men assembled in the hotel parlor in the evening, and the night was devoted to dancing.

—Company G, Seventy-first Regiment, Capt. Webber commanding, held its monthly contest for the "Banks" rifle and the "Allen" medal, at Creedmoor last week. The match for the rifle was at 200 yards off hand, seven scoring shots; and the medal was contested at 100 and 150 yards distance, five shots at each range. Sergt. Steele won the rifle upon the score of twenty-nine out of a possible thirty-five points, and Sergt. Scott carried off the Allen medal upon the score of thirty-four out of a possible fifty points.

CREEDMOOR, Nov. 10.—Three matches were shot—the sixth competition for the fowling piece, the match of the Irish-American Club, and the contest for the Marksman's Badge. The day was a disgusting one, with cold rain and capricious gusts of wind.

Match for the fowling piece; weapon, any rifle within the rules; position any, distance, 1,000 yards; thirty rounds, with the privilege of two sighting shots; entrance fee, \$1; the prize to become the property of the competitor winning it, three times, not necessarily consecutively. There were ten entries. Mr. C. E. Blydenburgh, of the American team of 1877, won the prize for the third time, making it his own property. His score, 137 out of 150 points, when one takes into consideration the bad weather, is a good one. Mr. W. M. Farrow also made a good record, scoring 136 points.

Table of scores for Creedmoor Nov 10. Columns include names like C E Blydenburgh, W M Farrow, and scores.

The Marksman's Badge was next in order; open to all members of the National Rifle Association and members of the N. G. S. N. Y., in uniform; distances, 200 and 500 yards; five rounds, with the privilege of two sighting shots at each distance; weapon, Remington rifle, New York State model; position, standing at 200, and any with the face toward the target at 500 yards; entrance fee, 50 cents. The badge to become the property of the competitor who may win it three times, not necessarily consecutively. Twenty-five per cent. of the entrance money to be awarded to the competitor making the highest score, and ten per cent. to the one making the second highest. Members of the National Guard allowed to count their scores made in this match as a qualification for the military marksmen's badge. Mr. William Robertson, of the Scottish-American Rifle Club, having won the badge three times in succession, made it his property. There were eleven entries. The following are the scores:

Table of scores for Marksman's Badge. Columns include names like W H Robertson, C M England, and scores.

In this match, there having been some informality as to Mr. W. H. Coehran, his score of 41 was ruled out. As it was a misunderstanding on Mr. Cochran's part, the matter may be brought before the Executive Committee.

The Irish-American Rifle Club shot at two o'clock for their mid-range badge, the conditions being: Open to members of the club only; weapon, any rifle within the rules, sporting weapons handicapped eight points over all; distances, 300 and 600 yards; position, standing at the former and any within the rules at the latter range; ten rounds, with the privilege of two sighting shots at both distances. There were six entries. F. F. Millen won the badge for the first time on a score of 72 out of 100; Captain S. F. Kneeland, Inspector of Rifle Practice, Eleventh Regiment, N. G. S. N. Y., and Captain J. Kerr coming in second and third on creditable records, considering that the ranges are the most difficult to make a good record at of any in the field. The range will be open on Thanksgiving Day.

On Wednesday Mr. C. L. Bruce was the winner of the Cameron medal. The distances were 200 and 500 yards; ten rounds, with two sighting shots at each; sporting guns being handicapped eight points over all. In four of the five last competitions, this last spring and summer, he performed the extraordinary feat of making full scores at 500 yards each time; that is, forty bull's-eyes out of as many shots, the winning scores in each competition aggregating 89, 91 and 92 out of 100 points.

CONVIN'S GALLERY, 1,222 Broadway, Nov. 5, 1877.—Third competition—Time, 1m 30sec.

Table of scores for Convin's Gallery. Columns include names like Pierre Lorillard, Dr Wile, and scores.

The fourth competition will be held on Monday evening, November 13, at this gallery.

MORSEMERE RANGE.—The third competition for the "Hodgman" trophy took place at Morsemer Range, near Yonkers, last Friday. The conditions were: Distance, 500 yards; Carton target, (bull's-eye counting six); 20 scoring shots. The scores were as follows:

Table of scores for Morsemer Range. Columns include names like G Dusenbury, W M Farrow, and scores.

YORKVILLE RIFLE CLUB.—The following are the scores of the first competitions of the Yorkville Rifle Club, held November 6.

Table of scores for Yorkville Rifle Club. Columns include names like A Smart, J J Paulding, and scores.

Table of scores for Yorkville Rifle Club. Columns include names like J R Smith, G McLeish, and scores.

Mr. Smith carrying off the badge and Mr. McLeish the second prize in money. Wind blew from about two o'clock, half gale, making it almost impossible to make a good score off-hand. The thermometer registered 36 degs. Fahrenheit. All the above 200 yards, off-hand, Creedmoor targets.

JOHN L. PAULDING, Secretary Y. R. C.

SYRACUSE.—A new club has recently come into existence. Dr. Van Duy is President, J. P. Rule, Secretary, and Frank Abbott, Treasurer. Among the members are Dr. Van Duy, Dr. Weaver, Willet Brown, Clarence Brown, Eddie Dawson, Homer Dawson, J. W. White, J. P. Rule, W. H. Wood, Charles H. Wilbur, Geo. S. Hier, Luther Watkeys, Frank Abbott, Fred Howard, Thomas G. Alvord, Jr., and L. J. Elder. The club has already constructed an in-door range in the upper story of Cook's block, corner of the creek and Onondaga street. It is 110 feet long, and is provided with two targets, two 32-calibre rifles, and all the apparatus used in Fred Auer's gallery in James street. The members meet for practice daily, and many of them have already shown considerable skill. The Amateur Rifle Association, which has made such fine shooting during the season, has a record which compares favorably with that of any similar organization. Another year it will probably increase its membership, receiving recruits from among those who can show good records. It will doubtless send a team to Creedmoor, to compete for some of the best prizes. The Association hold short, mid and long range rifles, and has made some fine scores with Remington military rifles. Squads from the Fifty-first Regiment visit the range almost daily, and many excellent marksmen are being developed. During the winter practice will be continued at the arsenal. Another season there will be several good teams organized, which are certain to make good records. Classes will be organized only from those who have passed into the first or marksmen's class.

NEW ORLEANS—CRESCENT CITY RIFLE CLUB.—There was quite a fine match at Frogmoor on the 4th for a gold badge, at 200 yards, with military rifles, open to all comers. There were thirty-eight entries, with Lieut. C. A. Thiel, of the Continentals, leading the score and winning, as will be seen by the following, which are the leading scores out of a possible 25:

Table of scores for New Orleans. Columns include names like Lieut C A Thiel, Ferd Cook, and scores.

CAN WE CREDIT THIS?—The New Orleans papers tell of a lady who, with a Remington, at a rest, at 500 yards, made the following score:

Table of scores for Can We Credit This. Columns include names like 500 yards, and scores.

Either we shall have to exhaust our stock of marks of exclamation, or must be better posted as to the circumstances. Was that lady's rifle put in a fixed rest, screwed, bolted and lashed down, or how? —General W. J. Behan, President of the Crescent City Rifle Club of New Orleans, was in the city this week. The fame of the leading rifle club of the South is due in large measure to the efficiency of their President.

CINCINNATI, Nov. 4.—The long-talked-of match between picked teams of the Cincinnati Shooting and Fishing Club and the Cincinnati Turners took place at Trimpe's Range on the 27th inst., and proved an exciting affair. The match was shot at 200 yards, off-hand, regulation target, rifle, any. The following is the score:

Table of scores for Cincinnati. Columns include names like W Y Sedam, W Caldwell, and scores.

Table of scores for Cincinnati. Columns include names like M Genderlin, W Steube, and scores.

ENDORING THE PETITION PRESENTED TO CONGRESS TO PROMOTE RIFLE RANGES.—The following letters, from officers in various States, may be of interest:

GENERAL HEADQUARTERS, STATE OF ARKANSAS, ADJUTANT-GENERAL'S OFFICE.

COR. GEO. W. WINGATE, Ins.-Gen. Rifle Practice, N. Y.: Colonel—Your communication of date Oct. 13, 1877, is received, and the enclosed forms of petition have been at once placed in circulation. As it is already late, I will only endeavor to have the names of State officers and a few leading men at the Capitol, and of the officers and men of the Schutzen Verlen appended, and will forward to Hon. Jordan M. Cravoes, Representative in Congress from this district. I have the honor to be very respectfully, etc., JAMES M. POMEROY, Adj.-Gen. and Ins.-Gen., Ark.

GENERAL HEADQUARTERS, STATE OF ILLINOIS, ADJ.-GEN'S OFFICE, Springfield, Oct. 22, 77.

GEO. W. WINGATE, Supt. Rifle Practice S. N. Y.: General—If you will send me, say fifty of the blank petitions to Congress favoring appropriations for rifle practice in the Regular Army and National Guards, I will send them to different companies in the State, and have no doubt can send on representatives several thousand names. I enclose you a circular that has been issued and sent to the Illinois Representatives in regard to increase in quotas in army. Very respectfully, H. WILLIARD, Adj. Gen., Illinois.

COMMONWEALTH OF PENNSYLVANIA, ADJ.-GEN'S OFFICE, Harrisburg, Oct. 20, 77.

N. P. STANTON, Esq., Pres. Nat. Rifle Ass'n.: Sir—If you have your communication concerning petition to be presented to Congress, looking to the promotion of military rifle practice, I shall be glad to further the measure with the assistance I can bring to it. As speed seems just now necessary, I have concluded to promptly bring the matter to the attention of our Pennsylvania Congressmen, and will, if there be time and you furnish me with blanks, circulate the petition for signatures. Very truly yours, JAMES W. LATTA, Adjt.-Gen. of Pa.

NEW ORLEANS, Oct. 22, 1877.

COL. GEO. W. WINGATE, Ins.-Gen. of Rifle Practice, N. Y.: Colonel—You have the honor to acknowledge receipt of your favor of the 13th, with enclosures as stated. Your communication, with accompanying paper, I handed to the President of the Crescent City Rifle Club, Gen. W. B. Behan, who will personally interest himself in the matter, and forward the petitions to our Congressional delegation as directed. Very truly yours, JAMES BUCKLEY.

WHAT THE "ARMY AND NAVY JOURNAL" DOES NOT KNOW ABOUT THE NATIONAL RIFLE ASSOCIATION.—In the last issue of the Army and Navy Journal it berates roundly one of the directors of the N. R. A. for asserting that the association is entitled to use the appellation of "The National Rifle Association of America," and contradicts him flatly, asserting the N. R. A. has no legal right to the title. This is indeed worthy of Rip Van Winkle. The journal must be entirely oblivious of the fact known to every riflemans, and which has been published in every newspaper which has paid any attention to rifle practice, that the title of the N. R. A. was formally changed by legal proceedings instituted by Judge Gildersleeve during the past year, and that its legal title to day, A. D. 1877, is THE NATIONAL RIFLE ASSOCIATION OF AMERICA. Will the Army and Navy Journal kindly search the record?

MAJOR LEECH ON THE ELCHO SHIELD.—On the occasion of the meeting of the Dublin Corporation, held at the close of last month, Major Leech offered the following letter:

49 RUTLAND SQUARE, Oct. 14, 1877. My Lord Mayor: As inquiries are being frequently made with respect to the coming of the Elcho Shield to Dublin, I am induced again to address your Lordship on the subject. His arrival has been deferred until the time most convenient for your Lordship to receive it. It has always been the delight of the Irish riflemen in carrying out the orders of our noble captain, His Grace the Duke of Abercorn, to whom Irish riflemen owe so much, to place the trophy with our Dublin Corporation, who have always taken so warm an interest in our successes, and the sympathy offered to us by successive Lords Mayor has been so gratifying that we naturally have peculiar pleasure in placing this emblem of success in the City Hall for the third time in five years. On this occasion this pleasure is enhanced by the fact of your Lordship occupying the distinguished position of our Chief Magistrate, and about to do so a second time by the unanimous choice of the citizens. Some of our champion shots who took part in the late International Rifle Match in America will shortly be in Dublin; thus I hope that the Eight who won the Elcho Shield match on July 19, with the highest score ever made for that prize, will be present. The Elcho Shield is now in my charge as honorary secretary to the Irish Rifle Association, having been handed over to me by the council of the National Rifle Association, and I hold it subject to your Lordship's instructions, which will be my duty to place before His Grace the Duke of Abercorn. I have the honor to remain your Lordship's faithful servant,

ARTHUR B. LEECH. It was determined that Major Leech's letter should be inserted in the minutes. Mr. E. Dwyer Gray, M. P., commented on the fact that while the English Volunteers and the Scotch Volunteers and the Isle-of-Man and Channel Islands Militia were allowed to compete for the Queen's Prize, all the inhabitants of Ireland, even the Irish Militia, were pointedly excluded from the competition. The Freeman's Journal, of Dublin, under date of October 22, thus comments on the subject of united teams for future International contests: We are not so bumptious as to believe that an Irish team

would certainly win where a united team has lost; but we believe that experience has shown that an Irish team, as such, can do better work than when commingled with men of whom little is known. Let us take the conditions under which a united team is formed, and we shall see that they are utterly opposed to the theories laid down by Mr. Rigby and by Major Leech, and to the practice of the most successful rifleman alive. The best of the English, of the Scotch and of the Irish are taken; but what do they know of each other? They find themselves shoulder to shoulder; but there is no interwoven sympathy, the result of steady practice and mutual assistance. We believe our United Kingdom team is in its very essence a mistake; and we object to the Irish having to add to their already long list of disabilities the woeful honor of sharing in a defeat which is pretty well a foregone conclusion. That this is not mere presumption is evident from the fact that the late Irish team fought far better at Creedmoor than the united team, although the experience gained prior to the contest was far inferior to that attending the other. We hope that in future our Irish team, pure and simple, will maintain the reputation we have won in the matter of rifle shooting. We think this session of distinct nationality worse than a mistake—we regard it as a very ingenious absurdity. We do not wish to harbor suspicion unduly; but we believe that Ireland was allowed to participate so that the defeat might be borne the easier. Had success crowned the effort, very little would have been heard of Ireland; the praise would have been for the British team. If there is such a burning anxiety to be joined with us, let the Queen's prizes at Wimbledon be opened to Irishmen, and let our country be recognized as existent. When this is done, we may consider the wisdom of going to America under the English flag, taking our share in the loss, and being ignored in the victory.

The Volunteer Service Gazette contains some very interesting correspondence. Mr. Herbert P. Miller writes an excellent letter to the journal, from which we make the following extracts:

"It appears that during the last ten years but little, if any, improvement has been made in the manufacture of small arms. The result of this is, Mr. Rigby points out, the Americans have stepped in front of us, and are now monopolizing a branch of industry which once belonged to this country; so we now see British honor and "British interests" affected at one and the same time. I do not mean to assert as a matter of fact, that the American rifles are more accurate than those used by the British team; but I do say that, under the circumstances, there is a fair presumption that they may be so. Whenever this match is shot, the contest is sure to be a very close one; and if the Americans have ever so slight an advantage in the way of rifles, it will be quite sufficient to turn the scale against us. Of course, it may turn out, on investigation, that our rifles are as accurate as the Americans'; but, at any rate, this should be clearly ascertained before another match takes place; we shall then, in the event of another failure, be able to put the saddle on the "right horse," and know where to look for a remedy. Mr. Rigby thinks my suggestion, that both teams should be armed with the same rifle, would be difficult to carry into practice; perhaps so, as regards the Americans, but with us the matter ought to be easy. Surely, the maker of the selected arm would be able to loan a few rifles for the purposes of this match. Again, why do our team stick to the muzzle-loader? How can we possibly create much in the performance of an arm which, in a military sense, is as obsolete as night-watchmen and stage-coaches? In the event of a victory but little attention will be given to the matter by "foreign governments," unless it is gained with a breech-loader. Match small-bore shooting will not receive much permanent encouragement unless it is shown that some practical good may follow. Wimbledon itself would soon dwindle away if there was no other object than the mere pleasure of shooting. May I offer the following suggestions for consideration:"

[The italics are our own.] Another correspondent, a "Snider Man," writes:

"From all accounts I think it is clear that the days of the muzzle-loader are ended, and the Americans have solved the problem which our gunmakers have tried in vain to master. The extraordinary performance of Sergeant Glider in making sixteen consecutive bull's-eyes at 1,000 yards, with a Sharp's breech-loader, the first and the last of the series of eighteen shots being centres to the left, is worthy of notice; and these, too, with a perfectly strange rifle. Does it not follow that all our small-bore men must provide themselves with breech-loaders? From what I have gathered from the newspapers, and the evidence of competent eye-witnesses, I believe that our team had not yet learned the very A B C of organization; but although this was the case, it must not be imagined that all teams of English shooting men fail equally in elementary knowledge."

All we have to say is, that we think that Mr. Miller and "A Snider Man" are in the right direction. No one can be more conscious than ourselves of the advantages of drill and the American supremacy in team shooting. Such tout ensemble may be thirty per cent. in the achievement of success, but the other seventy per cent. is in having the right kind of a gun. When "A Snider Man" writes "How can we possibly create much in the performance of an arm, which, in a military sense, is as obsolete as night-watchmen and stage-coaches," this rifleman has hit it exactly. We predict quite a revolution at Wimbledon before long.

GLENN DRAPER RIFLE RANGE.—At Pelhamville, on the 17th of the Wright medal will be shot for. On the 29th subscription, and other matches, including a prize rifle. Matches to commence at one o'clock.

WOLVES IN THE OTTAWA VALLEY.—Writing from the Wakefield Mountains under date of October 15. Mr. Vennor says: "Wolves are at present abundant on the rocky hills and mountains of Templeton and Wakefield. Some thirty sheep have been killed within the past few days in the neighborhood of our quarters. In Portland Township and along the Priest's Creek hardly a night passes without the howl of the wolf being heard, and here also the sheep have been killed in large numbers. Mr. Pellissier, of Wakefield, informs me that two years ago an army of wolves came down along the valley of the creek just referred to, and destroyed everything in their track. Some two hundred sheep fell victims to these blood-thirsty creatures in Portland alone within a comparatively few days. In the Gore of Templeton these animals are just now particularly abundant, and this locality is barely fifteen miles from the East Templeton wharf on the Ottawa River,

Game Bag and Gun.

GAME IN SEASON IN NOVEMBER.

- Moose Alces, maculis. Elk or wapiti, Cervus canadensis. Hares, brown and gray. Wild turkey, Meleagris gallopavo. Woodcock, Philohela minor. Ruffed grouse, Bonasa umbellata. Plover, Charadrius. Godwit. Rails, Rallus virginianus. Snipe and Bay Birds. Cariboo, Tarandus rangifer. Red Deer, Cervulus virginianus. Squirrels, red, black and gray. Quail, Ophrys virginianus. Pinnated Grouse, Cupido Cupidonia Curlew, Numenius arquaria. Sandpeps, Tringa. Willets. Reed or Rice Birds, Dolichonyx orizivorus. Wild Duck.

"Bay Birds" generally, including various species of plover, sand piper, snipe, curlew, oyster-catcher, surf-bird, phalaropes, avocets etc., coming under the group Limacolia or Shore Birds.

MASSACHUSETTS.—Taunton, Nov. 9.—The birds in this neighborhood have been less scarce this fall than usual, but very wild. The woodcock frequent the dense swampy thickets of which there are so many about here. The oldest hunters and best shots complain that, unlike good little children, they are heard, but not seen. I saw, however, the other day a fine lot of birds which fell to the gun of a man who has had experience in every State from here to California, five plump woodcock and six ruffed grouse, fat and tender. Very few quail have been shot. The ducks are beginning to fly over the Middleboro ponds. A party of three got two canvas backs, fifteen black ducks, twelve coots and one wild goose in eighteen hours, and the season may be fairly said to have begun. There has been some good fishing during the summer in the ponds about here. I got nineteen black bass one day, all over a half-pound and under two pounds. A small boy of eight years, with a stick, a little twine and a hook and a worm, "playing catch bass" along the shore of Assawamsett Pond, is high hook with a five-pounder. Strings of 200 and 100 odd white perch in a few hours have been caught. H. D. J.

Wareham, Nov. 10.—Quail and partridges are unusually plenty hereabouts.

CONNECTICUT.—New Haven, Nov. 8.—A party of well-known business men, among whom were F. A. Gilbert, E. S. Kimberly, Charles Kimberly, Frank H. Hooker, H. S. Holcomb, George E. Spare and two or three gentlemen friends from New York, returned yesterday from a hunting excursion to Colchester. They brought back a dozen partridges, eighteen gray squirrels, twelve red squirrels, a fine lot of quail and three gray coons. A party of students shot a deer at Lake Saltenstall the other day. Possibly the animal had escaped from some collection, as deer are now rare visitors in this neighborhood.

Hartford, Nov. 9.—The Hartford Fox Club, consisting of Dr. David Cray, David Clark, J. G. Larc, E. C. Kellogg, Martin Bissel and George Downing, with their dogs, visited Talcott Mountain Monday morning, and before they returned, Dr. Cray had the good fortune to send a charge from his Parker gun into a fine fox, which was bagged and brought to town as a trophy.

RHODE ISLAND.—Newport, Nov. 7.—There are plenty of coots lying in our bay, and the shooting is good over at the Dumlings. Castle Hill, Dyer Island and Hope Isle are fine places for black ducks. No end of black ducks have been shot there. Some sport has been had shooting teal. Some snipe and yellow leg shooting has been had here, but think it is about over for the season.

NEW YORK.—Bloomingburgh, Nov. 10.—The shooting good. Had five sport this week. Mr. Wenzel, Mr. Junk of Hoboken and myself making a fine bag in two and one-half days' shooting; nine partridges, nineteen rabbits, ten quail and eleven woodcock. Woodcock are becoming scarce now; partridges plenty. MLO.

Cayuga, Nov. 9.—The ducks are scarce just at present, but cold weather is expected to bring great flocks of them to the lakes. The game constables are rigidly enforcing the law, and the batteries have been effectually baushed.

Glens Falls, Nov. 11.—Mr. A. B. Abbott, one of the managers of the Hallock Sportsmen's Association, was on Tuesday last elected Member of Assembly from Warren County, "by a large majority." A hundred or more geese passed over yesterday, bound south. Ruffed grouse have not been as plenty as usual this fall, owing to the forest fires at nesting time last spring. GLEN FALLS.

NEW JERSEY.—Kinsey's Ashley House, Barnegat Inlet, Nov. 6.—The shooting up to date has been fair. Black ducks very plenty; sprig-tails, until last few days, ditto; sheldrakes never more plentiful; broadbills are making their appearance in large numbers, and 80 per cent. young birds. The young growth of mussels in the channel affords them excellent food, and will afford us some fine shooting this fall, as every day increases the number. Your correspondent bagged 30 Saturday.

Very few geese yet, and I have only noticed some half dozen bunches of brant. This looks fashionable, as the old gunners say they are holding back for their young ones. We always notice the later the brant are the larger proportion of young birds, and consequently better shooting. B.

PENNSYLVANIA.—Dunn's, Nov. 6.—Two men here last week killed 21 ruffed grouse, 6 pigeons, 3 rabbits, 1 duck. Game is moderately plenty for this part of the country. P.

Centre.—Mr. Sam. Weis, of Centre township, according to the Sunbury Gazette, brought down three wild turkeys, and wounded a fourth, at one shot.

Greenville, Nov. 10.—Capt. Nelson, E. Christie, O. Luke and A. Bright and myself have just returned from a three-weeks' duck and chicken hunt in Western Ohio and Indiana, Huntsville, Ohio, and Syracuse, Indiana. Nelson and Luke shot four wild turkeys. Ruffed grouse are quite plenty in this section. A fine bag was brought in to-day by three of the club.

—The Wayne Democratic Press says: "The number of woodcock and partridge that have been shot by our sportsmen this fall exceeds that of any other year within a space of five years."

VA.—Belleville, Nottaway Co.—Our correspondent, Capt. John M. Taylor, writes us that he is off for a hunt, and has taken with him his setters, retrievers and foxbonds, so as to combine all the pleasures of the chase. Now, if quail, duck or deer come in Captain Taylor's way, he will be fully prepared.

TENNESSEE.—Nashville, Nov. 10.—Ducks are abundant above the reservoir and at Shelby's Pond.

LOUISIANA.—New Orleans, Nov. 6.—The Times devotes a column to the field sports about the city. We learn that no time has yet been fixed for the proposed hunting match between the New Orleans and Montgomery gun clubs. The hunt is to be confined to the marshes, bayous, lagoons and lakes for some ten miles around Lake Catharine, and limiting the varieties of game to be killed to the snipes, geese, brant, rails and the twenty odd varieties of ducks that are found in that region. It will, in short, chiefly be a grand match duck hunt.

Game is still scarce. The southward flight of ducks has been unusually backward this year. Game at this season was never before so scarce. This is an indication of a mild winter at the north. Crack wing shots, who are usually good for thirty to sixty ducks in a day at Lake Catharine find it difficult to bag fifty a dozen. The cold weather of the last few days, however, is bringing the flocks in, and shortly the shooting will doubtless be quite good. A great many snipe, in excellent condition, have recently been killed within the city limits, on the upper side of the new canal beyond the white bridge. Most of the ducks in the market come from Labrador, up the Jackson railroad. Quail and woodcock from the highlands of Taghapaec are scarce and high. Large rabbits from the Mississippi swamps, and small ones from the pine woods, are plentiful, as are also the delicious ground doves from across the lake. Reports from the Attakapas country represent game in that paradise for sportsmen as plentiful. Great bags of woodcock, snipe and ducks are being made, especially in Vermilion. There is good snipe shooting at Kennerlyne. Labrador is a noted place for ducks, particularly the plump French or mallard. Freniere is good for snipe and ducks as well as squirrels, while Manchac is a favorite resort for deer, interspersed and seasoned with adventure by an occasional wild cat, and, at rare intervals, black bear.

MICHIGAN.—Bellevue, Nov. 4.—Shot three woodcock yesterday, all plump and fat. Very late for the birds. We are to have a game protective club here soon.

KANSAS.—Rosedale, Nov. 7.—Quail plenty; pinnated grouse, woodcock and ducks scarce. T. D. J.

MINN.—Ashland.—Deer shooting is excellent this fall. C.

CALIFORNIA.—Braman Island and the lower half of Andrus Island are fairly overrun with ducks and geese, and sportsmen could not desire any better sport than can be there obtained.

San Francisco, Nov. 4.—Ducks are reported plenty in the San Joaquin Valley, and at other places in the interior, but are rather thinly scattered on the bays and marshes yet. In two weeks more they will probably be plenty at Alameda, Sausalito and San Bruno. D. S. L.

—They are doing a great deal of moonlight duck shooting in California. There can be no better plan to entirely exterminate the ducks. Some day their moonlight duck shooting will be all moonshine.

BLUE ROCKS OFF THE COAST OF IRELAND.—We have the following interesting facts from the well known pigeon shooter, Ira Paine, Esq.:

Perhaps it may interest some of your readers to know about shooting the true and original blue-rock as found in its wild state. Of course we all know that the blue rock is the swiftest of the pigeon family. But there is the greatest difference between the blue rock as it is bred in a domestic condition, and the wild one. The wild bird is rather bigger, has greater stretch of wings, and consequently a more rapid flight. The prepared skins of two wild blue rocks I sent to your office last week, will also show you some other slight differences. Off Queenstown, from ten to twenty miles, are cliffs rising up from the water side some fifty to two hundred feet. These cliffs are high and perpendicular. Just above high water, or where the surf might strike, there are clefts or crevices, small caves as it were, due to the decomposition of the stone. Just here is where the blue rocks breed. I took a boat, manned by four good oarsmen. The shooting is only possible when the wind is off shore; when it blows on, the risk of being swamped precludes all sport. You have to shoot from the boat, and approach these places where you can see two or three pigeons, then you strike the gunwale of boat with a stick, and away sky-rocket the birds. It won't do for me to say what kind of a shot I am, modestly would prevent that, but what with the teetering of the boat, and the lightning-like rapidity of the birds, it was as nice shooting as I ever saw. The speed of the birds was terrific. My companion was Mr. E. Hodder, the son of Dr. Hodder, of Toronto. We killed together some thirty-six birds. Mr. Hodder has killed as many as sixty on a favorable day. Save shooting birds over dogs, shooting blue rocks is the finest sport I know of.

—In reply to a correspondent who wrote to us complaining that he could not obtain the \$17 gun, advertised in our columns by Hyde, Shattuck & Co., that firm writes that they are now making only the twist barrel gun, price \$20.

—The editor of the Virginia City Chronicle is a noted Nimrod. On arriving at his favorite field, one day last week, and finding that some one had mischievously cut the mouth of the bag of live birds stored with his usual foresight under the buggy seat, he rushed back to his sanctum and penned and printed the following sarcastic item: "Live quail are being shipped to this point in considerable numbers. They are a necessity to every hunter's complete equipment."

TIT FOR TAT.—A farmer in Chester County, Pa., prosecuted three hunters for trespassing on his premises, for which they were fined. They retaliated on him by telling him they would give him three days' time to remove all the noxious weeds from off his farm, and, in case he did not, they would institute suit against him for a violation of a special law for Chester county, which is punishable with a fine of \$50. The farmer, taking the hint, has four men busily engaged in cutting and pulling weeds.

AN OLD PISTOL.—Mr. Otis Fellows, of Hornellsville, N. Y., has an old rifle, captured during Napoleon's campaign before Berlin. It is 33 inches long, the length of the barrel being but 18 inches. It is heavily made, and weighs 8 pounds. It carries a two ounce ball. There is also a pistol made by the celebrated gunsmith, "I. Patrick, Liverpool, maker to the Duke of Gloucester." It is said that it has been carried by the Duke and by Aaron Burr. He also has a powder horn which was carried in the French and Indian war, and in the Revolution.



There is no column of air to lift. The air inside of the barrel and the air outside is equal, and a perfect balance before the explosion takes place; and the explosion is so sudden that it doesn't give the air time to be shoved out of the barrel, but is compressed in the barrel and packs hard, and as it were, takes a hold of the barrel. Suppose, in place of air, the barrel was filled up with a wooden rod that would not compress? Then there would be a recoil the instant the expansion took place, as the wood will act on the common atmosphere and cause a repulse. All shooters know that if there is a plug of snow or any other substance gets in the muzzle of a gun it will burst when fired. A common wood plug stuck in the muzzle will burst a gun. Now, that shows the air packs hard in the barrel to cause a rupture rather than blow out the slight obstacle. The flash of powder is so much harder than the air at the muzzle, and expands like a cone, that it will throw all that pressure back on the shoulder.

Another correspondent says:

I will attempt a brief analysis to prove that the recoil does not take place after the missile leaves the muzzle of the gun. The strength of powder depends upon the space in which the gas is confined. When burned in its own volume powder exhibits its highest explosive energy, which is represented by nearly a cubic foot of gas compressed into a space of one cubic inch, and would create a pressure of about 30,000 lbs. per square inch with an ordinary charge of powder. As the space is increased the pressure is reduced in proportion to the number of volumes; and, in the space of the whole barrel, it is evident that the same amount of powder (by weight) must always create the same pressure. That is, when the missile escapes the muzzle the gas is driven into the air under exactly the same pressure, regardless of the weight of the missile and the grain of the powder. Now, assuming that the recoil occurs when the missile leaves the gun, and is caused by the resistance of the air, we should have the same recoil to the same charge (by weight) of powder under all circumstances. But such is not the case. It will be found that it depends largely upon the weight of the missile and the grain of the powder. As inertia acts directly as the mass, the impact of the gun will be to that of the missile as the weight of the missile is to that of the gun. Hence, all other things being equal, the heavier the gun and the lighter the missile the less is the recoil. The finer grade the powder is, the quicker it burns the higher the pressure is raised, the greater is the velocity of the missile, hence the greater recoil. Either shot or powder, when large charges are used, develops repercussion. The shot produces it not only by the increased weight, but by lying at greater length in the barrel the tendency to jam the pellets is increased. Powder produces it from the following cause: It has been found that sand is the most difficult substance to expel from a gun. Three diameters of sand, fired over an ordinary charge of powder, will inevitably burst a gun. This arises from the fact that the sand arches across the barrel and prevents the escape of the gas. Powder closely resembles sand, and arches in the same manner. When the arch forms, the pressure is raised until the arch is broken, when it produces a concussion in the barrel, and a flattening and dispersion of the shot. There are a few minor causes productive of recoil: 1. A space between wads, sometimes produced by the settling of the powder or the moving of the wad, 2. The striking back of a shell in its socket, or of the gun when loosely held. These are produced by concussion. The great object to be attained is to place the missile in a gradually increasing velocity from the breech to the muzzle, without jar or concussion, when the least recoil is produced with a given velocity.

CONICAL CHAMBERS.

EDITOR FOREST AND STREAM:

The communication in the FOREST AND STREAM signed "Edisto," Oct. 15th, in speaking of shells, says: "I believe the principle of the conical base to be correct. I think they require less powder than other shells, and the recoil of the gun does not appear so great."

The invention of the conical chamber in the breech pin of a gun was made in 1778 by a gun-maker in England named Nock. He searched in vain in books on mechanics, philosophy and gunnery, and made enquiries of many who should know, but have never been able to find an item, or hear any one confirm in any way the advantage that the inventor of the conical chamber claimed for his gun.

I know of several experiments that have been carefully tried with the conical base paper shells. The account of two recent trials are published in the Chicago Field, Sept. 22 and Oct. 20, showing results quite the reverse to those claimed by the manufacturers.

Should "Edisto" or any other gentleman wish to make a comparative test, I will send to the office of the FOREST AND STREAM one hundred or more paper shells made by the Union Metallic Cartridge Co., and sufficient powder and shot of any description required for the test, leaving only the conical base shells to be purchased. In that way the comparative merits of the conical or ordinary base for paper shells can be determined.

A. C. HOBBS, Bridgeport, Oct. 23, 1877.

FIRE-HUNTING DEER IN FLORIDA.—"Cedar Fly Rod," who spent last winter at Crystal River, Fla., writes: My guide—as every one else—I found, believed that the moon controlled the deer's action, just as it does the tides. "Too near the change of the moon" was his reason for anticipating little success in our projected fire-hunting. One bit of my experience may be of value to your readers. While on our way to the woods, Steve, my guide, stopped and called me to go ahead of the fire-pan and see how a cow's eyes looked. They were cow's eyes he had seen, but not being able to see more than one eye at first could not tell for a certainty whether it was a cow or not. I found the eyes of a very pale greenish color, and quite wide apart; whereas I afterward learned that a deer's eyes are of quite a reddish color, smaller and not far apart than the width of the palm of my hand. Steve said if a man only keeps cool and looks at the eyes closely, he need not make a mistake and shoot horses and cattle instead of deer. His rule is never to shoot at one eye unless he can see the body of the deer, which can be done when near enough to shoot, by raising the pan well above the head so as to throw the light well on to the deer.

A MISSOURI PIGEON ROOST.—The St. Louis Republican, Oct. 18, has this account of a big pigeon-roost on the Auglaize River, near Dodson's camp-ground, Camden County, Missouri:

It is an annual roost, and disturbs the quiet of the people of the section. The newspaper man finds it difficult to edit and print his paper in a pigeon-roost. Millions of pigeons cover the trees, and sometimes break them down. There is a frightful confusion of noises in this pigeon pandemonium. The crashing of limbs—the roaring of multitudinous pigeons, and the cracking of shot-guns sweeping the birds down by hundreds and thousands all night long. Nobody can sleep in such an uproar any more than they could amid the thunders of a raging battle. Besides this, there is a darkening of the air by the birds in their flight, which makes continual cloudy weather. But the people of this pigeon-roost are making the best of the

situation. The pigeon has become a leading article of commerce in the country. Last year over 100,000 pounds of pigeons were shipped from Stoutland, and the pigeon yield this year promises to be as good. But everything else stops in the pigeon-roosting season except the newspaper.

PIGEON MATCHES.

MASSACHUSETTS.—The Rutland Field Day.—Sportsmen of Worcester, Spencer, Oakham and Rutland held a glass ball tournament with the following results, forty shots each, in courses of ten, eighteen yards. Whole number of balls broken, 505—Worcester, 154; Spencer, 129; Oakham, 114; Rutland, 103.

Table with 4 columns: Club, Name, Score, and another Name/Score. Clubs include Worcester, Spencer, Rutland, and Oakham.

LONG ISLAND SHOOTING CLUB.—Dexter Park, L. I., Nov. 9.—Regular monthly sweepstakes. The first sweepstakes had seven contestants at \$2 each, making a total of \$14, which was divided into three parts. They shot at three birds each, 25 yards rise, 80 yards boundary, 1 1/2 oz. of shot, H and T traps; ties settled by miss and go out, the club rules to govern.

Table with 2 columns: Name and Score. Names include Gilderleeve, Byrre, Van Kirk, and Ward.

Same Day—Sweepstakes at \$2 each; five competitors, total \$10, divided into three parts, at three birds each, 25 yards rise, 80 yards boundary, and the other rules of the club to govern.

Table with 2 columns: Name and Score. Names include Gilderleeve, O'Brien, and Woods.

Same Day—Trial match, at five birds each. The same conditions to govern this as the other two.

Table with 2 columns: Name and Score. Names include Ward, Gilderleeve, and O'Brien.

NASSAU GUN CLUB.—Dexter Park, L. I., Nov. 12.—Monthly shoot of the Nassau Gun Club, for the Champion Silver Cup, shot for at five birds each, 25 yards rise, 80 yards boundary, 1 1/2 oz. of shot, H and T traps, the club rules to govern. This had seven competitors.

Table with 2 columns: Name and Score. Names include J. Abrams, H. Van Wicklen, Mr. Lott, and J. Van Wicklen.

Same Day—Sweepstakes of \$2 each, with twelve competitors, making a total of \$24, divided into two parts, at three birds each, 30 yards rise, and from five traps; ties miss and go out.

Table with 2 columns: Name and Score. Names include Mr. Dunham, Mr. Barronglis, J. Van Wicklen, H. Van Wicklen, and D. Van Wicklen.

Messrs. Lott, Smith and Ferguson missed all. Mr. J. Adams was referee; time of shooting, one hour forty minutes.

NEW JERSEY.—Bergen Point, Nov. 6.—The Bergen Point Amateur Gun Club held their first Gyro shoot-to-day. The following arc the scores, ten wings each:

Table with 2 columns: Name and Score. Names include Moore, C. H. Davis, Mellick, W. H. Day, Curry, and S. L. Davis.

KANSAS.—Rosedale Game Protection Club.—The last monthly shoot of this club resulted in the following score:

Table with 2 columns: Name and Score. Names include B. Rees, W. Bowen, D. S. Matthias, J. Hines, H. White, and T. D. Jones.

FOUNTAIN GUN CLUB.—Brooklyn Driving Park.—Monthly shoot for the championship medal. The birds were all strong flyers—young English blue-rocks.

Brown's dog shot gathered the birds. One of Helmstead's birds alighted in the grass about twenty yards from the traps, and shot started after the bird and caught it by leaping into the air. The dog brought the bird in, and the referee sang out "Dead bird!" At the moment the dog dropped the bird, and the pigeon, not having been struck by the shot aimed at it by Mr. Hempstead, soared high in the air and sailed over the boundary.

The handicap was as follows: Madison, C. Williams and Eddy, twenty-eight yards; De Fraine, Whitney, Miller, Captain F. H. Hanson, Dr. Race, Sheridan, MacMahon, Henderson, Walters and Helmstead, twenty-five yards; Mr. Williams, W. R. Hunter, W. Cleaver, Byrne and Edwards, twenty-one yards, and Goodwin, eighteen yards. The medal was won by E. H. Madison, who killed all his birds. Mr. Walton, of the Long Island Gun Club, acted as referee, and Mr. Gill scored.

Table with 2 columns: Name and Score. Names include Madison, Helmstead, Whitney, H. Miller, W. Cleaver, Eddy, Byrne, McMahon, C. Williams, W. R. Hunter, Walters, De Fraine, Henderson, Goodwin, Captain E. W. Hansen, M. Williams, Dr. Race, and Edwards.

† Killed within bounds by outsiders.

modal. The medal was first won in May last, and it becomes the property of the member winning it the greatest number of times during the year, and it is to be shot for by such members of the club that care to compete monthly. The medal has been held by C. Williams twice, Madison twice, and once, by Josephs, Cleaver and McMahon.

CAPTAIN BOGARDUS AT PROVIDENCE.—Captain Bogardus has been showing the Providence people how to shoot. His first exhibition was the breaking of 300 glass balls in 21 minutes and 43 seconds. His next feat was to break 300 balls in the extraordinary time of 19 min. 34 sec. In the first hundred he missed two balls, in the second hundred six, and in the third hundred, four—or twelve balls in the three hundred. He aimed at three hundred and sixteen, broke three hundred, missed 12 and the gun missed fire four times. When the extraordinary time of 19 min. and 34 sec. was announced by the official time-keeper every one was surprised, but none more so than the champion himself. He had beaten the best record he ever made.

A match between Bogardus and W. E. Horton, of Philadelphia, resulted in the following score:

Table with 2 columns: Name and Score. Names include Bogardus and Horton.

Sea and River Fishing.

FISH IN SEASON IN NOVEMBER.

Black Bass, Micropterus salmoides; Weakfish, Cynoscion regalis; M. nigricans; Bluefish, Pomatomus saltatrix; Mascalonge, Esoc nubilosus; Spanish Mackerel, Cybium maculatum; Pike or Pickerel, Esoc lucius; Yellow Perch, Perca flavescens; Sea Bass, Sclenopus ocellatus; Striped Bass, Roccus tinnectus; White Perch, Morone americana; Cero, Cybium regale; Bonito, Sarda pelagys; Kingfish, Icthyophaga nebulosus.

FISH IN MARKET.—Fish in good quantity. Codfish very plenty and caught off Long Island. Bass, 18 to 20 cents a pound; smelts, 20 cents; bluefish, 15; salmon, frozen, 35; mackerel, 18 to 25; white perch, 15; Spanish mackerel, 35; green turtle, 18; terrapin, \$15 a dozen; halibut, 18 cents a pound; haddock, 8 cents; codfish, 8 to 10; blackfish, 10 to 15; flounders, 10; lobsters, 10; sheeps head, 25; scollops, \$1.50 per gallon; soft clams, 30 cents per 100; white fish, 18; pickrel, 18; salmon trout, 15; hard crabs, \$3.50 a 100; blue-back trout, 50 cents a pound.

The first of the Rangeley Lake blue-back trout have come to market from Maine, and will be as usual at Mr. E. G. Blackford's stall in Fulton Market. It may be remembered that these peculiar fish have the honor of being the single exception to the general rule in regard to the close season, as far as trout are concerned; and sometimes amusing incidents have occurred on the part of the officers of State associations for the protection of game, who through excess of zeal have interfered with the selling of the blue-back trout at this time of the year.

NEW HAMPSHIRE.—Joshua Haynes, of Newbury, for taking six trout from a brook near Sunapee Lake, has been fine \$60 and costs, amounting in all to \$71.25.

MOVEMENTS OF THE FISHING FLEET.—The number of fishing arrivals reported at this port the past week has been 51, viz., 11 from the Banks, 8 from Georges, 1 from the Bay St. Lawrence, and 31 from Shore mackereling trips. Receipts—200,000 lbs. Bank cod, 100,000 lbs. Georges cod, 117,000 lbs. halibut, 70 bbls. Bay mackerel, about 1,750 bbls. Shore mackerel. The mackerel fleet have nearly all arrived, and the stock on the market will not be materially increased by later arrivals. Market firm. The Bank fleet bring in light fares, and the Georges fleet is small and meeting with indifferent success.

Prof. Spencer F. Baird, U. S. Commissioner of Fish and Fisheries, says that the failure of the fisheries on the North American coast is no exception. All parts of the world show a great falling off; most of all, in some parts of Europe, the almost total failure of the fisheries has been accompanied with great loss of life and property. The short catch of mackerel in our waters this season, and the poor quality, he cannot account for, as he has carefully examined the fishing grounds and finds mackerel food has been plenty all the season. He says we have no room to think another season may not be as favorable as any year.—Cape Ann Advertiser, Nov. 9.

RHODE ISLAND.—Newport, Nov. 7.—Bass and blue fishing is about over. Porgies are plenty again, and are very fat. Some fifteen or twenty steamers fishing out off our harbor, one steamer, a week last Tuesday, the catch was over 1,000 barrels.

FLORIDA.—Bay Port, Nov. 2.—This is one of the pleasantest situations on the Gulf Coast. The shoal water and outlying islands make it free from high seas or breakers, and a secure place for sail boats. There is an abundance of fish and fowl and accessible hunting grounds, and as there are some three or four northern families who take boarders visitors always leave this pleasant place with regret. Speaking of the abundance of game: two colored men went up to the old military field, some six miles up the river, and being away only a part of the day returned with seven wild turkeys. They saw three bears and some deer, but their indifferent gun failed to go off. Yesterday a colored man invited me to go up the river in his boat, I with my guns and he with his fish grains. The river abounds in mullet, sheaphead, snappers and redfish. He was very expert in spearing fish while I found sport in shooting. Passing along he espied an alligator on the bottom and said he was going to spear him, I begged him not to, but spoke too late. He plunged the spear into the "gator," which dashed into the middle of the river, making things lively and nearly upsetting the boat. I was glad when the rope broke, but my colored friend was exasperated at the loss of his spear, and returned home a sadder and a madder man. The orange crop, though very fine, is unusually late this year; the fruit as yet green and sour.

BEAUTIFUL FLIES.—John Haily, fly tyer, of 320 Henry street, New York, has just filled an order for us of a few dozen trout and salmon flies of the following patterns, selected as general working flies only: Salmon Flies.—Jack Scott, Silver Doctor, and Cork Robin. Trout Flies.—Dow Dunn, May Fly, Green Drake, Professor, Blue Professor, Couchman, Stone Fly, Black Gnat, Bibs, and Grizzly King.

This is the second time that Madison has won the Club

These are properly all the flies necessary for an angler's repertoire, though there are choice patterns highly prized by experts which will not be found in the stock of the tackle shops. We are very glad to be able to speak of these flies of Mr. Haily as very carefully and conscientiously prepared productions. Probably we have never possessed better. We know that any gentlemen ordering from him will receive full satisfaction. We always order our flies made in winter. The manufacturer has more leisure then, and can do his patterns better justice. In the spring every one applies at once, and arc not as liable to be so well served.

**ANOTHER BEAUTIFUL ROD.**—Verily, we are favored among sportsmen! Mr. Chas. F. Orvis, of Manchester, Vt., whose reputation as the maker of fine trout and bass rods has grown deservedly wide within the past three years, has kindly presented us with one of his finest trout rods. It is made of lancewood throughout, silver mounted, with metal reel seat, and whipped with silk throughout like split bamboo rods. These silk windings prevent the rod from breaking, and add much to its beauty. In some respects the rod before us is a novelty. It is a "combination" rod, but it is the only combination that we ever took kindly to. The first joint is about sixteen inches in length. This includes only that portion which is held in the hand, commonly designated as the bulge. Behind the bulge and near the extremity of the bit is the reel-plate, which holds the reel. Into the ferrule of this joint can be fitted at option either one of two sets of joints, making a complete rod, either for trout or bass fishing. In other words the angler is provided with two separate and distinct rods, with a handle common to both. Thus the uniform elasticity and play of each is preserved throughout; whereas in the old-fashioned combination the quality of one or all must be impaired. We understand that Mr. Orvis can manufacture rods of this kind to order for the low price of \$15, and we can most readily recommend them to the attention of any who find economy in expenditure to be a consideration, or who prefer wood to bamboo. For this gift so generously bestowed, the donor has our sincere thanks. It shall be put to no ignoble service.

**ORVIS'S SHOW CASE FOR FLY PATTERNS.**—We are gradually collecting at our office quite a museum of sporting materials. Sometime ago we were presented by the Hazard Powder Company with a magnificent mahogany case displaying the several kinds of powder manufactured by them, and more recently a similar case with the sizes of shot made by Tatham Bros. These are of great service to sportsmen selecting their ammunition for various kinds of game and calibres of gun. Of like service is a beautiful case presented to us last week by Mr. Charles F. Orvis, of Manchester, Vermont, displaying the several varieties of trout and bass flies made by him for the use of anglers. The name of each pattern is attached to it, so that the puzzling nomenclature of the profession is at once made intelligible to the tyro, and he has only to make his selection and send in his order according to the patterns desired, merely giving the name of such and size he may want. We think if all dealers would adopt the plan of hanging a similar show case in their shops they would not only facilitate the transaction of business and satisfy the purchaser, but largely increase their sales. Mr. Orvis' flies are very carefully tried, while the materials are selected with scrupulous care. That buyers are pleased with his work is shown by the fact that he is constantly filling orders from every State in the Union, however remote.

**A FISH SHOWER IN CANADA.**—The story runs somewhat as follows, and it all happened to a school-marm in Harwick Township: Having dismissed her school, she was walking to her boarding-house on or about the 8th of this month, when in the grass [Query—Is there grass in or around this part of the Dominion in November?] the lady came across another school of fish, this time in a pasture. Having been "brought up at the sea shore," where she first undoubtedly saw a fish, she took them to be rattlesnakes; then her marine ichthyological knowledge being of great use to her, she instantly knew the fish to be a kind of pickerel. [Query—Does the *esoc* frequent the sea shore?] Anyhow, after a few screams, being a thrifty young woman, she came to, and having gone back to a pail in the school-room, she collected a bucket-full of fish. "The circumstance," writes a paragraphist to the *Toronto Globe*, "is unique, apart from its strange surroundings." Now had the fish been smoked herrings or desiccated cod, the whole matter would have become quite plain; but a fish shower of pickerel in Canada, it must be confessed is puzzling. Perhaps the Provinces are jealous of the richness of the States. Since we have had a sausage storm in and around Cincinnati and a hash hurricane in Illinois, why should they not have a pickerel avalanche in Harwick Township?

**CURIOUS CAPTURE OF A SEAL.**—One Thomas Morris, while standing upon the high cliffs of Ramsey Island, Great Britain, perceived a seal asleep on the shore below. Descending, he succeeded in getting between the animal and the water before it awoke. As it made for the beach, he seized it with his hands, and after a long and severe struggle succeeded in tying a handkerchief around its flippers. It proved a very troublesome pet, snapping at every one who approached it, but curiously enough is far more incensed at the sight of its captor than any other person. The cliff where Morris descended seems almost impracticable, and how the man got down, and still more how he got up, carrying a struggling and snapping seal is a mystery.

**COD FISHING IN ICELAND.**—*Chambers Journal* gives an interesting account of the French fisheries for cod in Iceland:

The fishermen, it seems, are sometimes rather impressed than serve as volunteers. Most of the men come from Brittany. The duties when fishing are very heavy, and the accommodations for the men miserable.

In a cod fishing craft it is necessary to have as many men as possible, and twenty are usually taken. The arrangements are woefully insufficient. There are only sleeping-places for a third; one sailor resting while two are fishing. Thus, after six hours spent on deck without shelter from rain, wind and snow, the waves washing over and the heavy line in their hands, the men go down stiff with cold and worn out with fatigue. Yet they must lie, dressed as they are, on a hard, damp mattress; and frequently the clothes are never changed from the beginning to the end of the voyage. After five voyages a man is authorized to take the command, and though styled captain, he is nothing more than the head of the fishermen. It is his work to keep the account of the number of cod caught; the sailors taking care, as they hook a fish, to cut out its tongue and place it in a bag hung to their belt. When the hour of repose comes the tongues are taken to the captain, and about ten centimes is allowed for each. The second in office is only chosen as being the most skillful with his line; then comes the man who cuts off the cods' heads, opens and prepares the fish for the salter; and lastly the one who lays them in the barrels and closes them for sale. Those ships that have chosen their position for fishing take down their sails and lie as quietly at anchor as the wind will permit, the men standing in a close line at the side of the vessel. They are clothed from head to foot in knitted or flannel garments, with waterproof capes and hats. A petticoat of strong linen is tied around the waist, descending below the knees, and to preserve the feet from wet they wear woolen stockings and waterproof boots. Thick woolen gloves, lined with leather, save their hands from the injury of constant friction from the heavy line. The whole forms a curious picture of ragged, patched, greasy, well-traried habiliments, which a comic pencil might rejoice to portray. The men, indifferent to their appearance, seek only to be saved from moisture. The lines they use are necessarily very heavy to bring on board a fish weighing, say forty pounds. There are two hooks baited with the entrails of fish; but the voracity of the cod is such that it is scarcely necessary to be too particular as to the lure. Thus the men stand for six hours consecutively, gently moving the line, and when a shake indicates a catch, lifting the heavy weight on board. The fatigue is very great, and much of it is pure loss, as the line too often brings up another fish, called the fetan, which, though very good to eat does not bear preserving. The sailors hold this interloper in extreme aversion, as it often breaks the line by its weight, and gives them much trouble to heave on board.

**THE USE OF PIGEONS IN THE FISHERY BUSINESS.**—We have already spoken of the employment of carrier pigeons in the fishing industry. From the *Fishing Gazette* we take the following:

The experiment which was tried last year of employing carrier-pigeons for the purpose of bringing early intelligence each morning from the fishing-ground of the result of the night's labor, is again being resorted to this season, and with the most satisfactory results. One of the birds is taken out in each boat in the afternoon, and after the nets have been hauled on the following morning and the extent of the catch ascertained, the pigeon is despatched with a small piece of parchment tied round its neck, containing information as to the number of crabs on board, the position of the boat, the direction of the wind, and the prospects of the return journey, etc. If there is not wind to take the boat back, or if it is blowing in an unfavorable direction, a request is made for a tug, and from the particulars given as to the bearings of the craft, she can be picked up easily by the steamer. The other advantages of the system are that, when the curers are apprised of the quantity of herrings they may expect, they can make preparations for expediting the delivering and curing of the fish. Most of the pigeons belong to Messrs. Moir & Son, Aberdeen. When let off from the boats, the birds invariably circle three times round overhead, and then sweep away toward the land with great rapidity, generally flying at the rate of about a mile per minute. Two superior birds in Messrs. Moir's possession have occasionally come a distance of twenty or twenty-five miles in as many minutes; and on Tuesday one of these pigeons came home sixteen miles in the same number of minutes. Another of Messrs. Moir's pigeons flew on board the *Heatherbell* on Tuesday afternoon off the Girdleness, bearing a slip of paper containing the intelligence that the boat from which it had been despatched at 11:54 had a cargo of twenty-five barrels of herrings. The pigeons require very little training, and soon know where to land with their message. A cot has been fitted up on the roof of Messrs. Moir's premises at the quay for the accommodation of the birds, and they invariably alight there on their return from sea.

#### CONDITIONS FOR GOOD BASS FISHING.

EDITOR FOREST AND STREAM:

If sportsmen would give the practical features of their knowledge, experience or observation, it would add greatly to the value and interest of their writings. One may tell of glorious sports in fishing for black bass, but how much more acceptable it would be if the conditions under which success was achieved, or which led to success, were given. The time of year, a description of the day, the temperature, direction of wind, the sky, conditions of water, stage of moon, time of day, kind of bait, depth of fishing, kind of tackle, and any observations that may have been made. Here I will mention some items of experience in regard to bait. I have learned by repeated trials and careful notice that there is no minnow, of all the kinds to which I have had access, so good for black bass as the shiner; unless I except one that resembles it in color, but which is harder and lives longer on the hook. I have heard many assertions adverse to this from persons who ought to know, and whose assertions proved only a hindrance to me in arriving at the truth. A minnow marred or disfigured in the slightest degree will be refused when a perfect one will be taken. I am well aware that when

bass are plenty and hungry they will take almost any kind of a minnow or even a piece of one, but when they are shy and hard to tempt the above remarks will apply. One frosty October day, when bass were biting freely and continuously, I discovered that when I baited with a very small minnow, not more than an inch in length—so small indeed that they were regarded as useless until a prospective scarcity of bait induced a trial of them—I took the largest sized bass, weighing from two to two and a half pounds, while with minnows from three to four inches in length I took them weighing generally less than a pound. This occurred under circumstances admitting of so many trials as to prevent the conclusion that it was accidental. Since then I have not noticed the same thing, but my opportunities have never since been so good. This is contrary to all that I ever heard from fishermen on the subject, they always advising large minnows for large bass. I should like to be informed if any one else has had similar experience.

SPLASHER.

#### THE ROUTE TO THE UPPER MAGALLOWAY.

JAMAICA PLAIN, NOV. 9, 1871.

EDITOR FOREST AND STREAM:

Having just returned from the Moosehead Lake Region, where I have been busy on my forthcoming "Guide to Moosehead Lake and Northern Maine," I naturally, as soon as I could find time, looked over the file of your valuable journal that had collected during my absence. In the number dated Oct. 18, I found an article headed "The Upper Magalloway River," some statements in which I do not agree with. The writer, speaking of the route to the Magalloway River and Parmachenee Lake, via Upton, Me., spoken of in my "Richardson and Rangeley Lakes Illustrated," states the conveyance between Upton and Errol Dam to be by stage. This statement is wrong, as all traveling that route take the steamer *Diamond* at Upton, in the morning, after arrival by stage the night before, and have a delightful sail to Wentworth's Location, touching at Errol Dam on the way. If "W. C. E." will refer to page 72 of the *Guide*, he will find stated in the book that the conveyance is by steamer, and not by stage, as he wrongly quotes. He will also find the route by way of North Stratford and Colebrook, fully described on pages 62 and 67, chapters 14 and 15. I have been both ways, and the Upton route is certainly the easiest and cheapest. The scenery via Colebrook is undoubtedly the finest, as by that route one passes through Dixville Notch. I would recommend that to make a pleasant trip one should go by Upton, and return via Colebrook and North Stratford. The distance from North Stratford to Wentworth's Location, via Colebrook, is 49 miles, and even if you take the steamer at Errol Dam you have 34 miles of staging against 26 miles via Upton. The stage from Bethel to Upton reaches the Lake House at the same time at night as the stage from North Stratford reaches Colebrook, although the distance is 13 miles more. At the Lake House one can sleep until half-past six the next morning, and then be in time for the boat. They do not have to turn out at half-past four, as "W. C. E." says he did at Colebrook.

But I have said enough on this matter, as it is immaterial to me which route sportsmen take to Parmachenee. They will find them all fully described in my "Richardson and Rangeley Lakes Illustrated," and can choose for themselves.

One last correction in regard to the boat on Lake Umbagog. In June, August and September it makes four daily trips per week, instead of three, as "W. C. E." states, and in July only three trips per week.

In regard to the trout in the Magalloway, I would state that they run small on that river, on Parmachenee Lake and the ponds in the vicinity, as compared with those in the Richardson and Rangeley Lakes. A four-pound trout is a big fish for Parmachenee Lake and that vicinity.

The small pond in front of Flint's Camp two years ago contained nothing but small trout, although Mr. Flint has since stocked it with larger fish. But I think it would trouble "W. C. E." to prove that a six-pound trout ever came out of it, or ever was in it, as six-pound trout in that immediate vicinity are as scarce as black flies in January.

In closing, I would suggest to "W. C. E." that the next time he visits the Magalloway, he had better try the Upton route, for if he has never been that way he will find it offers some advantages over the other.

CHARLES A. J. FARRAR.

#### HEXAGONAL SPLIT BAMBOO RODS.

EDITOR FOREST AND STREAM:

In your issue of last week, in answer to a correspondent from Leesburg, asking the relative merits of the round and hexagonal split bamboo rods, we observed you give judgment in favor of the former. As our experience as manufacturers is directly opposed to the conclusions you draw, may we, if it will not be considered a presumption on our part, be allowed to state wherein we differ from you, and the reason for our opinion?

You are undoubtedly correct "that the value of a rod depends on its mechanical construction, materials and its working power." You state that "the hexagonal is the easier made, and, therefore, about forty (40) per cent. cheaper."

Our experience is, that it costs as much to make the hexagonal as the round. To make the six parts forming the joint exactly of the same size, so that when put together they will be perfectly fitted, requiring no outside reduction (which would remove a part of the enamel) is a very fine job, and one that only a highly skilled workman can accomplish. The workman who can make a perfect hexagonal joint can make the round equally as well, but there is more skill required in the former than the latter. In the former, if the parts are not closely fitted, any imperfection is readily detected; while in the latter, as the enamel, in part, is necessarily removed to make it round, and the grain of the bamboo exposed, it is a difficult matter to distinguish a defect in fitting from the wood itself, and a poorly constructed rod may appear as well made as the best.

Again, as it is universally admitted that the essentials of a good split bamboo rod—its strength, elasticity and durability, are mainly due to the enamel, it follows, that removing any part of it lessens the value in all these vital points. You state that "the most experienced workman can make the round joint entirely of enamel." That it is an impossibility to make a round joint and preserve even the larger part of the enamel, we know to be the case. The natural bamboo, as you are aware, is hollow; to make from this a solid joint in six strips, suitable for a trout or salmon rod, the original circle of the bamboo is so much reduced that the strips, when placed together, do not form a "round" but a hexagon. Now, to form this into a "round," a very great part of the enamel has to be removed. To show this plainly, if you will draw a hexagon figure, and from its centre describe a circle covering its sides, you will see at a glance the large portion of the enamel destroyed and how impossible it is to make a "round" joint and yet preserve the enamel intact. As the hexagonal form preserves all the enamel, it follows that this is the strongest form in which to make the rod.

As to the "working" of the two forms, the hexagonal having all the enamel and no weak points, gives a uniform swing throughout, while in the "round," from its want of uniformity, the action is unequal.





A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY,  
FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS,  
AND THE INDOLENT IN MEN AND WOMEN OF A HEALTHY INTEREST  
IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

*Forest and Stream Publishing Company.*

—AT—

No. 111 (old No. 103) FULFON STREET, NEW YORK.

[POST OFFICE BOX 2832.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

## Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents.  
Special rates for three, six and twelve months. Notices in editorial  
columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money  
or they will not be inserted.No advertisement or business notice of an immoral character will be  
received on any terms.\* \* \* Any publisher inserting our prospectus as above one time, with  
brief editorial notice calling attention thereto, and sending marked copy  
to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, NOVEMBER 15, 1877.

## To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HULLOCK, Editor.

T. C. BANKS,  
Business Manager.S. H. TURRILL, Chicago,  
Western Manager.

HOW WE SUFFER AND THE REASON WHY.—Messrs. Dudley &amp; Co., of Poughkeepsie, has sent us the following very complimentary sockdolager:

POUGHKEEPSIE FOUNDRY, POUGHKEEPSIE, N. Y., Nov. 9, 1877.

EDITOR FOREST AND STREAM:

We wish you to discontinue our advertisement of the "Dudley Pocket Cartridge Loader" till further advised, for we have orders now on our books (and most of them paid for in advance) that will take us three weeks to fill. If any one doubts the value of an ad. in the F. and S., we do not. Yours,  
DUDLEY & CO.

P. S.—We will notify you when to resume our ad.

—Professor Baird's sojourn in Halifax this summer, where he upheld the interests of the American fisheries, seems to have given new health and vigor to the Secretary of the Smithsonian Institution. We are very glad to acknowledge our indebtedness to Professor Baird for many favors.

A ROBBERY.—We are sorry to learn that the store of Mr. J. F. Marsters, of Brooklyn, has been robbed of a large amount of valuable cutlery. Mr. Marsters still advertises in our columns, and we are quite sure that the thieves did not make a clean sweep.

SALE OF OLD ARMS, ANTIQUE FOWLING-PIECES, ETC.—We would call particular attention to the finest collection of ancient arms and armor ever offered for sale in this city. The Cognat collection will be disposed of at auction by the Messrs. Leavitt at their Art Rooms, 817 Broadway, on Nov. 17th and 19th, at 3 o'clock. This museum of arms, it must be remembered, was one of the most prominent features of the Metropolitan Museum of Arts, having been exhibited there for the last two years. Here may be found weapons used by the Crusaders, genuine Toledo blades, and others which preceded the use of gunpowder—crossbows, the rare halberds, the carefully wrought steel weapons of Spain and Turkey.

To the sportsman this collection offers the greatest inducements. In it may be seen early guns used for fowling-pieces, with bird bolts, and the lighter crossbows that Florentine ladies went hunting with. There is a collection of powder flasks which is unique. From a personal study of the collection we can safely state that the authenticity of each piece is positive and beyond a doubt. This sale should claim the attention of all gentlemen sportsmen and collectors of arms.

THE NATIONAL RIFLE ASSOCIATION  
AND THOSE WHO DO NOT BELIEVE  
IN IT.

IT would naturally be supposed that the attention of the Army and Navy Journal would be called to the mistake made, upon which its attack on the existence of the National Rifle Association was based. We all make errors at times, and should freely admit when such blunders occur. Nevertheless, the Army and Navy Journal goes right ahead and devotes two columns to an elaborate endeavor attempting to demonstrate that the "Creedmoor Association" and the "N. R. A. of New York" is in no way or sense national, but "represents only the interests of New York City and Brooklyn, with so much of the State Militia as is covered by the ex-officio directors."

Truly the gentlemen of the National Rifle Association may well cry "Save us from our friends." We fancy that *The Turf, Field and Farm* is correct when it states that the present attack proceeds from parties who "had recognized the association for years and have always arrived at controlling its councils, and that the sudden change proceeds from a failure to dictate its course." It is difficult to explain the course of the Army and Navy Journal upon any other hypothesis. When the editor of that journal was the president of the National Rifle Association that paper was recognized as its organ. The latest information on rifle matters was always to be found in its columns, and it often spoke by authority. This position might have been retained by a little enterprise, but that is a quality for which journalists know that paper is not celebrated. While other newspapers have paid special attention to rifle practice the Army and Navy Journal has gradually neglected it since its editor retired from the presidency of the N. R. A., and its dicta, although oracular in form, have for some time been of no possible authority with riflemen. Having therefore abdicated its right to speak for riflemen it is not extraordinary that those who do understand their wants and wishes should decline to be guided by its advice.

A glance at the files of the Army and Navy Journal will show that no paper has been more prominent in asserting the national character of the Rifle Association. At the first conception of the association it stated that it was to be national in its character, as its name implied, regularly "incorporated, etc." In the address which was issued at the same time under Col. Church's auspices the object of the association was stated to be "to secure the adoption of rifle practice by national guards of this State through the military authorities, and to secure similar action in other States." In June 1873, the Army and Navy Journal, when it described the opening of Creedmoor, stated in an editorial "that the association is established on a firm basis and upon a scale which justly entitled it to the name National." Last fall in a discussion with the Pacific Life as to who was entitled to the credit of being the founder of the "National Rifle Association of America," the journal in claiming the credit for itself and Col. Church, (which was no more than their just due) asserted that the association was formed by them "as a National Rifle Association on American principles." It seems quite extraordinary in view of these repeated expressions that the Army and Navy Journal cannot now speak of the N. R. A. except with the addition of New York, or as the Creedmoor Association. This is scarcely dignified on the part of the journal in question, and what its object may be is quite a mystery. Its reputation once in the newspaper world was due more than anything else to its persistent efforts to establish a National Rifle Association: If it should now succeed in reducing this association to the level of a local club, as it now seeks to do, its own reputation will be destroyed. But this is its own affair. We would advise the N. R. A. not to unduly exercise themselves over this matter. The world is wide and time blunts the harshest censure. The public will estimate whether it is, or is not, national by the work it performs, not by what it calls itself, or others may call it. No one can deny that from its inception to the present time (and much of it was due to Col. Church) the National Rifle Association has been national in its aim and work, and has honorably and creditably filled its mission by representing the riflemen of America. So far no dissatisfaction has been expressed even by those who oppose it. The steps it took last year in paying the expenses for places upon the American team was a movement in the right direction toward enabling the riflemen of the West and South to secure representation, and this action will certainly be followed in the future. Its exertions at this present time to secure and establish rifle practice in the different States is also of a national character.

So long then as the N. R. A. proceeds in the course which it has entered upon and labors to advance rifle practice throughout the union it may be certain that it will be looked up to as the representative body it rightly claims to be. It certainly cannot be deprived of this character by adverse criticisms based upon the utterance of a resolution which it never passed and which, even had the association passed, the FOREST AND STREAM AND ROD AND GUN believes would have been perfectly proper.

MAP OF MOOSEHEAD LAKE AND VICINITY.—Mr. C. A. J. Farrar, of Boston, has just completed his map of Moosehead Lake and Vicinity. The map is bound in convenient form in cloth covers, and will prove a valuable aid to the tourists in the Maine woods.

## SOME GOVERNMENT PUBLICATIONS.

CERTAINLY we in America have every reason to be thankful that our government preserves so wise and so liberal an attitude toward science and its achievements. No year within the past decade has gone by without some important contribution, through government aid, to our knowledge of the geology, zoology or topography of our country. And, indeed, for many years back expeditions have been sent out in all directions, equipped at great expense, furnished with the best instruments that money could buy, and accompanied by men trained for work in the field, to gather in the scientific treasures so abundantly scattered throughout the land. It is true that at first these expeditions were sent out only for a practical (sic) purpose; but as the years rolled on, and the importance of scientific research came to be more and more appreciated, the investigations were carried on for their own sake. Of the immense advantages which are constantly accruing to all classes of people through the progress of these government surveys it is needless to speak at length. The good service which Dr. Hayden's Entomological Commission has rendered in crushing out the grasshopper in several States will be remembered and gratefully acknowledged by all agriculturalists; and the advice and assistance of the trained geologists and mineralogists connected with these surveys is constantly sought for by miners in new countries.

Of the publications which have been sent forth from the government printing office within the past few years, the most noteworthy are those issued in connection with the two surveys under the control of the Interior Department, in charge of Dr. F. V. Hayden and Major Powell respectively, and the two under Lieut. G. M. Wheeler, U. S. Engineers, and Mr. Clarence King, which are published by the War Department. Among the names of the contributors to the volumes issued by these surveys will be found those of all the most eminent specialists in this country, besides those of many of the most noted scientific men of Europe—Leidy, Marsh, Meek, White, Cope and Scudder in paleontology; Allen, Coles, Yarrow, Henshaw, Packard and Thomas in zoology, who, with geologists, botanists and miscellaneous writers too numerous to mention, make up a company of scientific men of whom we, as Americans, have certainly every right to feel proud.

The publications of Dr. Hayden's survey extend back the farthest and are the most numerous of any of the scientific publications now being issued by the government. So far as published, they consist of no less than eight Annual Reports, supplemented by a number of volumes of Bulletins and Miscellaneous Publications. Then, too, Dr. Hayden, with a wisdom and liberality as far-seeing as it is enlightened, has enlisted in the service of his survey many of our leading specialists, who have undertaken to prepare for him a number of superb monographs on various subjects, which are to be printed under the direction of the geologist in charge. Some of these are still in course of preparation, but there have already been issued the following works: Prof. Leidy's Extinct Vertebrate Fauna of the Western Territories; Prof. Cope's Cretaceous Vertebrata; Prof. Thomas' Synopsis of the North American Arctidæ; Prof. Lesquereux's Cretaceous Flora; the late Prof. Meek's Cretaceous Invertebrata; Prof. Packard's Geometrid Moths, and a Monograph of the North American Rodentia, by Dr. Coles and Prof. J. A. Allen. All of these works are quartos, and all are finely illustrated with lithographic plates. While most of these magnificent volumes are interesting only to the specialist, the Monograph of the Rodentia is to be mentioned as an exception to this rule; for there is much in it relating to the habits of the hares, squirrels, beaver, etc., which will be delightful reading for the sportsman. But, after all, it is hardly necessary to say this, for are not the names of Coles and Allen well known to all the readers of FOREST AND STREAM? The miscellaneous publications of this survey are many of them very fascinating, and are, besides, of vast practical importance. They include such volumes as Dr. Coles' Birds of the Northwest and Fur-bearing Animals; Matthews' Hidatsa Indians; the Reports of the Entomological Commission, etc. Here, too, are to be placed the many hundred photographs which have been secured of scenery, ruins, and of the different types of Indians, of the plains and mountains.

Of Lieut. Wheeler's report, only three volumes have as yet made their appearance, these being devoted to geology, zoology and paleontology. That on zoology—the one in which our readers will be most interested—is a grand work of over 1,000 pages, and is illustrated by forty-five beautifully colored plates. The mammals are ably treated by Dr. Coles and Dr. Yarrow; the birds by Mr. Henshaw; the reptiles and Batrachians by Coles and Yarrow, and the fishes by Yarrow and Cope. Yarrow, Verrill, Uhler and others pronounce upon the invertebrates, while the whole charge of the volume devolved on Dr. Yarrow, who has most successfully fulfilled the arduous duties in connection with its preparation. Issued by the same survey are a series of beautifully engraved maps, which are ultimately to cover the whole of the territory assigned to it for examination.

Of the volumes of Mr. King's survey, it need only be said that they are in every way creditable to those who have had them in charge. The last volume issued is by Prof. Ferdinand Ziskel, and treats of the rocks collected during the progress of the survey. Of this work a recent *Nature* says: "Mr. King may be congratulated upon the judgment he has shown in the allocation of his materials. He has enriched his

official publications with the most important contribution yet made to the petrography of America."

The country through which Major Powell has passed in his exploration of the Colorado River furnishes a constant succession of the most strangely beautiful scenery. Exploration here, however, is no light task, for the travel by boats down the swiftly flowing stream, through the deep canyons and over hurrying rapids, is fraught with great danger. The toilsome experiences of the journey are well told of in the reports of the survey and are often of thrilling interest, while the scientific results of the exploration will, when published, be of extraordinary value. Major Powell has devoted much time to the study of the ethnography of the various tribes with which he has come in contact, and the material which he has thus acquired will be elaborated in a future report. Dr. H. C. Yarrow, it is known, is preparing a paper on the Burial Customs of the North American Indians, which will appear in the publications under the charge of Major Powell. Dr. Yarrow has had a vast amount of experience in investigating these customs among the Indians of the Southwest, and his paper will be anxiously looked for by ethnologists.

It is impossible, in the limited space at our command, to attempt to give credit for all the good work that has been done by the various scientific men who have been connected with the explorations to which we have referred. We have therefore been obliged to content ourselves with naming only a few of the many who have assisted in the accomplishing of the great results which have been already attained. Let us hope that the work will continue to go forward in the future as bravely as it has in the past, and that the government may continue to do its part toward helping it on.

A SPORTSMAN'S REGISTRATION BOOK.

WE are indebted to a correspondent of the FOREST AND STREAM AND ROD AND GUN for what we deem to be a most excellent suggestion. We might as well remark right here how fully we appreciate the kindness of the many friends of the paper. We are ready to acknowledge the benefit we have derived from the numerous counsels we have received. A proposition is made that we shall keep in the office of this journal a regular book, in which parties who intend visiting any portion of the United States or Canada, for the purpose of shooting or fishing, may record their names and their addresses. Our correspondent says: "A man wanting to go to any particular locality and desiring company might enter his name, address and reference, with the locality he proposes visiting and the time he purposes to be absent. Thus any one who may desire company may obtain information that might not be attainable otherwise, without the expenditure of much time and trouble. There are doubtless, in this vicinity, many sportsmen who have few, if any, acquaintances, who would be glad to give some small fee to pay for the time and trouble of keeping such a book." As the time and trouble of the FOREST AND STREAM AND ROD AND GUN are quite at the disposal of the public, we shall be perfectly willing to open such a book without any remuneration. We believe such a plan as proposed would be of great service to sportsmen generally. Few days occur that we do not receive either letters or personal inquiries in regard to the whereabouts of gentlemen. As far as lies in our power we keep track of their peregrination. It is often difficult to follow their trails. We would not propose, unless parties should wish it, to give in print their names and destinations. Such a book as we are now ready to open at the office of the FOREST AND STREAM AND ROD AND GUN would be of a strictly private character, and only accessible to such gentlemen as are either known to us or could bring letters of introduction to the editor. To our numerous English constituency, who take long journeys West for the sake of sport, such a book of reference, informing them of the movements of their friends, might be of the most signal service.

We certainly think, then, that a trial of this method of registration might be of great service, and have opened this day at our office, No. 111 Fulton street, New York, a book for the purposes designated.

It is becoming for us to say also, in this connection, that we have very materially assisted in designating routes and programmes of sport for very many of the foreign gentlemen who have visited America during the past four years. Included among whom are Rosebury Dunraven, J. Shafto Hawks, the Turkish Consul-General at Boston, the members of the Irish and British Rifle Teams, and scores of others. The citizens of our own country who have sought and received our personal services are very numerous, and we feel thankful that the thirty years of a somewhat erratic life have not been wholly thrown away, and that the results of many wanderings over all parts of the continent can now be put to practical use. We say this modestly: we can no longer reproach ourselves for a misspent life.

CONGRATULATIONS.—We extend our hearty congratulations to the New York State Sportsmen's Associations, and to the sportsmen of New York on the excellent representation their interests are likely to receive in the coming session of the State Senate. Senator Pierce of Buffalo, the President of the Association, and Senator Wagstaff of Long Island, one of the standing committee were both on the successful ticket at the late election. We profess to know nothing of the political views of these gentlemen, but we are assured that the interests of game protection will be worthily represented at Albany.

DISAGREEABLE RESTRICTIONS.

INTERESTING TO SPORTSMEN WHO SHOOT ON THE ST. LAWRENCE.

Mr. John R. Wiltzie, of Newburgh, in this State, president of the Hudson River Association for the Protection of Fish and Game, has called our attention to what we consider a very rigid interpretation of the Canadian laws, which, being quite important to our American sportsmen, we give somewhat in detail. Of course, from his position as president of an association for the protection of game, Mr. Wiltzie has the utmost respect for the laws, whether at home or abroad, and is ready to abide by them.

Toward the close of last month, Mr. Wiltzie, being the guest of H. H. Warner, Esq., of Rochester, on board of his steam yacht Olive, crossed over from Clayton, N. Y., to Kingston, Canada. The object of these gentlemen in visiting this particular part of the St. Lawrence, was to shoot ducks. Fully aware that they might be subjected to some inconveniences from the authorities if they shot game without permission, they were only too desirous to put themselves entirely in the right. Treated somewhat curtly by the Custom House officers at Kingston, by payment of \$1.50 they obtained the following permission, an accurate copy of which we give:

The steam yacht Olive, with a party of two gentlemen, have reported to me, and have the privilege of shooting on Canadian waters for two weeks, on condition that she (the yacht, presumably,) reports to an officer in and out every night.  
A. MACALISTER,  
[Seal of the Port of Kingston.] Surveyor of Customs.

Now, there is no possible objection to having sportsmen register their names, and even to pay for the privilege of hunting in Canada, but the final clause, the necessity to report the vessel "in and out every day," would be not only irksome, but often impossible; as, in the case of these gentlemen, sometimes the weather was so bad that after a day's shooting it was impossible to return and report at Kingston. It must be remembered that in case of non-compliance with these arbitrary orders, a penalty something like seizure follows, and the giving of bonds. Mr. Wiltzie, who is well known as a sportsman in this section of the Province of Ontario, informs us that he has been shooting there for fifteen years, and never knew such restrictions enforced before.

Somewhat astonished at the course of the Canadian officials, Mr. Wiltzie addressed a letter to the Collector of Kingston, and had the following answer:

CUSTOM HOUSE, KINGSTON, ONT., Oct. 20, 1877.

Sir—In reply to yours of the 10th inst., as to a new law supposed to be in force in this Dominion, making it necessary for persons from the United States to pass through the nearest Custom House and enter his boats, guns, etc., I beg to state that there is no new law in force, the notice referred to having been issued in consequence of American sportsmen imagining that they can come and go as if on their own side of the line.

If Canadian sportsmen or fishermen enter American waters to shoot or fish they are required to report at the nearest Custom House, and, in default, are liable to have their property seized and subject themselves to a fine. In fact, cases have occurred in which their boats and goods have been seized for simply trolling in American waters.

By XL Victoria, Chapter X, Section 10—All goods imported into Canada, whether by sea, land, coastwise, or by inland navigation, must be brought in at a port of entry where a Custom House is lawfully established.

By Section 11 of the same act—If not so brought in and a permit given, such goods shall be forfeited with the vessel, etc., and the master or person in charge incurs a penalty of \$500.

By Section 2 of the said act, called the "Interpretation Clause," the word "vessel" means any ship, vessel or boat of any kind.

With reference to the manner in which these acts are carried out on both sides, I further state:

That on the American side I have always found a most liberal construction placed thereon, provided a report is made by a responsible person and a permit obtained;

That on the Canadian side the same liberal interpretation is also placed thereon;

That owing to the supposition of American sportsmen they can come in here as and when they please, the notice referred to has been issued to prevent misunderstanding, and to compel those who wish for a privilege to obtain it in a lawful manner.

Your most obedient servant, W. R. MENGAYE, Collector.  
J. R. WILTZIE, Esq., 48 Second street, Newburgh, N. Y.

Possibly some slight exceptions might be taken at the conclusion of Mr. Mengaye's letter. The Canadian officials may look at the visits of American gentlemen in their yachts rather as directed toward infractions of the customs than of breaking the game laws. Of course the manner and way in which such orders are carried out have a good deal to do with the subject. As the French say, "It is the tone which often gives the pith to the song."

—Judge Caton, of Ottawa, Illinois, so well known as a naturalist, and whose contributions have often graced our pages, will shortly visit the Pacific coast for health and recreation. He will remain during the winter.

THE SIMMONS SHOOTING SUIT.—We wish to call the attention of our shooting friends to the column advertisement in our paper of the celebrated outfitting house of G. W. Simmons & Co., Oak Hall, Boston. Some description of the popular shooting suit which this firm manufactures is there given. We have given one of their coats a very thorough test during a recent two months' vacation ramble in the West, wearing it constantly, and cannot speak too highly of the comfort it afforded us and of its perfect adaptation to the requirements of a rough-weather sportsman. It will shed ordinary showers like a duck's back, but does not fully answer the purpose of a bathing suit. It is practically waterproof to a degree. For convenience in carrying shells and game, it is not excelled, and in the bush it saves many a scratch and tear. We shall never hunt without some suit of this description.

VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.—No. 3.

BY THE EDITOR.

NOVEMBER 15, 1877.

BRETTEN: Chroniclers say that the Indian name for Michigan is "Michisawgyegan!" Nothing niggardly about the old time aboriginals. They had no more letters in their alphabet than the palefaces had; but they found less use for them, and so gave fuller measure—more letters to the yard. "Michisawgyegan" means the Lake Country; a very poetic and proper signification in the vernacular, no doubt, but we modern philologists would expect more liquids (lake, water, liquid) among so many consonants.

The lakes of Michigan possess a beauty peculiarly their own. One who has never visited them cannot conceive their charming character. Some centuries ago the entire country was submerged. After that the water subsided gradually, leaving level benches or plateaus around the margins of many of them, which at the present day mark the stages of their successive recedings; so that nature has really laid out this delectable lakeland with a series of terraces already graded. She has clothed their sides and summits with beautiful forests of oak, hemlock, pine, beech, maple, radiant mountain ash, and fruitful hazel. She has encircled each crystal basin with a pebbly rim, and filled the teeming waters with toothsome and sportive fish. Goid springs gush from every hillside, and the outflow leaps into the lakes in rippling rivulets, or min-gles in fuller and more quiet volume. Deer and wild fowl stroll into the cool of their quiet retirement for refreshment and undisturbed rest. On the lower terrace the sagacious farmer lays out his lines, and behind the shelter of the upper ridge finds security from the northern blasts. Flowers bloom there in an unwounded latitude; fruits of the orchard and vine redden and grow heavy; and Indian corn ripens in golden fruition in the warmth which seems more genial because it is so exceptionally bestowed.

I love the lakes of Michigan in their summer moods; but when the birds leave in autumn I would fain leave too. This is because I am myself a bird of passage. Others may elect to dwell there the entire round of seasons through. I cannot condemn their choice. Home is where contentment dwells, and without contentment it matters not whether we abide in snow-blad Michigan or in the balmy "isles of Ind." When my bird returns in spring from restless winter journeyings over tropical seas, I may hope that he will bring back an olive branch as a symbol of some place of final perfect rest—of some Ark-adia, such as I suppose Noah found after the dove came back to him.

Three months ago, when the little propeller, beneath whose awning I sat, steamed out from under the wood-crowned cliffs of Mackinaw on her regular trip to Cheboygan, the old guns were still bristling on the battlements of the ancient fort, but flowers and shrubbery almost hid them from view, and peace and perfume filled the air. No menacing enemy provoked their fire. They had survived their usefulness; but the little garrison had marched away for the hills of Pennsylvania to quell discussion among our kindred. So shall we never know precisely where we shall be called to fight the battle of our lives. The foes may be those of our own household, where the altar fires should burn the brightest and the lares keep sacred ward against intrusion.

I left Mackinaw with the regret a benighted traveler feels when a passing cloud obscures the moon. The strait was beautiful; its blue waters were everywhere flecked with the white sails of the many distant vessels that were passing through from one great lake to the other. Gulls circled aloft, and now dipped into the waves. Two or three followed us into the mouth of the Cheboygan River. Here the State has spent much labor and money in deepening its channel to make it navigable for such craft as ours and the many timber rafts and bark boats that are annually floated through to the saw-mills and shipping below. We encountered a jam of logs just above the town, wedged so tightly together that a profane man on board declared we would be jammed before we ever got through! Yet, with boat hook and setting poles we gradually worked our passage, pushing aside the pliant logs and occasionally crowding on steam "jumped" the obstinate ones, forcing the boat clean over them. Once when visiting the back lakes of Canada I remember an exciting occasion when we thus jumped a boom, which, having been stretched across the river and secured by heavy chains, barred all passage. Episodes of this sort are of so frequent occurrence there that the bows of the boats are sheathed with heavy planking to withstand shocks. The great boom-logs lay fully ten inches out of water, and to novices looked an ugly barrier. But the sturdy little tug-boat backed off for a proper charge, like a war-horse in a tilt, and gathering steam, drove head on and over the obstruction in a twinkling, bravely sustaining a shock that made her timbers shiver.

Cheboygan is situated on the Lake Huron side of the Michigan peninsula, a town of 3,000 people, lying chiefly along the northern bank of the Cheboygan River, which, we have already said, is the natural outlet of the inland chain of lakes, which stretches nearly across the neck from Lake Huron to Little Traverse Bay in Lake Michigan. The trout fishing in the vicinity is very fine. Black Creek enters the Cheboygan River from Cheboygan Lake at a point a mile above the town. In this stream; in the creeks and streams that enter Duncan's Bay, three miles east; in the Oqueoc, fourteen miles east; and in the streams between Cheboygan and old Mackinaw,

brook trout can be taken in great numbers. So our friend Page says in his guide book; I do not speak from experience. On Bois Blanc Island, opposite Cheboygan, are two lakes, also said to abound in trout. Resuming our journey, we enjoy its novelty as we follow the course of the river for eighteen miles or so to Mullet Lake. There are no fish in the Cheboygan, the continual drives of logs keeping them out; neither do I learn that Mullet Lake affords much sport to the angler. It is little tested, however, possibly because there is better fishing ground elsewhere. I've heard of mammoth muscalonge being caught in it.

On a calm day like ours, the approach to Mullet Lake is entrancing. Like all the waters of the larger Michigan lakes, its color, when the waves are at rest, is a translucent green, but not as deep a green as the Niagara River, which most of my readers have probably seen. The effect of this peculiar hue is most charming. Upon approaching the lake from out of the wood fringed shores of the narrow river, we see it spread before us in a great expanse, luminous and gleaming in the sun like a sheet of beryl or hyaloprase. In the far distance, some twelve miles or so, the opposite shore is discernible like a line of haze on the horizon. While we sail, we smoke and contemplate, or indulge in harmless pistol practice at a brace of loons quite out of range. This breaks the monotony. Nevertheless we are glad when we approach the little landing on the verge of the unbroken forest, just below the mouth of Indian River, which flows out from Burt Lake, the second of the series. Burt Lake is full of bass, pike and muscalonge, and we shall stop at friend Williston's, the only house on Indian River, five miles distant, to try the adjacent lakes and streams. A Frenchman and his wife, named Coutois—very nice people indeed—occupy the only house at the landing where our boat now lies, which they keep as a hotel. It is a two-story, unpainted house, but it is new and clean, and smells of the grateful odor of the pine. No carpets cover the floor, but one don't care for carpets in summer. The cool glass of iced lager beer which is proffered is far more to one's taste and comfortable feeling when he is hot. For fall shooting I would recommend the Frenchman's house as headquarters. Wild rice grows in the lower part of Indian River, and many ducks congregate there in the latter part of September. The woods are "full" of deer and bears, for no one traverses them except the lumbermen. Moreover, Pigeon River is close by, and in the early fall, after the logs have been driven out, the grayling fishing there is unsurpassed. The fish are large and few ever angle for them.

Just here we have to exchange steamboats, for we require a vessel of lighter draught. Although much dredging and deepening of channels and driving of piles has been done to promote navigation, the shifting sands of the bottom rapidly work into bars, and a foot of depth is often all that is offered to encourage attempted progress. Our new craft has a pair of spluttering sidewheels and is manned by a steersman, who is captain and collector of fares, and an engineer, both men acting as deck and shore hands when required. She is called the "Valley Queen," and her captain owns the house up the river which friend Williston keeps. However, there is comfortable cabin accommodations on board of her for twenty such persons as have been in the habit of traveling in New York street cars, and twenty more can stow themselves on the trunks aft. Sometimes the "Valley Queen" carries barrels and boxes of freight for the use of the lumbermen's camps which tends to eramp the accommodations, and very often a score of the brawny red-shirted fellows themselves; and a very civil set they are in the main, and intelligent whil.

Now, let us imagine ourselves under way. Spread out before us for a mile on either side is a grass and rush swamp, with scattering patches of wild rice inclosing small ponds of open water. On its outer edge is the forest. Nature everywhere is in its wild state. A stray eagle flaps his leisurely way overhead, and an occasional heron rises out of the marsh. Muskrats paddle along the margin of the river, and dive when sufficiently alarmed by the approaching boat. In the how of the boat is a statue, motionless, holding a gun. It is A. B. Turner on the lookout for ducks. At intervals a single one, or possibly two or three, rise out of a pool, and making a wide detour, return and fly past far out of range. Turner bangs at them but bags no game, as it is against the law to shoot ducks in August—any kind but wood-ducks. [Mem. All killed ducks are wood-ducks; those that are not hit are mallards or teal.] The sport of loading and watching for chances occupies the time until the boat draws out of the swamp. At length the forests close in, and the river narrows to a channel three times her width, with cedars, balsam and hardwood, impinging close and sometimes arching over. Pigeons afford frequent chances for marksmanship, and Brother Turner proves his skill with credit at wing-shooting. In due time we pass the mouth of Sturgeon River, a cold and rapid stream abounding in grayling; then two log houses presently come in sight on a bluff to the left, and directly afterward the whistle shrieks as if it would blow itself loose, and we round a bend and glide up to a substantial log landing in deep water. This is Williston's house, and here we tie up for dinner. Two ladies and a lad are still-fishing for bass hard by. There is an Indian camp on the shore opposite, with dug-out canoes hauled up. Burt Lake is visible over the point of land ahead, and the whole outlook is promising for sport. Here let us rest.

I can conceive of no more central point for sport than just here at this quiet log house in the middle of the wilderness, with only three other houses within a distance of twenty miles. There is the river flowing at your door, connecting

the two large lakes, each some twelve miles long; the forest around you, and game and fish to be had by the skillful with the usual amount of painstaking. It is not luxurious pastime nor child's play to hunt large game. For instance: We are to have a bear-baiting to-night, and will go out with Williston. Williston is an educated Massachusetts gentleman of the old Northampton stock. His family are above the ordinary type of "moss-backers," as the homesteaders are called in this section. The "bar" signs are plenty, only three miles back in the bush, but a three-miles tramp at night through a tangle, when the dew is heavy and the forest dark as Erebus and Nox, is not as pleasant as a stroll "on the beach at Long Branch." Besides, we shall have to lie out all night whether we get the bear or not, as it is more preferable to wait for daylight than to tramp through the woods in the gloom, and the bear must be cut up before he is carried out to the house. So we gather up some remnants of fox carcass and other wild meat secured for the purpose, and, shouldering guns, axes and blankets, made into a pack, take a few biscuit in the pocket and sally forth. We cross the river in a boat, kick aside the dogs at the Indian camp who intercept us, and plunge into the thicket. There is a blind trail for a distance, and after that comes travail of the worst sort. In daylight the natural obstructions of fallen trees, roots, briars, interwoven branches, swinging grape-vines, mud-puddles, spring-holes and brush would be sufficiently discouraging; but now we are throttled by the vines in the darkness, tripped by the roots, grasped and scratched by the briars, and upset by the fallen trunks; forked limbs jerk off the bundles of blankets, the brush catches the trigger guards of the guns, your ax falls in the mud, your boots stick in a spring-hole, and the dew and night dampness soak to the skin. By the time you are thoroughly thumped, bruised, scratched and wet, you are prepared to put out the bait and camp. The place where the bear has made the most sign is selected, the bait is deposited, and the hunter folds his blanket about him and awaits the denouement. Secluded in a thicket of brush, he holds his gun ready and resigns himself to patience and the pleasures of hope—like the gambler's wife in the story. After hours of anxious waiting, "the clock strikes twelve." No bear! "One o'clock!" Long time he carries; the game grows interesting. "Two o'clock!" "He cometh not," she said. "Three o'clock!" The play is for high stakes now. Drowsiness rests on the heavy eyelids. "Four o'clock." The first gray of dawn pervades the woods. The vigilant watchers shake off their somnolence and rouse themselves. Ha! the bait is gone; the bear is *non comitibus in swampis*! "Five o'clock." Tableau at the garden gate. [Hunt to be continued.]

Fish are more easily captured than bear steaks. Yesterday a large pike lay under a root in the shallow water just opposite the landing. A fringe of weeds floated around the place and a lily-pad shaded the old fellow's head from the sun. Let us drop a bait there! no matter what sort of bait. These *esocidae* are verdant and not up to the tricks of masters of the angle; they will bite anything. We have a minnow and will give him that. Phew! what a rush! He has it! Presto! the fish is gone—and the bait, too, the stout line bitten off short. Now give him a wire snood and try him again. There, we have him! No stopping on ceremony when a pike's fast is to be broken. He's fast enough this time at any rate, and makes brave play. After all a big pike on a rod is no mean customer, despite the had name folks give him. They are lively enough at the first, but their pluck doesn't last. That's what's the matter! Now reel him in! A big stick would afford as much play. Here he is with the two minnows in his gullet—three feet long by my pocket tape measure. Now let's take breakfast, steak or no steak. Pike is not bad eating.

I doubt if the Indian River has ever been fished with a trolling spoon. Tourists don't stop, but pass directly through. Sometimes they let a hook-trail in the foam-aster of the steam-boat, and frequently pick up a fish, almost under the splash of the paddle wheels. I never such a favorable place for pike. The entire river, and especially the last four miles, is lined with weeds and roots, under which the fish lie in multitudes. One day we took our boat down stream to look for pigeons, hoping for shots as they flew across the river. In the boat was a cut sapling and a short line, which a lad had used for fishing in his unsophisticated way. I fastened a spoon on it, and carelessly threw it over the side. In a twinkling a pike took it. We took twenty-seven fish without an effort as we drifted down—all caught within ten feet of the boat. Some jumped a foot out of the water, and seized the hook while it dangled in the air. All were large, and one four feet long. I've often thought I would like to try the experiment there, *secundum artem*, to see how many I could catch in a single day. I verily believe the boat would swamp before it would get the load home.

Just above our place at the landing, the channel has been dredged and deepened, and the sand thrown out on either side is kept from drifting into the stream again by long rows of piles and planking. The bottom is irregular, and from the deepest holes one can take bass with a fly while standing on the bank. But Burt Lake is the place *par excellence* for these splendid fish. They grow large there. Pike and muscalonge of enormous size swim in its waters, and the Indians keep their larders abundantly supplied therefrom. They can be taken with troll or minnow along shore where the shoals break off abruptly into deep water, making a shelf under which long weeds grow, stretching from the bottom to the surface.

Forty rods from Williston's house is an Indian burying-ground where the dead are buried who fell in battle at the

Island of Mackinaw during the earlier struggles. Their friends carried the bodies a long distance that the solitude of the inner wilderness might guarantee immunity from disturbance. Yet the canal diggers lifted out the bones with their sacrilegious shovels until the cowed remnants of the tribe who still reside in the neighborhood mustered enough of their old fire to forbid the exhumation, and compelled them to desist by threats of vengeance dire.

I would like to convey to the reader in florid word-painting some idea of the beauties of the lake scenery around me, but Virgil and all the poets after him have sung bucolics until the books are filled with the familiar theme. So I will merely say that the beaches are shelving and the shores are bold, with only a settler at intervals of many miles. On one side of Burt Lake is a small Indian village, which we pass as we enter Crooked River, a stream more crooked than its name. So sinuous is it that it doubles on itself and worms through the forest like a snake, with many a twist and turn. Progress through it is helped by poles shoved against the bank, after the fashion on the Oclawaha in Florida, only this river is more crooked than that. Deer and bears are often intercepted by the boat while swimming across, and I've no doubt but that most of the denizens of these woods have never heard a gun.

Through Crooked River into Crooked Lake: At the head of Crooked Lake we take stages for Petoskey, now seven miles distant, having completed the circuit of the round trip since the reader started with me. There is an outlet from Crooked Lake into Round Lake, and thence into Traverse Bay; and perhaps some day a contemplated improvement will be made and the channels from one to the other be deepened so that boats may pass.

A year ago the road to Petoskey, which we now travel with comparative ease, was almost impracticable. How so good a road as it now is could be made through a tamarack swamp so dense seems marvelous. It would puzzle a bear to push through the jungle that characterizes the first half mile of the journey. But the forest grows gradually more open, and the monotony of the ride is broken by a dash along the shore of Round Lake. Then the stage dives into the wilderness again, and at a distance of two miles from town strikes a frequented road, passing the Methodist camp ground, where the underbrush has been cleared out, and thence leads into Petoskey. When I drove through, scattered fires were burning in the forest. Some were so near the roadside that the heat was fervent. It was pitch dark, and the lurid light of the leaping flames and their crackle among the pines and hemlocks, with the dust of the road and the thick smoke of the burning, made the journey seem like a passage through—through—well, you can imagine what it was like. We drove so fast that we had little time for imagination. The reality was all that we could manage for the time being. We were really in danger of being cut off if a wind had sprung up. The next day the fires had spread very considerably, and for several days after the smoke of the conflagration rose in a great cloud. Then a timely rain came, quenched the blaze, cleared the atmosphere, and tourists who made the passage had only the charred and bleakened rampikes to contemplate and regret.

In my next I will take the reader through the southern chain of lakes. HALLOCK.

BRONZES AND BRONZE ORNAMENTS.—We have too long looked to France for entire supremacy in works of art. Granting to a certain degree that our models are derived from foreign sources in the execution of bronze work, our metallurgical skill is beginning to assert itself. Ingenious methods of casting and working metals belong exclusively to our people. They have it within their own hands to produce at cheap rates ornaments of the most beautiful and varied character. In visiting the handsome show-rooms of the Bradley & Hubbard Manufacturing Co., No. 21 and 23 Barely street, the extreme elegance of their most extensive collection of bronzes and ornaments struck us with astonishment. Here were the choicest models reproduced in endless variety. There were plenty of objects which would strike the sportsman's eye, such as models of dogs, horses, birds, stags and many other animals. As prizes for sporting contests, a great many of these subjects would answer admirably well. The Bradley & Hubbard Manufacturing Company also make in bronze and metals those beautiful *jardentieres* which the ladies delight in. It is not only the perfection of design which is to be regarded, but the price of such beautiful objects is within the reach of all.

"FRID BEVELLY" IN THE WEST INDIES.—We have already printed three letters from this indefatigable naturalist, giving some account of his scientific explorations in Martinique, Dominica, and other West India islands, and are promised more letters soon. The information which Mr. Ober is now gathering, is in behalf of the Smithsonian Institution, and will probably cover a period of two years in all. It will be eventually published in a volume, illustrated principally from photographs, and will be a work of much value, inasmuch as it covers ground almost wholly new, and much that has never been visited. In a letter dated at Antigua last September, Mr. Ober says:

I have visited and photographed the "Boiling Lake" of Dominica, and am the only American who has seen it; have lived among the Caribs two months (the only white man in the region); have made long excursions into the mountains, with only Indian guides, in search of the "Imperial Parrot," my specimens being the first ever sent to America. That was

a rich time I had, sleeping under a hut of palm leaves in the midst of a tropical, mountain forest, shooting parrots.

Mr. Ober has already sent to the Smithsonian lists of the specimens which he has collected on each island, which was hope to obtain permission to publish soon.

In the Antiqua letter referred to above, he says:

I have just returned from Barbuda, where I had glorious sport shooting guinea fowl, hunting deer, wild pigeons, doves and plover. Plover shooting commences here after the first northwest stern after Sept. 1. Golden plover come down in swarms. Everybody owing a gun turns out. Everybody has to have a license, too (not two licenses), to shoot; costs ten shillings; I had to take out one before I could collect; that is, they collected from me before I could collect the birds. This is the "Collect" they believe in. Expect to leave here in a few days to plunge into the woods again.

**ALLEGED SWINDLING SCHEME IN FLORIDA.**—A correspondent sends us some useful information in regard to schemes of bad repute, which are apparently going on in Florida. We quote the following from the Philadelphia *Evening Telegraph*:

For some time past public attention has been directed to the efforts of certain people to induce men to emigrate to Texas, Florida and elsewhere, holding out such inducements as to lead to the impression that land can be procured for little or nothing. This morning the matter was brought to the attention of his honor, the Mayor, by the reception of the following letter, which fully explains itself: "Starke, Florida, Oct. 20—William S. Stokley, Sir: About a week ago I arrived at this place as one of a colony from Philadelphia, to locate in this place, under the title of Florida City Colony, managed by certain parties residing in Philadelphia. We came by way of Savannah, Ga., and Baldwin to Starke; but what was our astonishment to find that there was no such place, and no one knew of such a place. I, with the rest of our party, bought land plots at \$5 each. It was represented to us that the land was all surveyed, and that was all we would have to pay. We find, however, that we have to pay \$5 more for having it surveyed. I have been here a week, and I have not seen one article of my freight. My wife and children are suffering for the necessaries of life, and we cannot get them. I trust, sir, that you will use all the power you possess to stop others from being deceived, so that they may not leave their comfortable home to come to a desert among strangers, who hate them and charge two prices for everything they have to sell. I hope, sir, you will cause this to be published in the daily papers, so that others may not come. One of the parties is now here, and will shortly return to bring others out. I hope, sir, you will prevent him.

R. LITTLE, Starke, Florida.

There are swindlers everywhere from Maine to Texas. It behooves of course everybody to look carefully at any project. It would perhaps be well for our Florida friends to get at the bottom of this business.

**THE YELLOW FEVER IN FLORIDA.**—As there may be some needless alarm about yellow fever in Florida, we take great pleasure in publishing a communication from a distinguished physician of Jacksonville, which must dispel all fears—such cases of fever as may have appeared, were entirely confined to Fernandina, and the cool weather has dispersed all danger long ago.

*Editor Forest and Stream:*—Many ridiculous stories and statements have appeared in the public press regarding the prevalence of yellow fever in Florida. It is a fact that yellow fever existed in the city of Fernandina for several weeks; but your readers must remember that the city of Fernandina is not the whole of Florida. It is located on an island at the extreme northeastern portion of the State. With the exception of four cases, one a quarantine officer, and the others refugees, the disease has been confined to the affected city. The city of Fernandina has been rigidly quarantined by the remainder of the State, and in consequence the disease has been limited in its ravages.

Persons desirous of visiting the State need not remain away because yellow fever prevails in one little corner of it. Jacksonville and East Florida can be reached by rail without approaching within sixty miles of the affected locality; and by water from Charleston and Savannah without sighting the island upon which Fernandina is located.

During the last summer, Jacksonville has maintained its reputation of being one of the healthiest cities east of the Mississippi. Our mortality during the summer months has been very small.

Among the hotel improvements I may remark that the popular Windsor has been doubled in size, and refurnished with every luxury and convenience, and is a palatial hostelry. It is under the management of General Lewis, of Cincinnati, a gentleman who knows how to run a hotel. The old and favorite Metropolitan has changed hands, and has been cleaned and renovated from stem to stern. It is under the charge of C. H. Edwards, who will be found an attentive host. The terms are moderate, and cleanliness is the order of the day. With regard to the table, I can assure your readers that I have tested it for four months, and have found it all a gourmand or gourmet can desire.

The old and favorite steamers are on the river and a new one eighty feet long and twenty-four feet beam, named the Border City, has been placed on the route between this city and New Smyrna. From an examination of the craft I feel assured that she is staunch and sea-worthy; and last, though not least, her accommodations are comfortable. A steamer called the City of Bridgeton has been placed on the route between Savannah and Beaufort, and will make weekly trips. She is a fine vessel, and possesses excellent accommodations for a large number of passengers.

In conclusion, I may remark that settlers, tourists and sportsmen run no risk and need not hesitate to visit this State on the score of yellow fever, for it is "cabineted, cribbed and confined" on a small island at the extreme northeastern portion of the State, where it will be caged until Jack Frodo ends its career.

AL FRESKO.  
Jacksonville, Oct. 29th, 1877.

**HAYES' POLICY.**—We wish to express our most hearty approval of the President's policy. Now, do not frown; we, of course, do not refer to politics. Whatever might be our reserved opinion of the Southern policy, the Civil Service policy, or the other fruitful themes of dispute, we certainly should not be so

stupid as to obtrude our opinions through these columns. But we do unhesitatingly indorse Mr. Hayes' rule of confining the official cares of his position to their legitimate place, as was set forth in an interview with Barnum the other day. The great showman, in his role of public benefactor, called at the White House to condole with the President over the cares of his office, and, of course, to invite him to the show:

"I sympathize," said Barnum, "with anybody who holds the office of President. Of course it is a high office, and all that, but I have known every President from Jackson down, and they all got gray under it, except, perhaps, Grant. How well I remember poor Polk; his hair turned gray, his eye lost its sparkle, his face became pale and his body thin. They worry themselves to death." "There is no danger to me, Mr. Barnum," answered the President. "I do not intend to grow gray in office." "But you can't help it," said the showman. "You make a mistake; you see it when it is too late, and such things trouble you. You have a troublesome question, for instance, to-day; what do you do with it? It stays in your mind and follows you into your family and into your recreation, if you take any. Your mind is at work on it at night when you don't know it, and before you are aware you will be gray-headed." "You are mistaken there, Mr. Barnum," quickly replied the President; "I do not allow my official annoyances to follow me outside of this room. I go to my family, play with my children and forget that I am President. Nearly every day when I leave this office, usually from 3 to 4, I go for a drive, but sometimes I prefer to walk. I take with me in my carriage some pleasant gentleman, who is agreeable to me, and who I know will not talk to me of public business and politics. A long drive settles my nerves, banishes the sad cases that come to me which I cannot help, and gives me an appetite for my dinner. In the evening I see many friends, socially, and this is a diversion rather than a task. I am rarely troubled with politics in the evening. Those who come, both ladies and gentlemen, are generally known to us, and they come at our invitation. I retire reasonably early and rise early, and so there is little danger of gray hairs in my case."

**THE GREAT LONDON CIRCUS.**—A circus! That is just one of those things a man never tires about. It is said that a theatre depends for its support upon a younger generation. That is the fresher element which, ever being produced, takes in with ecstasy the pleasures of the drama. True your old, habitual play-goer, at least in America, is a *rara avis*. But a circus! There, at least, there are no stragling conventionalities. The Lord made fine horses; one sees them in all the beauty of that strength and grace, which no amount of training or handling can efface. There is exhilaration in the smell of the saw-dust, and a whiff of it must always recall the time, long ago, when the Spanish quarter, with the pillars of Hercules on it, was spent, and the whole world, the *plus ultra* of delight, was opened. There is a charming simplicity about the downright foolishness of the regular old-fashioned clown, which is worth more than all the doubly-distilled wit of to-day. See the thews and muscles of the circus men! How they stand out like whip-cords! If you have not so much brawn yourself it makes you wish you had it. Another man's intellectual powers may be depressing; you may be weighted down by somebody else's brains; but one never envies him who possesses strength and agility. The fact is that we, all of us, are inclined too much at times toward those amusements in which the mental powers are called entirely into play. We seek recreation and are plunged all the time in a brown study. It is physical enjoyment, such as can be taken in by the eyes, that we oftentimes pine for. We don't know, it is true, always, what we want to find, but we often go for relaxation to the wrong places. We defy any one to see that famous lady, Miss Dockrill, in her four horse act, without being carried away in a perfect rush of enthusiasm. Every time she floats over a barrier or clears a narrow hoop, the heart of the spectator rises and falls in unison with her. Think of seven funny men cracking off jokes in seven distinct languages! Then there are baby elephants, and all Noah's ark of animals. The Great London Circus is an event, and Gilmore's Garden never had a more attractive show than the one we have but vaguely described.

OUR WASHINGTON LETTER.

THE CORCORAN ART GALLERY—ART AND ANGLING—STATUARY AND SPORTSMANSHIP—DOGS AND DUCK SHOOTING—SALMON FISHERIES OF THE COLUMBIA RIVER, ETC., ETC.

[FROM OUR OWN CORRESPONDENT.]

WASHINGTON, D. C., Nov. 3, 1877.

AMONG the many rare and valuable pictures in the Corcoran Art Gallery, that magnificent building at the corner of Seventeenth street and Pennsylvania avenue, a monument to the munificent benefactions of W. W. Corcoran to this community, are a number representing the pleasures of the chase, the sports of the field and stream—all true to nature, and many of them portraying such scenes as every sportsman frequently meets. Such pictures are sure to steal over one with all the charms of a personal reminiscence. This institution, which is a conspicuous illustration of the zeal of Mr. Corcoran in cultivating a love for the beautiful, and contributing to the pleasure of his fellow man, is maintained by an endowment fund of \$900,000, yielding an annual income at present of \$63,000. Doubtless the distinguished philanthropist reaps as much pleasure in distributing his wealth as he did in acquiring it. I will not attempt a description of the gallery and its valuable pictures, about which columns might be written, but briefly refer to such pieces as are of interest to all sportsmen. First, on account of its masterly treatment and its wide reputation, may be named "The Lost Dogs," by O. Vou Thoren, an animal picture equal to Landseer's in point of close adherence to nature. It is quite large, and represents two beautiful setters lost at the close of a wintry day. The active distress of one, "the wail of the lost," and the mute resignation of the other are strongly portrayed. It is full of feeling, power and nature, and is much admired by all visitors. The picture was exhibited at the Vienna Exhibition in 1873, where it elicited much praise.

The next picture to attract the sportsman's attention is one representing "A Trout Brook in the Catskills," by W. Whittridge, of Ohio, an artist who has attained a high rank and I believe now pursues his art in New York City. Its exquisite tints, the burst of sunlight and coffee-colored hue of the water make it an effective picture. It is the only specimen of the work of Mr. Whittridge in the gallery, and is highly esteemed in that institution.

Another is a characteristic American Shooting scene, entitled "Duck Shooting." It represents two sportsmen engaged in that charming sport on the Jersey flats, and it is the work of Wm. Ranney. A handsome red Irish setter has just retrieved a canvas-back, and approaching his master, sits up to deliver the fowl. The master, however, is ranning home a charge (for the picture was painted in 1850, before the day of breech-loaders), and his companion holds out his hand to take it from the dog, but there is an evident reluctance on the part of the latter to give it to any one but his master. Several ducks which have been shot are shown in the foreground, all true to nature. The picture is full of vigor and truth. It was in the private collection of Mr. Corcoran, and was donated to the gallery with that collection.

"The Disputed Shot," by J. M. Stanley, an artist well known on account of his famous Indian portraits, many of which, it will be remembered, were destroyed by the disastrous fire at the Smithsonian Institution some years ago. This picture illustrates a scene of Western life. It is worked up with delicate details, and is perfect in drawing, finish and color. Three hunters having returned to their cabin from the chase, have just assorted their game, consisting of a deer, number of ducks and various birds; and while two of them are apparently disputing as to whose shot brought down the deer, they are watched with grave dignity by a noble setter in the background.

A very humorous picture is that of a fat, happy-looking monk fishing in the moat beside an old castle. He is surrounded by an abundance of tackle and a huge landing net, but the only evidence of his success are three bull-frogs lying by his side. The picture is the work of L. A. G. Loustenuau, and came from the Paris Exposition of 1874.

Another picture entitled "Wood Scene with Hunters," by M. Bouquet, represents a party of sportsmen who have been engaged in the chase, resting in the forest surrounded by their hounds. The incident is admirably told, and every part of the work painted with great force and clearness. Mr. MacLeod, the curator of the gallery, has a specimen of his own work on exhibition. It is a picture of the Great Falls of the Potomac, the favorite black bass fishing locality in this section. The Falls and surroundings are given with strict local truth.

There are numerous other attractive works whose merits deserve an extended notice, but which time and space forbid at present. Among them may be mentioned "On Catbird Creek," by W. B. Boggs; "Dog and Parrots," by F. Lachenwitz; "Tiger Hunt" (water color sketch), by A. L. Barge; and "Scene in the Catskills," by Paul Weber. Of course, there are many grand pictures in the gallery by renowned artists, but I have referred to such as represent sporting scenes only.

In the display of bronzes, in a large hall to the left on the first floor of the building, are over one hundred pieces, comprising the collection of the late Antoine Louis Barye, of Paris, a famous sculptor and professor of animal drawing in the Jardin des Plantes, Paris, a position he held at the time of his death, in June, 1875, and one in which he gained an astonishing knowledge of the forms and habits, quiescent and ferocious, of the various animals there. He was perhaps over fond of showing the ferocious instincts of the brute creation, but their gentler moods are quite as successfully represented. Among the many attractive pieces in this collection are the following: Two Arab Horsemen Killing a Lion; An African Horseman Surprised by a Serpent; An Indian Mounted upon an Elephant Crushing a Tiger; Apo Mounted upon a Gau; An Erect Bear; Two Young Bears; Theseus Slaying the Minotaur; Theseus Slaying the Centaur; A Wolf Seizing a Stag by the Throat; Lion Devouring a Hind; Lion and Serpent; Two Young Lions; Tiger Surprising an Antelope; Jaguar Devouring a Crocodile; Ocelot Carrying off a Heron; A Deer Dragged to Earth by Two Scotch Hounds; A Group of Deer; A Group of Rabbits; Pheasant; Virginia Deer; Wolf Caught in a Trap; A Frightened Hare; A Panther; Stag of Java; Couching Fawn; Tortoise; A Bear Flying From Dogs; Huntsman in Costume of Louis XV.; A Bear Overthrown by Bulldogs; Greyhound and Hare; Deer, Hind and Fawn; and many other beautiful pieces representing wild and domestic animals, birds and serpents, the whole forming a most interesting collection.

In the Hall of Antique Sculpture, among many grand works of art, is a statue of Diana, the Goddess of Hunting, from the original marble in the Louvre. The goddess is represented as snatching from Hercules the miraculous deer with golden horns and brazen feet, which he had chased for a year. The sculptor is unknown, but it is supposed to be the work of the same artist as the Apollo Belvidere, the famous statue discovered at Capo d'Anzo early in the sixteenth century, and placed by Michael Angelo in the Belvidere Gallery, Rome. This latter statue Byron describes as

"The lord of the unerring bow,  
The god of life and poetry on light—  
The sun in human limbs arrayed, and brow  
All radiant from his triumph in the fight."

The original of the Diana above mentioned is supposed to

have been made during the fourth epoch of Greek art, which extended from the death of Alexander to the conquest of Greece by the Romans, B. C. 146.

#### SALMON FISHERIES ON THE COLUMBIA RIVER.

The bill recently introduced in the Senate by Mr. Mitchell, of Oregon, authorizing the Secretary of War to grant permission to the proprietors of salmon fisheries, now located on Three Tree Point military reservation, on the Columbia River, in Washington Territory, to remain in said reservation until the same shall be required for Government purposes, is to prevent the removal of two large canning establishments now located on that reservation, which is not used for any purpose whatever by the military authorities. The proprietors of these establishments, when they located there, did not know that it was a military reservation. They purchased the right to conduct salmon fisheries there from a person who claimed to have pre-empted the land, and expended about \$40,000 in the erection of buildings and for the necessary machinery used in canning establishments, and then learned, for the first time, that they were occupying a military reservation. The matter was investigated, but the books of the Land Office did not show that it was such reservation. The War Department records did, however, and the Secretary of War ordered them to remove. Subsequently all the facts were brought to his attention and he revoked the order, issuing, in lieu thereof, one allowing the parties to remain there for one year, which will not expire until after the close of the next fishing season. One of the proprietors was recently before the Senate Committee on Military affairs when the bill above mentioned was considered by that committee, and explained at length all the facts connected with their occupancy of the reservation. There are about thirty salmon canning establishments on the Columbia River, and the two at Three Tree Point are among the largest.

The markets of this city, I notice, are already quite plentifully supplied with game, but, as the season advances and the weather becomes colder, the supply will be more abundant. There is an extensive business here in ducks and other aquatic fowls from November to March, the Potomac, from Alexandria to Point Lookout, a distance of a hundred miles, being a favorite feeding locality for them, and thousands are killed every winter for market. Mr. James H. Skidmore, probably the oldest and one of the most reliable dealers in game and fish, not only does a thriving business here, but ships large supplies North. Upon his stand in the Centre Market a few days ago, I noticed wild turkeys, shot in Virginia, which were retailing at \$1.50 and \$2 each. Partridges, \$3 per dozen; ruffed grouse, \$1.25 a pair; woodcock, 50 cents each; snipe, 25 cents each; plover, 37 cents each; canvas-back ducks, \$2 a pair; red heads, \$1.50; black heads and widgeon, 75 cents a pair.

Mr. Henry Herberner has on exhibition at his restaurant on King street, in Alexandria, Va., a most remarkable specimen of fish. It was caught in an oyster dredge near Piney Point, and still remains alive, eating freely of crackers and bread. The fish is shaped somewhat like a turtle and has a hard shell. It has eyes in the shell, and its under side is furnished with a number of arms or claws, terminating like those of the ordinary crab, while the rear portion of the stomach is covered with jointed scales like the common cockroach. It has a tail like a turtle's, and about a foot long. Altogether it is a very singular fish, and old fishermen say that they never saw anything like it.

R. F. B.

#### GAME PROTECTION.

INFRINGEMENTS OF THE GAME LAWS WEST AND EAST.—In a capital article which appeared in the *Chicago Field*, entitled "On and After," violations of the law in selling game are fully discussed. Chicago is exactly the centre which draws to itself the game of the West, while New York is the point of general distribution. Our contemporary deserves the thanks of all sportsmen for his efforts in this laudable direction. With the *Chicago Field* at one end of the line and the *FOREST AND STREAM* and *ROD AND GUN* at the other, there may be good reason to suppose that before long exposing game for sale out of season, and in violation of the laws, will be prevented. Let Brother Rowe stop shipments from Chicago; we will see to it that whatever escapes his vigilance there will receive an attention when it reaches New York.

THE GREENWOOD LAKE ASSOCIATION.—At a meeting of the Greenwood Lake Sportsmen's Club, held in this city, Nov. 7th, Messrs. Olcott, Cooke, Olcott, Jr., Millsbaugh, Verman being present, with McDowell, chairman—it was resolved that,

The executive committee and officers of the Greenwood Lake Sportsmen's Club be, and hereby are, instructed to transfer, set over and deliver to the Greenwood Lake Association, all the property and effects whatsoever of the Greenwood Lake Sportsmen's Association, upon the Association agreeing to recognize as their members all members of the Greenwood Lake Sportsmen's Club.

At a meeting of the newly-formed Greenwood Lake Association trustees, Messrs. Olcott, Cooke, Roe and Verman, it was resolved, on motion of Mr. Cooke, that the condition of the above proposition be accepted; and it was also resolved to allow the delinquent members of the former club thirty days in which to pay their initiation fees and monthly dues. A meeting is to be held in Brooklyn, at the residence of Dr. C. Olcott, Dec. 10th, for the purpose of presenting the form of certificate of stock, and to take measures for the erection of a club house at the lake which will be built as soon as the snow goes off the ground in the spring. The officers elected were:

Dr. C. Olcott, Pres.; A. S. Roe, Vice-Pres.; H. C. Cooke, Treas.; Wm. O. McDowell, Sec.

PROTECTION IN VERMONT.—The Vermont Association for the Preservation of Fish and Game held an interesting and very successful meeting at Rutland, Nov. 6. The rolls of the association show the names of more than 100 members, among them such men as Chief Justice Pierpont, Senator Edmunds, Dr. Goldsmith, Gov. Stewart, Col. Cannon, Hon. Jo. D. Hatch, Gen. Foster, Lieut.-Gov. Proctor, Hon. M. G. Everts, Gen. W. Y. Ripley, Gen. E. H. Ripley, Col. Merrill, Col. Colburn, Hon. Charles Barrett, S. B. Pettengill, editor of the *Rutland Herald and Globe*, in which journal the society has a valuable and influential auxiliary; William Rix, Esq., C. N. Davenport, Esq., Dr. Edmunds, President Buckham, E. J. Phelps, Esq., Gen. Grout, Col. John W. Newton, Rev. Henry Fairbanks, Hon. N. T. Sprague, Dr. Guild and others. After the banquet (advocates of protection are always most eloquent on that theme just after having been well fed on roast venison, ducks, prairie chicken, partridge, etc.) reports were read, which show that several rivers and ponds have been stocked with black bass and other fishes, and an increase of game in many parts of the State is adduced as a result of the society's efforts. Among the papers read was one by Judge Everts on the importation of the Messina quail, of which importation, it will be remembered, a full account was given in *FOREST AND STREAM* of Aug. 2d and 9th. The 100 birds having hatched their young, and having increased as it is estimated by over 500, started southward Sept. 1, since which time they have not been heard of south of Eagle Bridge, N. Y. The birds lived principally on grasshoppers and other insects. Judge Everts was directed by the society to correspond with Senator Edmunds, relative to the importation on an extensive scale by the Government or the States of these insects as an antidote for the grasshopper scourge. It was also voted by the society to recommend to the legislature an amendment making the open season for partridge and woodcock from Sept. 1 to Dec. 1. The officers elected were: President, Hon. M. S. Colburn, Manchester. Vice Presidents, George F. Edmunds, Burlington; J. W. Newton, St. Albans; George E. Gale, Brattleboro; Carrol S. Pitkin, Montpelier. Secretary, S. B. Pettengill.

THE RICHMOND ASSOCIATION.—We regret that we cannot chronicle an equally successful meeting of the Richmond Game and Fish Protective Association, which was to have convened during the late State Fair. There seems to be no lack of individual and local interest in protection among the sportsmen of the Old Dominion, if we may judge from frequent communication to the *Richmond Whig*, as well as from private letters received by ourselves. Whether the failure of the past east a depression upon the late proposed meeting, or whether from other causes equally potent, the convention proved a failure. Among the papers which were to have been read was a carefully prepared address of Dr. Elzey, of the Agricultural College at Blacksburg, which we hope at a future date to lay before our readers.

NEW YORK.—*Niagara Falls, Nov. 10.*—I wish to make some corrections in my letter of Nov. 1, as some persons have evidently misconstrued my meaning. What I charge, or meant to charge, was that the club, J. P.'s and policemen, took no measures to prevent or punish the violation of the game law, and the three persons in particular (whom I believe to belong to the club) in violating it by shooting quail out of season. I did not claim that all of the club, J. P.'s and police, etc., violated the game laws, but that they took no pains to prevent it. It has made quite a stir among them, and I have no doubt that it will do some good in the future.

C. S. RICE.

HOW LONG IS THE ARM OF THE LAW?—A correspondent writes us of deer hounding in the northern wilds of this State. We are glad to expose the names of these men and sincerely trust that the law may be made to reach them:

I was at Long Lake and Newcomb; just came from there. They are paying no attention to the law in regard to hounding deer. You can hear them all around, and even see the watchers on the public roads, where runways cross it. Not more than one in ten do they get, but a great many get their legs broken on the hedges, some become sickly, and die after running so hard and going into ice cold water. I can give you names of some that are hounding deer. They are Harrison Hall, V. Hall and Hank Parker, of Newcomb, N. Y. They say that the law does not come back to Newcomb and Long Lake. They say hundreds were crust hunted last winter and killed. Game constables are appointed through there, but are not sworn in because they are guides and like to hunt. Yours truly,

JAMES E. ROBINSON.

KILLING DEER IN AN UNSPORTSMANLIKE MANNER IN WASHINGTON TERRITORY.—The following correspondence, with an extract from the *Port Townsend Argus*, explains itself. Deer are being ruthlessly slaughtered in and about Olympia. Go ahead, gentlemen, kill every thing right and left in an unsportsmanlike way, and in time there will be no game in the neighborhood! We decry such wholesale butchery, which is of the most pot hunting description.

OLYMPIA, W. T., Oct. 25, 1877.

#### EDITOR FOREST AND STREAM:

I send you an extract from the *Port Townsend Argus*, which tells its own story. The deer were killed by driving them into the water with hounds, and shooting them from the shore while swimming for their lives. At this rate of destruction, it is only a question of very short time how long the deer will last in Washington Territory. On all the islands in Puget Sound deer are found in great numbers, as their natural enemies, the cougar and lynx are not inhabitants of these islands they increase rapidly, and afford excellent sport for the still hunter.

Very truly yours,

OLYMPIAN.

Mr. G. M. Haller informs us that he, with Judge Lewis and others, who have been out on a hunting excursion for nearly two weeks, enjoyed the trip very much, although the rain for two days in the early part of the tour made it rather unpleasant. The party visited several islands in the course of the trip, and killed in all 25 deer.—*Argus*.

—Elkton, Md., has a new game club, which has been formed for the purpose of prosecuting any persons found on Elk River violating the ducking laws of the State.

The Cayuga County Lake and Forest Association deposited in Owaseo Lake last spring, at an expense of over sixty dollars, 125,000 salmon or lake trout fry. On Saturday evening last, thirteen fishing boats were seen at one time out upon the lake with torches and spears, killing trout upon their spawning beds.—*Syracuse Standard, Nov. 2.*

#### SPLIT BAMBOO RODS.

To our customers and the public:—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

#### The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age. 2. Food and medicine given. 3. Appearance of the eye; of the coat; of the tongue and lips. 4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc. 5. Breathing, the number of respirations per minute, and whether labored or not. 6. Condition of the bowels and secretions of the kidneys, color, etc. 7. Appetite; regular, variable, etc. 8. Temperature of the body as indicated by the bath of the thermometer when placed between the body and the foreleg. 9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

#### THE TENNESSEE FIELD TRIALS.

NASHVILLE, Nov. 11, 1877.

AFTER three days of gloomy, drizzling, depressing weather, with a northeast wind which chilled the very marrow in one's bones, and made us apprehensive of a failure of the field trials to come off to-morrow, the clerk of the weather, however, relented, and yesterday sent us a bracing, spanking breeze out of the north, which soon swept away the lowering clouds and gave us a glorious sunset, the harbinger of fine weather, for our week's sport, in which our native pointers and setters are to contest with each other and settle the question of superiority with their foreign canine rivals, for whom their owners arrogantly claim the exclusive title to "blue blood." The Maxwell, where I am most comfortably lodged, is crowded with sportsmen from every quarter, each anxious for the triumph of his own kennel or section, and the excitement is already up to fever heat, more particularly on the issue between what a writer and importer called the American mongrels and the foreign blue bloods. I have had a most gratifying reception from Mr. V. L. Kirkman, the President of the Tennessee State Sportsman's Association, and Mr. Prechitt, the Secretary. These gentlemen will kindly afford me every facility and assistance for making you what I trust you will find to be a perfect report of the pending trial. They have, through the courtesy of General Hardin, secured several thousand acres of a magnificent country, amply stocked with birds, which have been vigilantly guarded by a mounted keeper in the employ of the association, and ample arrangements have been made for the transportation to the field of the sportsmen and their dogs.

I have devoted the whole of the morning to the inspection of the different kennels; among others visited was that of Mr. Gilling's, who has established himself here permanently. I should not wonder if Mr. Gilling's had the winning dog in Mr. George Colburn's magnificent dog Sank, by Foreman Taylor's famous one-eyed Sank out of Colburn's Kate, I believe. Young Sank is in superb condition, and will run high in the betting. His breaker is regretting the absence of Colburn's old Dash, to run in the trials with young Sank; the twain would certainly make the handsomest brace in the trial, and, as a brace, would be hard to beat.

Colburn's Bob, by Colburn's Dash out of Mullen's Belle, a superb fellow, is also here, but he unfortunately met with an accident, which will prevent his running in the trials. There are two other New York dogs entered by Dr. Fleet Speir, of Brooklyn, black, white and tan, both very handsome, with heads like Raymond's Pride of the Border.

As you go to press on Tuesday you can only publish the result of the first day, which I will send you by telegraph. I send the printed list of entries, corrected by Mr. Prechitt, the Secretary of the Association.

F. G. S.

ENTRIES FOR ANNUAL FIELD TRIALS SPORTSMAN'S ASSOCIATION, NASHVILLE, TENN.—The following are the entries for the puppy stakes, and eighteen months:

W. Tucker, of Arkansas, enters Kitten and Champ; Dr. Fleet Speir, of Brooklyn, St. Elmo; John Davidson of Monroe, Mich.; Afton; Chas. Turner, of St. Louis, Bersley and Biddy; J. H. Dew, of Columbia, Floss; P. H. Bryson, of Memphis, Gladstone; D. Bryson, of Memphis, King; Geo. W. Campbell, of Carter's Creek, Maury County, Tenn., Ida; J. K. Hughes, of Franklin, Tenn., Skip; Geo. W. Campbell, of Maury County, Floss. Entries for the Champion stakes, for all ages, prize \$500, to be run Tuesday: W. A. Wheatley, of Memphis, Firt and Countess; Van L. Kirkman, of Nashville, Tom, Jr.; Geo. W. Campbell, of Maury County, Buck, Jr., and Jo; L. R. Morris, of Garmesey County, Ohio, Mag; Geo. C. Colburn, of New York, Sank; Alfred Jenkins, of Baltimore, Hala; L. H. Smith, of Strathroy, Canada, Clip; D. C. Sanburn, of Baltimore, Mich., Nellie, winner of the Hampton, Ia., champion field trials; Dr. Fleet Speir, of Brooklyn, St. Elmo; Patrick Henry, of Clarksville, Pride of the South; P. H. Bryson, of Memphis, Whip and Gladstone; Dr. Fleet Speir, of

Brooklyn, Spiero; D. Bryson, of Memphis, King; John Davidson, of Monroe, Mich.; Chester; C. B. Whitford, of St. Louis, Thornton and Berkley.

Entries for the Dupont Powder Company Stakes for braces, to be run on Wednesday, prize \$250: W. A. Wheatley, of Brooklyn, Flirt and Countess; Dr. Speir, of Brooklyn, St. Elmo and Spiero; Van L. Kirkman, of Nashville, Tom, Jr., and Kate; Geo. W. Campbell, of Maury County, Buck, Jr., and Jo; L. B. Morris, of Guernsey County, Ohio, Mag and Dash; Geo. O. Colburn, of New York, Sank and Hala; L. H. Smith, of Strathroy, Canada, Pride of the South and Chip; P. H. Bryson, of Memphis, Whip and Gladstone; C. B. Whitford, of St. Louis, Thorsline and Berkley.

St. Louis Kennel Stake, for puppies under 12 months old, silver cup valued at \$50, to be run Wednesday: John Davidson, of Monroe, Mich.; Tyne; W. W. Tucker, of Arkansas, Champ; J. K. Hughes, of Franklin, Tenn.; Skip; J. H. Dew, of Columbia, Ill.

Nashville, Monday, Nov. 12.—Our correspondent in Nashville telegraphs us as follows: "The success of the meeting is beyond expectation. There are so many fine dogs to see that as yet I have no chance of writing in full. Of the puppies entered for the puppy stake so far, Mr. P. R. Bryson's pup, Gladstone, by Lowelle's Dan out of Petrel, is the only one which has made a full score. The performances of the other puppies entered, however, have been very good. The hospitalities of Generals Hardin and Jackson at Bellmeade are without stint or limit. The weather is delightful, the country magnificent, and birds abundant."

DOGS FOR TURKEY, GROUSE AND SQUIRREL SHOOTING.

EDITOR FOREST AND STREAM:

It is not uncommon to hear theoretical and cockney sportsmen sneer at squirrel shooting as boyish and beneath their dignity, and yet if they would give the sport a trial in the only way it should be pursued—that is, with a grooved rifle and a single ball—it is probable they would find it much more difficult than they fancy. To bring down a squirrel, shot through the head, from the topmost branch of a tall tree, is to most men quite as difficult as to stop the quick flying quail in mid-air. If some of the gentlemen who make such stunning scores at Conlin's would give the sport a trial, perchance they would find it quite as fascinating as the pursuit of any feathered game. I know I found it so in my youth, when, with keener eye and steadier nerve than I can boast of now, I could, with the old-fashioned long rifle of former days, carrying 180 to the pound, bring down a squirrel from the top of the highest trees in the Blue Ridge almost at every pop.

In your issue of October 25 you recommend a correspondent, D. C. B., of Keosauqua, to hunt squirrels with a small ear dog. Now, I hope you will permit a constant reader, who admires your paper as by far the ablest published in this country on field sports and those cognate branches of natural science, without which no man can claim to be a thorough and accomplished sportsman, to dissent from your advice to D. C. B., and here are my reasons: In the first place I object to cur dogs for any purpose on general principles, and had I the legislative power I would tax them all out of existence, for through their rascalities and villainies the nobler and more useful canine races are brought into disrepute.

Again, I most positively deny that curs, small or large, are the best for hunting squirrels. To establish such heresy you must first prove an impossibility—that your cur is superior to the thoroughbred in nose, stamina, intelligence and other desirable qualities. I have frequently shot both squirrels and grouse over small curs belonging to mountaineers in Virginia, and a few of these I admit were excellent, but the best of them would not compare with a pair of clever wire-haired Scotch terriers, belonging to my friend, De Witt Kent, of Maryland. The hospitable mansion of the late Governor Kent, on the western branch of the Patuxent, in Prince George county, was in the season much frequented by hunting and fishing parties, who would sometimes devote a day to the squirrels which abounded in the heavy timber on the river bottom. When this was the case these terriers would know it quite as well as the sportsmen, probably because the pointers were always put on the chain on these occasions. They would joyously scurry away to the woods, even before we left the doortep, and by the time we reached the outer gate, their vociferous yelps would announce the fact that a squirrel was treed; but this was not all; these clever little dogs were never guilty of lying, as squirrel dogs so often are, and the intelligence with which they would turn the game to the shooter was marvelous, and if the squirrel ever reached his hole, as he always aims to do, they would abandon the tree immediately, and seek elsewhere for a fresh trail.

Once owned a dog, presented to me by the late Commander Ned Byrne of the navy, so famous for his social talents, and you will be surprised to learn that this, the very best squirrel dog I ever saw, was an immense greyhound! One would imagine that, with his feeble-scenting powers, a greyhound was the last dog in the world for such a purpose, but in this breed of hounds the visual powers and phenomenal speed more than compensate for a defective nose.

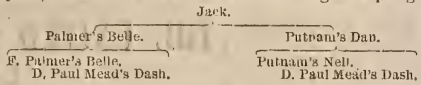
Mounted in air on his still-like legs, the greyhound commands a greater horizon than smaller dogs. Nothing within its range escapes his hawk-like vision, and his lightning speed compels the squirrel to take to the nearest tree, without making for his den as he invariably does when chased by a small and necessarily slow dog.

Again, a dog running by the scent will frequently take a cold trail and stop at a tree long after a squirrel has left it. With such a dog squirrel hunting is more vexatious than amusing. To the same inquirer you recommend the clumber spaniel for turkey and ruffed grouse shooting. Now though of a noble, rare, and exceedingly valuable and useful race, the clumber of all the spaniel family is probably the best fitted for hunting either of these birds, simply because he hunts true, a peculiarity for which he was chiefly valued by the Duke of Newcastle, who originated the breed at Clumber castle. Both the turkey and the ruffed grouse are essentially crest birds. The latter particularly is usually to be found on the roughest ground and in the densest cover; and, for hunting both birds, a cocker that throws his tongue freely is incomparably the best dog. He takes the trail of either bird and runs upon it, giving tongue the while, like a beagle on the track of a hare, until he flushes his game. The turkeys

will generally scatter in every direction, when the hunter makes a blind, and from its concealment slaughters the birds in detail as they come in obedience to his call. The grouse usually take to a tree, and, perching low, will remain, as it were, stupefied by the yelping of the eager cockers until several are shot in succession. And here let me conclude with the remark that in Maryland and Virginia, shooting grouse perched on trees is held to be perfectly legitimate, as in nine cases out of ten the very best shot can bag them in no other way.

F. G. S.

ROBINSON'S JACK.—This famous red Irish setter, so well known among sportsmen throughout the country, has again come into the possession of his former owner, Mr. Walter Humphrey, of Newark, N. J. Jack, now eleven years old, is to be made as comfortable as possible for the rest of his life. Our readers will learn with pleasure that he is to be photographed, like other celebrities. The following is his pedigree:



THE PHILADELPHIA BENCH SHOW, which is given under the patronage of the best gentlemen in that city, bids fair to be a grand success. Up to date several hundred entries have been made, a large proportion being sporting dogs. The prizes are of solid silver in each class, and are very liberal. Besides the regular prizes numerous special prizes have been offered, which will be competed for without extra charge. Every possible care will be taken of all dogs, competent men being in attendance day and night for that purpose. The judges are gentlemen of the highest position, and thoroughly conversant with the animals to be under their judging.

THE ENGLISH HUNTING FIELD.—The London Field, in its issue of October 27, gives its customary list, at the opening of the season, of the hounds, their masters, the huntsmen, the whips, the locality of the kennels, and the days of the meets. The whole statistics of the various hunting establishments, in England, Ireland and Wales, are presented. Starting with Her Majesty's noble staghounds of forty couples, of which the Earl of Hardwicks is master, which meets at Windsor and Maidenhead on Tuesdays and Fridays, Frank Goodall being huntsman, Ehrpurt, Hewson and Bartlett whips, the category closes with a dozen couples of beagles, which are the delight of Trinity College, Cambridge. The total of the dogs used in the hunts amounts to something like 20,000. Of course, the absolute number of dogs must be larger, as for purposes of breeding, and to make up for replenishing the kennels, a stock in hand must be ready to draw from. We should suppose, then, that England, Ireland and Wales are ready to turn out into the hunting field, of staghounds, foxhounds, harriers and beagles, fully 40,000 fine-bred animals. The famous Pytchley and Quorn establishments are about up to their former number in dogs. The Pytchley, of which Earl Spencer is master, hunts with 65 couples, and the Quorn, under Mr. John Coupland's guidance, has 58 couples. It is generally conceded that the Pytchley has the largest number of hounds in England, though the Meath hunt, Ireland, of which Mr. W. Newcome Waller is master, has 70 couples.

THE FINISHING SCHOOL FOR DOGS.—Mr. E. S. Wannaker, who is one of the most competent and painstaking dog-breakers in America, is now at Fort Defiance, Virginia, about seven miles from Staunton, where he is stopping at the private house of a personal friend of the editor of this paper, to whom a proper letter of introduction was given. His object in going to Virginia is to select the best ground for breaking his dogs on game; and as quail, woodcock and ruffed grouse can be found in abundance within twelve miles of his location his field is not restricted. We were induced to take a personal interest in Mr. Wannaker's enterprise because we wish to encourage one who is so conscientious to his patrons and devoted to his business as to leave no method untried, however severe or taxing to his sense of comfort or self-indulgence. We have no doubt but that his school for dogs is the very best, and that he will so prove it, when he returns his graduates to their owners, that he will have gained their fullest confidence and that of the dog-loving and dog-retaining fraternity of sportsmen. If he fails to satisfy we shall make the fact known. As far as we know, Mr. Wannaker is the only dog-breaker in this country who takes his pupils into game countries for practical instruction and a varied course of study. We are not aware that his method is followed in Europe. However, it matters not whether it is his own and original with him provided it proves its own value to those who wish to have their dogs well broken, both in house and field.

Besides his own dogs, Mr. Wannaker takes with him the dogs Leaf and Branch, both red Irish setters, by Plunket out of Stella; Promise, by Pride of the Border out of one of Mr. Dudley Olcott's bitches; Mr. Jno. P. Waters' imported orange and white setter, Ben Smith; Mr. E. A. Herzberg's Patri, blue Belton, by Pride of the Border out of Jessie; and Mr. F. H. Hall's red and white setter, Bess.

GUN SHY.—In the Chicago Field a Mr. Cyer finds some objections to the statement made in the "Sportsman's Gazetteer" as to the age when pointers or setters may become gun shy. Exactly on the same page of our Western contemporary there is a capital letter from Mr. S. H. Boughton, a good authority, who writes: "Mr. B. (Mr. Burges) thinks the idea of old trained dogs becoming gun shy a ridiculous one. I do not quite agree with him here, for I have known at least one old

dog to become gun shy." [The italics are our own.] Mr. Boughton's opinion is worth much more than Mr. Dyers'. In fact Mr. Fyer is a very meddling busybody. In time, doubtless, Fyer will gain wisdom and learn that, besides himself if Fyers, this question as to the age when dogs may become gun shy is indicated. So much for Fyer. If Fyer will read the FOREST AND STREAM AND ROD AND GUN he will find scattered through its pages many interesting facts in regard to the time when dogs may become gun shy.

GOOD STOCK.—Mr. M. Von Culin, of Delaware City, has written us that his field trial setter bitch, True (Prince-Dora), was bred to Carlowitz on the 12th ult. The same gentleman's Colleen has whelped nine puppies to Rufus II, all blood red. Mr. Von Culin will exhibit at the coming Philadelphia show Carlowitz, Laverack setter; Queen and True, field trial setter bitches; Jacques, red Irish setter dog, and the red Irish setter bitches, Colleen, Jane, Clytie and Moll III.

THE SAN FRANCISCO DOG SHOW.—Our correspondent writes us under date of Nov. 4th: "I visited the bench show last evening and was surprised to notice the number of superb dogs on exhibition: You know that although we are paying the greatest attention to our setters and pointers, still as we hunt deer nearer to home than you do in the East, we are devoting a great deal of our time to breeding dogs for the chase. In stag-hounds and grey-hounds, the show was superb. The Gordon setters were a fine lot. I really do not think that New York could show such a variety of hounds. In a later letter I will give you fuller details. D. S. L.

BILL.—P. S. Hackett, of the Kendrick House, Wareham, Mass., has sold his six-months' old white pup Bill to Mr. E. M. Coles, of Middleboro, for fifty dollars. Bill is out of Mr. Hackett's white Gip, and is sired by his celebrated white dog Sam, both being of pure English stock. Gip has now six dog sucklings, which are five weeks old, and strange to say she seems to grow fat, and is looking sleek and sound. I.

DOG POISONING.

SAN ANTONIO, TEXAS, NOV. 1, 1877.

EDITOR FOREST AND STREAM:

I write to condemn a certain class of criminals who laugh at the law—a class of dog poisoners. Last night some miscreant poisoned my English setter, Rob Roy, a fine specimen, which I brought from the North, and one of the best workers I ever saw. A number of valuable dogs have been poisoned here within a few months. That there should be some law protecting property of this kind there can be no doubt about. The State makes dogs property by taxation; why should not the State protect them by law? I have several horses, and not one of them cost me as much as my dog. I would much rather have lost one of my horses—all are good ones; not Texas ponies—than this dog. We have no protection against such rascality. If a man steals a horse in Texas he gets from one to fifteen years in the penitentiary. Yet he can destroy a dog which may have cost from three to five hundred dollars, and the owner has to swallow his grief and loss. I believe the true sportsmen of the country should take this matter in hand and see that the proper influence be brought to bear upon our legislative bodies so that proper laws might be enacted. I hope you will agitate this matter through the columns of your journal, so that our people will awake to the import-ance of legal advice, and strive to punish those who kill our dogs.

H. J. BISHOPHAM.

[If a dog is taxed it is certainly property and is acknowledged as such. We refer our Texan correspondent to former numbers of our journal, where the matter was fully treated. —Ep.]

DOG VS. PORCUPINE.

EDITOR FOREST AND STREAM:

Here is an incident of Rangeley Lake twelve years ago. We were three in number—two humans, one canine—encamped on a small island in Moosehmaguntic, near to a long stretch of dead water at lower end of a brook emptying into the lake. Plenty of ducks, plenty of fish, both lake and brook. The boys laughed at us like veritable lunatics all night, and the water was as clear as best glass. My mate on the day in question was gone away for an early morning fish in the dug-out. The dog and myself were asleep in the tent under four big pine trees. I was awakened by what I took to be heavy rain striking on the canvas, but which proved to be hiss of bark from the stem of the tree nearest the tent door. The dog was excited and looking up into the air. So I looked up too, and to my half opened eyes appeared an immense animal with fierce face coming down toward us. I was not long in giving the stranger the contents of my revolver, which falling to bring him to earth, I gave him one barrel of the duck gun, with the effect of minging a dog and a large mad porcupine in an indiscriminate row in the clearing in front of the tent.

Fur worn the day over quick to die time, however, and if ever a man was abused for a two weeks' time after that man was myself by my mate, because the shorter barbed quills were scattered in all directions, managing to insert themselves in our feet and legs at any odd moment, when for luxury the waiting boys were thrown aside and "the stockings which our mothers give us at birth" were used instead.

I never look on this porcupine's skull, now acting as pen-rack on my desk, without laughing at the wild ideas which came into my mind when first I saw him alive coming down that old pine tree with his quills well forward. Peace to his soul. SAWRONES.

A CARD.—C. S. Westcott, of Philadelphia, whose name has been published as one of the judges at the coming Philadelphia Dog Show, requests us to publish the following card: PHILA., Nov. 13, 1877.

EDITOR FOREST AND STREAM:

I would ask you to publish in your estimable paper that, owing to the basis upon which the coming Philadelphia local show is to be held, I am obliged to resign all positions. I was led to accept, believing that the interest at issue would not admit of my name being used as a patron or judge of the same. Very respectfully yours,

C. S. WESTCOTT.

Physicians diagnose ailments sometimes by very trifling signs. So with character; it is indicated by little moral straws. You may also detect the good, shrewd sense of people by noticing little facts about their household. If you see people use the new toilet soap, B. T. Babbit's Toilet Soap, you may pronounce them to be persons of the greatest discernment. Why? Because this soap has in it every requisite of absolute excellence—purity, innocuousness, delicacy of flavor, and a feeling on the skin like the breath of a zephyr.—[Ad.

TOO SMART BY HALF.—A police inspector on being informed that a restaurateur in his ball-wick was serving game out of season, visits the restaurant in muff and orders dinner. "Waiter," says he, "can you give me a salmi of partridge?"

"Sellingly, sir," replies the waiter, promptly, and yields to the cook: "Partridge for one."

The Inspector finishes his dinner leisurely and then says to the waiter, "Ask the boss to step this way a minute."

"What for?"

"I wish to notify him to appear in court tomorrow and answer for selling partridge out of season."

"O, I guess it ain't worth while bothering him about that."

"Do as I tell you. I am the Police Inspector, and have secured the necessary evidence against him."

"O, I spotted you and guessed what you were after. It wasn't partridge you had."

Police Inspector (uneasily)—What was it, then?

Waiter (cheerfully)—Crown.

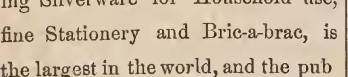
Tiffany & Co., Silversmiths, Jewelers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements.

TIFFANY & CO. are also the agents in America for Messrs. PATEK, PHILIPPE & Co., of Geneva,

of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones, General Jewelry, Artistic Bronzes and Pottery, Electro-Plate and Sterling Silverware for Household use, fine Stationery and Bric-a-brac, is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York.

LIQUORS.

**Piper Heidsieck**  
AND  
PIPER "SEC."



Big Bonanzas for all agents. THE SOUTHERN AGENTS' MANUAL, Atlanta, Ga., describes impartially the goods, etc., of all the best agents' houses in the United States. Scores of rare offers monthly. Agents choose from hundreds. On trial to agents or those desiring agencies only three months for three cents to pay postage. Nov 14

REVOLVERS, 7 SHOT, \$2.50 at MARSTERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

**Ronan's Metal Shell Cleaner.**  
Cleans fifty shells in ten minutes. No water used. Knives elastic, self-adjusting, prevent the slipping of wads. Is unequalled as a wad wiper by covering with an oiled cloth. For sale by all gun dealers, or sample sent free by mail on receipt of price, \$1.50; 10 and 12 boxes. J. F. RONAN, 738 Shawmut avenue Boston, Mass. (Liberal discount to the trade) Nov 8

**Williamson & Co.,**  
669 BROADWAY, N. Y. (formerly 817 Broadway.)  
Kentucky State Single Number Lottery. DRAWING NOVEMBER 30.  
5,880 prizes, \$300,000. Capital prize, \$50,000. Tickets \$10. Halves, \$5. Quarters, \$2.50. Eighths, \$1.25  
MANAGERS' EASTERN AGENCY—Williamson & Co., 569 Broadway, corner Prince St., New York. Nov 15

**CURTIS & HARVEY and DUPONT GUN-POWDER at MARSTERS,**  
125 Nassau street, New York, and 55 Court street, Brooklyn.

**For Sale Everywhere.**  
JOHN OSBORN, SON & CO.,  
45 Beaver street, New York,  
and  
44 St. Sacramento street, Montreal,  
GENERAL AGENTS.  
Oct 11

**3. B. GREENWOOD,**  
Manufacturer of Aquaria Greenhouse and Aquarium Cement, and dealer in Fish Food, Gold Fish, Water Plants, Fish Globes, and aquaria stock of all descriptions. Canaries, Cages, Rustic Baskets, Bird Houses, Sea Shells, etc., wholesale and retail.  
Nos. 11 1/2 to 13 COLLEGE PLACE,  
Near Murray St. New York, N. Y.

**H. L. LEONARD,**  
BANGOR, MAINE,  
Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.  
Split Bamboo Rods a Specialty  
Great reduction in prices. Trout rods, full mounted, \$30, formerly \$50; other rods in proportion. Every foot bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof ferrule," and warranted against imperfections in material and workmanship. Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancelwood. MADE TO ORDER.  
I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods.  
Also manufacturer of Patent Reels for Salmon and Trout Fishing. The lightest, strongest, and handiest Reels ever made.  
Full line of FISHING TACKLE always on hand.  
Send for circular and price list.  
167  
**DINGEE SCRIBNER,**  
Manufacturer of salmon and Trout Rods, Salmon and Trout Flies Casting Lines, Landing Nets, Gaffs, etc.  
Best Greenheart Rods at \$9, \$11 and \$13 each.  
Waterloo Street, St. Johns, N. B.  
372 6m

**The Ludlow Trout Co.**  
Will this year take from one to two million brook trout eggs (ready for shipment from Nov. 10 to Dec. 20) at lowest prices. Send for price list. Address  
B. FREEBURG, SUPERINTENDENT,  
Aug 23 3m Ludlow, McKean County, Pa.  
COMPETITION IS THE LIFE OF TRADE.  
**J. B. CROOK & CO.,**  
FISHING TACKLE,  
50 FULTON STREET, NEW YORK  
Makes the Immense Reduction.  
Greenheart Rods for Trout and Bass Fishing, \$15 to \$30. Ash and Lancelwood Rods for Trout and Bass Fishing, \$7 to \$12.  
Everything else in proportion. Goods sent C. O. D. to all parts of the United States and Canada.

**Lessons in Fly Tying.**  
I will guarantee to teach any gentleman the art of dressing flies in a few lessons. Address  
JOHN HAILY, 320 Henry Street, New York City.  
Flies tied to order from any pattern.  
Nov 11

**New Advertisements.**  
25 FANCY CARDS, snowflake, damask, etc., no 2 alike, with name, 10c. Nassau Card Co., Nassau, New York.  
GAME LAWS—New York, New Jersey, Penna., Delaware and Maryland. Pocket edition. Contains useful information for sportsmen. Sent by mail upon receipt of price—55 cents. E. F. VAN ZANDT, No. 200 Walnut Place, Phila.

**Ronan's Metal Shell Cleaner.**  
Cleans fifty shells in ten minutes. No water used. Knives elastic, self-adjusting, prevent the slipping of wads. Is unequalled as a wad wiper by covering with an oiled cloth. For sale by all gun dealers, or sample sent free by mail on receipt of price, \$1.50; 10 and 12 boxes. J. F. RONAN, 738 Shawmut avenue Boston, Mass. (Liberal discount to the trade) Nov 8

**Williamson & Co.,**  
669 BROADWAY, N. Y. (formerly 817 Broadway.)  
Kentucky State Single Number Lottery. DRAWING NOVEMBER 30.  
5,880 prizes, \$300,000. Capital prize, \$50,000. Tickets \$10. Halves, \$5. Quarters, \$2.50. Eighths, \$1.25  
MANAGERS' EASTERN AGENCY—Williamson & Co., 569 Broadway, corner Prince St., New York. Nov 15

**CURTIS & HARVEY and DUPONT GUN-POWDER at MARSTERS,**  
125 Nassau street, New York, and 55 Court street, Brooklyn.

**NEW YORK SHOOTING COAT.**

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

**MADE OF BROWN VELVETEEN.**

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$6.50. Also the best brown corduroy pants at \$10 per pair. I make only the one grade, as the cheapest goods do not turn brains and will not give satisfaction.

Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is The Best Yet. Coat, \$6.50. For full suit, \$14.00. I also make the Sleeveless Coat; Vest with sleeves if desired. Rules for measurement and samples sent upon application.

**F. L. SHELDON, Rahway, N. J.**

For Sale by Dealers in GUNS and SPORTSMEN'S SUPPLIES.

**THE UNITED STATES CARTRIDGE COMPANY,**  
LOWELL, MASS.

Manufacturers of the

CENTRAL FIRE, SOLID HEAD,  
BRASS SHELL, RE-LOADING CARTRIDGE,

Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.

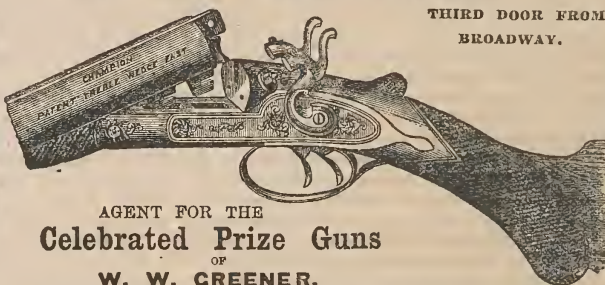
Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

**WALLACE & SONS, Agents, N. Y. City.**

**HENRY C. SQUIRES,**  
No. 1 CORTLANDT STREET,

THIRD DOOR FROM  
BROADWAY.



Winner of the Mammoth Silver Cup in 1876, presented by Mr. Purdy, bearing all best London makers.

Winner of London Gun Trial, 1875, bearing 100 guns.

AGENT FOR THE  
**Celebrated Prize Guns**  
OF  
**W. W. GREENER.**

These guns have been winners in every trial during the last three years, competing with all the first-class makers in England. The shooting of every gun is guaranteed, and prices as low as consistent with good work. Guns built to exact order of sportsmen. I keep the best selected stock of guns by all the other makers to be found in this city, including Scott, Webley, Remington, Parker and Fox. Marshall's new Glase Ball Trap, \$3; three traps, \$12. English-chilled shot, all sizes and in any quantities. Agent for Dittmar powder. Complete outfits for hunting and camping. Best Breech-Loader ever offered in the United States for \$35. Wholesale Agent for Holabird's Shooting Suits, and Camp Lounge Company.

ESTABLISHED IN 1837.

Consult your interest by sending for our revised and reduced prices.



**Excelsior**  
LATEST IMPROVEMENT.  
Double Treadle, including one doz. Saws, thirty inimitable Pret Sawing Patterns and prepared Wood, to the value of \$1. A new device for tightening Saws, Power Drilling attachment, Wrench, Oil Cup and Screw Driver. Sued, 800 strokes per minute. Saws, 1 1/2 inch thick. Price, complete, cast and delivered on board cars or at Express office, \$12.  
Saw only, without attachments, \$9.



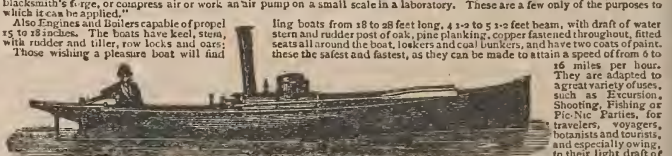
**Buffalo Pony Planer.**  
Nearly One THOUSAND in Use. Buffalo Pony Planer. Will cut itself and, pay expense of running in 2 days. Price from \$30 and upwards, each.  
**LIGHT MACHINES FOR PONY OR HORSE POWER.**  
The great success of these machines is unappreciated, and it may be confidently affirmed that no article has ever more clearly proved its superiority for the quantity and quality of its work than this. It is made in several sizes, and can be fitted up suitable for bullock, mule, steam or wind power, in addition to those above mentioned.



**SMALL STEAM ENGINES.**  
With Copper Boiler, to drive light Lathes, Scroll Saws, etc. Are all sizes from 1/4 up to 2 horse power; either plain castings, partly finished, or complete, ready for use.  
The "Scientific American" of June 20, 1875, says of the above, in an extended Editorial, introducing our manufacturer to the public: "It can turn wrenches, churns, washing machines, or ice cream freezers, run coffee mills, pump water through a house, actuate foot lathes, scroll saws or light hoisting machinery, run knitting or sewing machines, turn a grindstone or emery wheel, work ventilating or hand thrashing machine cutters, meat or feed choppers, or sausage machines, drive small blowers for pneumatic dispatch tubes in a building, or for a Blacksmith's use, or compress air or work an air pump on a small scale in a laboratory. These are a few of the purposes to which it can be applied."  
Also Engines and Boilers capable of propelling 15 to 25 horses. The boats have keel, stem, with rudder and tiller, row locks and oars; Those wishing a pleasure boat will find

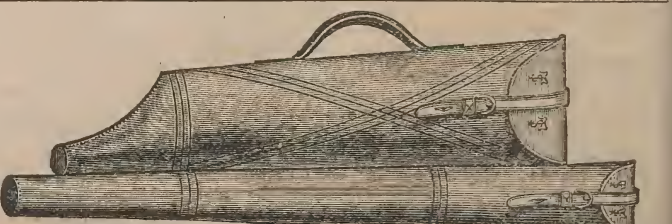


**Buffalo Excelsior Pony Planer and Mather.**  
Patented March 30, 1875.  
Best of its kind in use. Price, complete, \$275. Also Planing Machine Knives, which are recommended as superior and extra in quality.



water for exploring expeditions and surveying parties. The Engine and Boiler can be easily detached from the boat, and is then available for Agricultural, Mechanical, Commercial or Domestic requirements or for the use of Amateurs, when power is needed for running light machinery.  
Price of 20 foot boat, complete, \$125.00  
Price of Engine and Boiler, without boat, including driving pulley, 75.00

Illustrated Catalogue containing One Hundred Scroll Work Designs mailed to any address free on receipt of Stamp.  
**GEORGE FARR, BUFFALO, N. Y., U. S. A.**



Handiest gun case manufactured; made of heavy bridle leather, and in best style; can be carried same as a satchel everywhere; price \$6. Sent by express C. O. D. Also made of heavy waterproof canvas, lined with flannel; price \$2; sent by mail, postage prepaid. Address THOMSON & SON, 901 Broadway, New York. P. O. Box 1,018.



Publications.

FRANK SCHLEY'S AMERICAN



Partridge & Pheasant Shooting. Describing the Habits, Habits, and Methods of Hunting and Shooting the American Partridge—Quail; Ruffed Grouse—Pheasants, with directions for handling the gun, hunting the dog, and shooting on the wing. Price, \$2. Liberal discount to the trade.

Frank Schley, Frederick City, Md.

KNOW THYSELF A new Medical treatise, "The Science of Life, or Self-Preservation, a book for everybody. Price \$1, sent by mail. Fifty original prescriptions, either one of which is worth ten times the price of the book. Gold medal awarded the author. The Boston Herald says: "The Science of Life is, beyond all comparison, the most extraordinary work on Physiology ever published." An Illustrated Pamphlet sent FREE. Address DR. W. H. PARKER, No. 4 Bulfinch Street, Boston, Mass.

HEAL THYSELF

TAKE A LOOK

Sportsman's Gazetteer

GENERAL GUIDE, BY CHARLES HALLOCK, Editor "Forest and Stream and Rod and Gun."

896 pp., Price \$8. Tinted Paper, \$4; half-bound mo., \$5.

A complete Dictionary for Sportsmen. Every-body wants it that has a dog, gun or fishing rod.

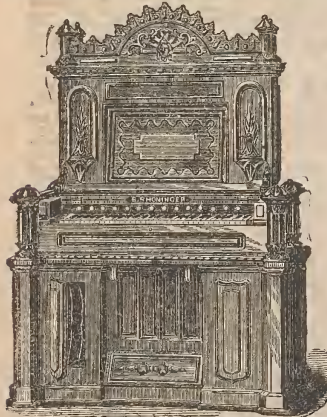
A complete description of all kinds of Game, Fish etc. Field Sports, Woodcraft, Angling, Fly Tying, Dog Breeding, Diseases and Treatment, Boating and Boat-building.

Several thousand localities where game and fish are to be found. Nothing of the kind ever before published worth ten times the price.

PUBLISHED BY

FOREST & STREAM PUBLISHING CO. 111 Fulton street, New York.

SHONINGER ORGANS.



PRONOUNCED UNANIMOUSLY AS THE Best Instruments.

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:

"The B. SHONINGER ORGAN CO.'S exhibit as the best Instruments at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, less liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either shrink, swell or split." THE ONLY ORGANS AWARDED THIS RANK.

This Medal and Award was granted after the most severe competition of the best makers, before one of the most competent Juries ever assembled. New styles and prices just issued, which are in accordance with our rule, the BEST ORGANS for the least money.

We are prepared to appoint a few new Agents. Illustrated Catalogues mailed, postpaid, upon application to

B. SHONINGER ORGAN CO., 97 to 123 Chestnut Street, NEW HAVEN, CONN.

SHELLS LOADED FOR PARTRIDGE, QUAIL, WOODcock and SNipe, \$4 per hundred, at MARSTERS, 125 Nassau street, New York, and 65 Court street, Brooklyn.

Gunpowder.

Warren Powder Mills,

MANUFACTURERS OF BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS—Eureka, Continental, "Border Rifle," Snap-shot, and Warren Sporting Cannon and Musket, U. S. Standard. The above can be had of the dealers, or at wholesale at the office, 27 Doane street, Boston, Mass., and of the agents, JOHN P. LOVELL & SONS, corner of Washington, Cornhill and Brattle street, Boston, Mass. 1919

HAZARD POWDER CO. MANUFACTURERS OF GUNPOWDER.

Hazard's "Electric Powder," Nos. 1 (fine) to 6 (coarse). Unsurpassed in point of strength and cleanliness. Packed in square canisters of 1 lb. only.

Hazard's "American Sporting," Nos. 1 (fine) to 3 (coarse). In 1 lb. canisters and 5 1/2 lb. kegs. A fine grain, quick and clean, for upland prairie shooting. Well adapted to shot-guns.

Hazard's "Duck Shooting," Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 5 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzle breech-loaders.

Hazard's "Kentucky Rifle," FFG, FFG, and "Sea Shooting," FG, in kegs of 25, 12 1/2 and 5 1/2 lbs, and cans of 5 lbs. FFG is also packed in 1 and 5 lb. canisters. Burns strong and moist. The FFG and FFG are favorite brands for ordinary sporting, and the "Sea Shooting" FG is the standard rifle powder of the country.

Superior Mining and Blasting Powder. GOVERNMENT CANNON & MUSKET POWDER; ALSO, SPECIAL GRADES FOR EXPORT OF ANY REQUIRED GRADE OR PROOF, MANUFACTURED TO ORDER. The above can be had of dealers, or of the Company's Agents in every prominent city, or wholesale at our office, 88 WALL STREET, NEW YORK.

THE New Dittmar Powder.

THE CHAMPION POWDER OF THE WORLD For all off-hand shooting at short and long ranges. Unsurpassed for Cleanliness. Pleasant to shoot on account of little recoil and report. Desirable for hunting on account of little or no smoke. Unequaled for rapid firing, as it does not foul and heat up the barrel as black powder. Great accuracy, penetration and good pattern. Safer than black powder. Address

CARL DITTMAR, NEPONSET, MASS.

ORIENTAL POWDER MILLS MANUFACTURERS OF ALL KINDS OF GUNPOWDER

Office—13 BROAD STREET, BOSTON.

BRANDS—DIAMOND GRAIN. FALCON DUCKING. WILD FOWL SHOOTING. WESTERN SPORTING. (Oriental Rifle.)

The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES.

J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. Cobb & Wheeler, Agents, 2 State St., Chicago, Ill. C. J. Chapin, Agent, 97 Locust St., St. Louis, Mo. Agencies in the principal cities in the United States.

GUNPOWDER

DEAD SHOT, NE PLUS ULTRA, TELEGRAPH, DUCK SHOOTING.

The above celebrated Brands are manufactured by the AMERICAN POWDER CO., 233 State Street, Boston.

GENERAL WESTERN AGENTS: E. B. RAMBO, Chicago, Ill. F. G. GODDARD, St. Louis, Mo. M. BARE & Co., Cincinnati, O. Oct 4

N.Y. Newspaper Mailing Agency With the latest Improved, Newspaper Folding and Mailing Machines, No. 13 Spruce street. JAMES BRADY, Manager and Proprietor.

Sportsmen's Goods.

THE "Boston Shooting Suit"

Is manufactured only by

G. W. SIMMONS & SON,

BOSTON.

Flexible, Waterproof, Tan-Color, Dneck.

Each article—coat, trousers, vest and hat—bears the name and manufacturer's address stamped upon it, and no snit is genuine without it bears this imprint.

The suit can be sent, securely packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit.

We make no discount except to the trade. We make but one quality, and that is the VERY BEST. The price of the suit complete is \$13.

The suit consists of coat, trousers, vest and choice of either cap with havelock, or hat.

The material is of the best quality of dneck, waterproofed by a patent process. The color is that known as "lead grass shade."

The seams and pocket corners are copper riveted and nothing is neglected to make the whole suit complete in every way.

This is what one of our best sportsmen says of it, writing from camp: "Miscrable, drenching rain, pouring down in a perfect deluge, as if a second flood had come upon the earth, two portages to cross, and a swamp between them; that was the prospect before we reached our camping ground. Such a swamp, too; almost impassable, for where the ground was firm was an almost impenetrable thicket of thorns and what not, that looked as if it would tear you to pieces. Well, we got to our camp, and I must confess I was agreeably surprised on my arrival. Although I had been nearly eight hours under incessant rain, laboring and striving along under the adverse circumstances above mentioned, yet I found myself comparatively dry, and my clothes without a tear. For the benefit of our brother sportsmen, let me advise one of Messrs. Simmons' (of Boston, Mass.) Waterproof Suits. Oh! what a relief it was to find one's tobacco was dry, and that one could light a pipe; that you could laugh at your miserable friend, who stood shivering and shaking as if he had the palsy; and then, next morning, oh! what fun it was to see him mending his clothes, while I had not a tear to complain of. Ventilation, also, that great bugbear of waterproof suits, is legislated for in the most ingenious manner. No sportsman should fail to supply himself with a suit which is at once cheap, practical, and will last an almost indefinite time."

Our New Overcoat—The "Plevna,"

Water-proof, Mildew-, roof and Moth-proof, is attracting great attention. It is made and sold only at Oakhall, Boston. The price is \$13.

It is a long overcoat made to wear to cover, or when driving or walking in stormy weather. It is perfectly waterproof, thoroughly ventilated, and just the garment that every sporting man should have.

Our Leather Jackets and Vests

are the great wind protectors. They are made from soft, pliable black leather, lined, and sell at \$9 and \$7.

Our Flexible Tan- Colored Waterproof Leather Coats and Breeches

are considered the finest things ever made. They sell at \$22 and \$15.

An illustrated circular, containing full description of each garment, with sample of the material from which made, will be sent free on application.

G. W. SIMMONS & SON, OAK HALL, BOSTON, MASS.

Sportsmen's Goods.

Attention, Sportsmen!



Each Loader adapted to 10 and 12 gauge metal or paper shells of any length, each shell being accurately charged and wadded complete in one operation. Amount of charge readily adjusted. Highly indorsed by sportsmen and the press. Having perfected arrangements for manufacturing in large lots, we have reduced the price to \$46. Manufactured only by CAMP & WISE, Stoneington, Banc County, Wis. All orders for sample loaders must contain remittance.

STONE'S Sporting Emporium,

No. 213 South Fifth Street, Philadelphia. PARTICULAR ATTENTION PAID TO LOADING SHELLS.

Taxidermy in all its branches. Repairing of Guns, Rifle, Pistols and Fishing Tackle a specialty.



JEWELERS AND SILVERSMITHS,

HARTFORD, CONNECTICUT, DEALERS IN Diamonds, Silverware, Watches, Jewelry, etc. IMPORTERS OF FRENCH, GERMAN, AND ENGLISH FANCY GOODS.

SPECIAL ATTENTION GIVEN TO THE MANUFACTURE OF APPROPRIATE DESIGNS FOR Shooting, Boating, Racing, and other Prizes.

OUR ILLUSTRATED CATALOGUE,

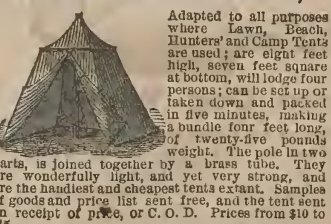
CONTAINING Three Dozen Wood Cuts of the above and other articles in our line, and including the GAME LAWS OF CONNECTICUT, Mailed to any Address, on receipt of 50 CENTS.

RUSHTON'S

HUNTING & PLEASURE BOATS AND CANOES.

The LIGHTEST sporting boat in the world. Weight, 25 pounds and upward. The smallest size will carry two persons. Cedar sliding, oak keel, etc. (do not fold up). CANOES, open or decked, weight 35 pounds to 60 lbs. Send stamp for new Illustrated Circular. J. H. RUSHTON, Manufacturer, Canton, St. Lawrence County, N. Y.

Gale's Patent Tents,



Adapted to all purposes where Lawn, Beach, Hunters and Camp Tents are used; are eight feet high, seven feet square at bottom, will lodge four persons; can be set up or taken down and packed in five minutes, making a bundle four feet long, of twenty-five pounds weight. The pole in two parts, is joined together by a brass tube. They are wonderfully light, and yet very strong, and are the handiest and cheapest tents extant. Samples of goods and prices list sent free, and the tent sent on receipt of price, or C. O. D. Prices from \$10 to \$15.

GALE & CO., Boston, Mass.

C. O. & B. ZETTLER, GUNSMITHS AND RIFLE GALLERY, 307 Bowery, New York.



*Sportsmen's Routes.*

**A BUFFALO HUNT**

—ON THE—

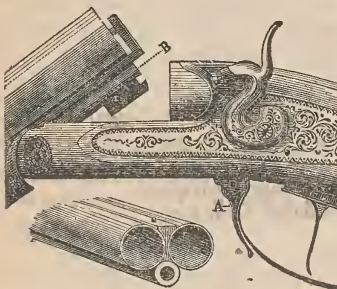
**Atchison, Topoka and Santa Fe Railway.**

**THE NEW ROUTE FOR KANSAS & COLORADO**

**SPECIAL ATTENTION TO SPORTSMEN.**

For maps, tickets, and gen'l information, apply to L. H. NUTTING, Gen'l Eastern Agent, 254 Broadway, New York, Gen'l Pass. Agent, } Topoka  
T. J. ANDERSON, Gen'l Ticket Agent, } Kansas  
W. F. WHITE, Gen'l Ticket Agent, } Kansas

**Guns, Rifles, Etc.**



**Breech-Loading Guns.**

(TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

**PRICES.**

- Three barrel, \$75 to \$250.
- Double barrel shot guns.
- Damascus barrel, \$50 to \$200.
- Twist barrel, \$85.

SEND FOR NEW CIRCULAR.

W. H. BAKER & CO.,  
Syracuse, N. Y.

**Sportsman's Depot.**

(ESTABLISHED 1836.)

First premium at World's Fair at New York and Centennial Exhibition.



**JOHN KRIDER,**

N. E. Cor. Second and Walnut Sts., Phila.

**GUNS, RIFLES, PISTOLS,**

Fishing Tackle, Rods, Reels, Lines, Hooks, Flies, Leaders, Squoods, Artificial Bait, Fly Books, Etc., Etc.

Salmon, Bass and Trout Flies Made to Order.

ALSO

"Kriders" Celebrated Center Enamel Spilt and Glined Bamboo Rods.

Birds' Eggs and Birds' Skins in Great Varieties—Taxidermy in all its branches.

Spratt's Patent Dog Biscuits.

Repairing of all kinds. mar-17

E. THOMAS, JR.,

**GUNS, PISTOLS, SPORTING GOODS,**

174 South Clark Street, Chicago, Ill.



**THE NEW AMERICAN Breech-Loading Shot Gun**

For close hard shooting excels all others. Send for circular. Duck guns, extra heavy, a speciality. HYDE, SHATTUCK & CO., Mfrs., Hatfield, Mass. Sept 6m.

*Amusements, Etc.*

**Zoological Garden.**

FAIRMOUNT PARK, PHILADELPHIA.

Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. jan6 17

**THE GREAT NEW YORK AQUARIUM,** Broadway and 35th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 belt-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments.

**WHAT PRAIRIE OIL IS BEING USED FOR.**

MR. KEWARD PHILIP, late Dramatic Editor *Brooklyn Eagle*, Brooklyn, N. Y., was unable to walk without the aid of crutches, owing to a severe attack of Rheumatism. After the third application of PRAIRIE OIL the crutches were thrown aside, he having no further use for them.

Says the Proprietor of Niblo's Garden, New York: "PRAIRIE OIL gave me relief from inflammatory rheumatism after first application; and after the third I had no further use for my cane."

PRIOR RORKE, Esq., ex-Building Inspector, DeKalb avenue and Fort Greene Place, Brooklyn, says: "For acute or inflammatory rheumatism it is a wonderful remedy; has been in use in my family for over a year."

M. C. EDEY, Esq., the well-known chemist, 319 Court st oct, Brooklyn, manufacturer of Edey's Carbolic Troches, etc., says: "I find PRAIRIE OIL to be a most wonderful preparation in cases of rheumatism, having seen it tested in a case of years' standing. The patient obtained relief at once, and was ultimately cured."

MR. JOHN H. SNEDEKER, of Telfair & Snediker, oil merchants, 105 John street, New York, was cured of Pleurisy by the use of PRAIRIE OIL.

MR. G. PADDON, tobacco merchant, 592 Fulton street, Brooklyn, lost the use of his right leg by Sciatica, got relief at once after first application of PRAIRIE OIL. This gentleman had become so depressed by his affliction that he had given up all hopes of recovery.

CAPT. JOSEPH LA FIURA, Merchant Court, near Remsen street, Brooklyn, was cured of a stiff joint, of years standing, after a few applications of PRAIRIE OIL.

MR. BERTSON, publisher, 16 Beekman street, New York, says: "I find PRAIRIE OIL to be infallible in many serious complaints."

PRICE FIFTY CENTS AND ONE DOLLAR PER BOTTLE. Ask your Druggist for it.

P. O. Box 2907. "THE PRAIRIE OIL Co.," 132 Nassau St., N. Y.

Sent prepaid by express on receipt of ten cents additional. SEND FOR CIRCULAR.

**DON'T PASS THIS BY.**

STODDARD'S CARTRIDGE-LOADING IMPLEMENT, COMBINING ALL OTHER TOOLS AND FOR ALL SHELLS.

Length, 4 1/4 inches; weight, 10 ounces, and nickel-plated. Price, \$6.

Recommended by FOREST AND STREAM AND ROD AND GUN, Boone, Recapper, Will Wildwood, Ira A. Payne, and others. Liberal discount to the trade. Send postal order to

C. J. STODDARD & CO.,

Lock box 192, Washington, D. C.

**TO SPORTSMEN IN GENERAL!**

**Headquarters Bohemian Glass Works, 214 PEARL STREET, NEW YORK.**

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the service of that well-known Sportsman,

**IRA A. PAINE,**

to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell.

In offering this new ball to the public it will require very little introduction, as in no instance where it has been exhibited has it failed to take the place of all others, and is to-day the only perfect substitute for a bird in use.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300 or boxes of 500. Send for price list. We intend offering special inducements to the trade.

**Capt. Bogardus' Patent Glass Ball, Trap and Rough Balls.**

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

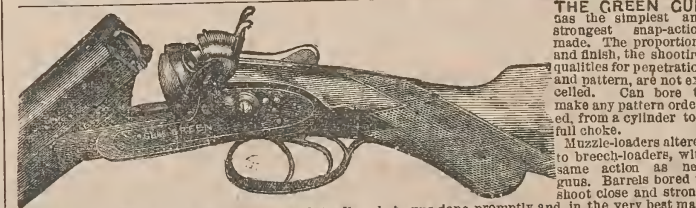
SPORTSMEN'S CLUBS AND AMATEURS.

THE PATENT ROUGH BALL—The only Ball that will break sure when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 13, 1877.

**Geo. E. Hart & Co.,**

NEWARK, N. J.

TRADE SUPPLIED.



Price \$45. Re-boring and repairing breech-loading shot-guns done promptly and in the very best manner. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Aug 30 17

**C. M. BRENNAN,**

OLD KENTUCKY BOURBON & MONONGAHELA,

40 South Clark Street, Chicago.

**HAMMOCKS**

FOR LAWNS AND EXCURSIONS



Tents, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seetees, etc. Send for Illustrated Circular. G. WEBSTER PECK, Manufacturers' Agents, 110 Chambers st., N. Y.

**THE ECLIPSE LOADER.**

Loads sixteen shells at once. Occupies a space ten inches long, six high and seven wide. The rapidity with which this loader works, the saving of labor, its simplicity and cheapness, must commend it to every owner of a breech-loader. PRICE \$4, with liberal discount to the trade. Send for circular. Address

TODD, SCHENCK & CO.,

84 West Lombard Street, Baltimore, Md.

**UNION SQUARE HOTEL,**

UNION SQUARE, Corner 16th Street, New York.

A. J. DAM & SONS, Proprietors.

SHELLS LOADED TO ORDER at MARSERS, 125 Nassau street, New York, and 55 Court street, Brooklyn.

**KNAPP & VAN NOSTRAND,**

POULTRY AND GAME,

Nos. 259 and 299 WASHINGTON MARKET, N. Y.

**A New Wad.**

The "Fibre" wad will give a better penetration and pattern than Eley's wadding. It is elastic and plastic, and will hold the load securely in brass shells. Will not take fire or blow to pieces. Price per box of 250, 25 cents for No. 10 and No. 12, 30 cents for No. 8. Sample sent by mail on receipt of price.

LIBERAL DISCOUNT TO THE TRADE.

DELAWARE CARTRIDGE COMPANY

WILMINGTON, DEL.

*Sportsmen's Goods.*

**W. H. HOLABIRD,**

Manufacturer of

**Specialties in Clothing FOR SPORTSMEN. Valparaiso, Ind.**

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent by mail, post-paid, \$6.

Holabird's New Game Bag; weighs 12 ounces. The most convenient and coolest garment ever offered to Sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2.

Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style. Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods. Jy12 17

**Sportsmen, Attention!**

KEEP YOUR FEET DRY.



The only premium awarded by the Centennial Commission, Philadelphia, 1876, for Alligator Waterproof Boots and Shoes.

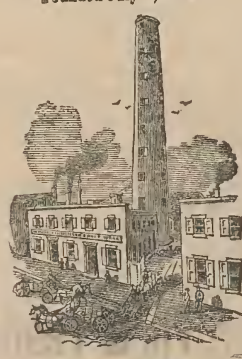
Goods sent to all parts of the U. S., C. O. D. Catalogues containing full instructions for self-measurement sent free on application.

503 Broadway, New York.

**GOOD'S OIL TANNED MOCCASINS.**

The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine. MARTIN S. HUTCHINGS, P. O. Box 368, Dover, N. H. (Successor to Frank Good.) W. HOLBERTON, 102 Nassau St., N. Y., Agent.

Founded July 4, 1803.



Thos. W. Sparks,

**Shot & Bar Lead MANUFACTURER.**

Office 121 Walnut Street Philadelphia.

**Magic Lanterns and Stereopticons.**

E. & H. T. ANTHONY & CO., 591 Broadway, N. Y., opposite Metropolitan. Stereoscopes and Views; Graphoscopes, Chromos and Frames; Albums, Photographs of Celebrities, Photographic Transparencies, Convex Glass, Photographic Materials. Awarded First Premium at Vienna and Philadelphia. dec25

**Sportsmen's Headquarters FOR WINES, LIQUORS AND CIGARS.**

Outfits for yachting. The camp or field a specialty. Olives by the case, gallon or bottle.

THOS. LYNCH, Importer,

99 NASSAU ST., Bennett Building, New York.

Sept 17

# FOREST AND STREAM

## ROD & GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

NEW YORK, THURSDAY, NOVEMBER 22, 1877.

Volume 9.—No. 16.  
[No. 111 Fulton St., N. Y.]

Terms, Four Dollars a Year.  
Ten Cents a Copy.

For Forest and Stream and Rod and Gun.

### THE TWO NAMELESS SONG-BIRDS OF LABRADOR.\*

BY thine unrequited shore,  
Silent, savage Labrador,  
Welcome to the stranger's ear,  
Come these bird-notes, soft and clear!  
When the dawning skies are red,  
When the evening's shades are spread,  
Singing ever, sweet and strong,  
Swells the silver tide of song.

Haply ne'er in Southern skies  
Rise your tuneful melodies;  
Nameless minstrels, thanks we pay  
For each merry roundelay.  
Sure no other note of bird  
In this wilderness is heard;  
Forest, mountain-side and plain  
Echo to no sweeter strain.

When the Winter reigns supreme  
Over Arctic waste and stream,  
When the rippled river's breast  
Chills in adamantine rest,  
When the slanting snows and sleet  
On these forest regions beat,  
Wither, little minstrel friend,  
Doth your far migration tend?

Doth some sunnier nook of earth  
Claim you as its place of birth?  
Did some spicy grove of palm  
Shield your cradled nest from harm?  
If so, haste on frightened wing  
To those realms of endless Spring,  
For white Winter, weird and drear,  
Soon, tempestuous, will be here.

ISAAC McLELLAN.

For Forest and Stream and Rod and Gun.

### A Fortnight in the Nova Scotian Backwoods.

A FORTNIGHT seems but a brief space, yet much may be done and seen in that time. Some time ago, on my first arrival from England, I had the good fortune to join an expedition sent to report upon the state of the timber on the Admiralty Reserves in the western part of the province, and I was introduced for the first time to the pleasures of a forest life in a snug little camp, pitched in a charming nook beside the limpid waters of the ever-winding Roseway, a short distance to the northward of the secluded village of Shelburne, on our rock-bound Atlantic coast. It would be useless for me to dilate upon the feelings of one, who fresh from the cultivated vales of Old England, finds himself suddenly placed in the midst of the "forest primeval," with no sound of civilization to mar the sweet stillness which reigns amid these Western wilds; and especially upon those of a naturalist, who loves to look upon nature in her pristine garb; to see the land untouched, and the trees and shrubs in every stage of life and decay, just as they have lived and died through successive ages; to listen to the unknown sounds and cries proceeding from animals and birds, and participate in the many other events hourly taking place as he journeys on through those trackless solitudes; for it may be truly said that his cup of pleasure is filled to overflowing, and every moment of his time occupied in marking and studying the changing scenes which at every step burst fresh and enchantingly upon his wondering view.

It was on a fine summer's day, toward the close of the month of August, a date which will ever remain stamped on memory's pleasant page, that, accompanied by two worthy representatives of Her Majesty's forces, naval and military, I was ushered into the camp of which I have spoken. I stood upon the bank of a rippling stream, and the first object that caught the eye was the stalwart form of the camp steward, wielding an axe with such power and effect as to make the huge log he was splitting for the night's fire shiver under the strokes, and cause the surrounding forest to ring with their echoes; while near a fire, burning briskly between two granite rocks, stood

the form of a veritable Indian, reclining in indolent ease over the burning brands, above which hung the stock-pot from which the steam was puffing, sending around a goodly smell, which made the appetite sharpen as we thought of the eatables within. And then the camp itself—a rough affair it looked. Two slender poles, some ten feet or so apart, placed upright, a cross pole lashed to them a few feet above the ground, then with their butts resting on this cross pole and sloping back to the ground, were laid other poles and branches of trees, ferns, etc., strewed all over the whole, forming a roof, which, although not waterproof, helped to keep off the falling dew at night. The sides were filled in with twigs and brushwood, while the floor of this primitive domicile was covered with a thick layer of spruce branches, the smaller sprays on top, to render the couch more comfortable, and then the occupant had to spread his blanket, and make himself as much at ease as circumstances would permit. So we commenced our forest life.

From Roseway River camp we journeyed to the northward, and camped again on a small point of land which jutted out into a large lake called "Long Island Lake," and a prettier spot could scarce be conceived. Before us lay the lake, whose mirror-like surface, scarce ruffled by the breeze, was dotted over with small islands, clothed with spruce and pine; while the evening sun, hot and powerful, reflected their shadows far down into the depths below; and as the shades of evening drew around, and the orb of day sank in majestic splendor behind the dark mass of forest to the westward, the camp fire began to cast a ruddy gleam of light upon the surrounding objects. The fog, now rising from the lake, caused a chilly feeling to creep over us, and more wood heaped upon the burning brands caused the sparks to fly up like miniature rockets in space, while many flames poured out from our pile of bulky logs, until bursting up in one grand sheet of blazing light, it dazzled with lurid glare the neighboring forest, and our company all seated around the seething mass busily commencing the evening meal.

From this camp we one day made an excursion to the eastward, in the neighborhood of Jordan River, and found the whole district to be densely wooded with hemlock, spruce and pine. Indeed, of these species of conifers the forest in the vicinity of Shelburne appears to be almost wholly composed, and it is not until you arrive some fifteen miles up the country, that groves of maple and oak are seen. The country around Shelburne bears evidence of the ravages of fire several years ago, the present growth of timber being but small.

An island of an acre or two in extent stands about the centre of Long Island Lake, and is known as "Indian Island," from the fact that in years gone by, the Indians, who had a stationary camp above this lake, buried their dead here. And surely no fitter resting place could have been found for those children of Nature, than here beneath the sombre shade of pine and spruce to take their last long sleep in the full hope of awaking in the happy, yet visionary, hunting grounds they suppose to be in a brighter and better world beyond the sky. It would appear that the Indians have almost entirely left this part of the province, for only two or three live in the district, one of whom, Peter Paul, accompanied our party the whole journey, and proved himself as generous, noble hearted a fellow as ever smoked the calumet of peace. To the absence of Indians may no doubt be attributed, in a great measure, the large number of bears, and the presence of beaver in the vicinity of the granite hills midway across the country, called by some "The Blue Mountains;" but more of these presently. From this camping ground we journeyed along to the district of Sugar Loaf Hill, a fine grove of hard woods, birch, beech, oak and maple. It was on the further side of this hill that we bade adieu for a while to civilization. Embarking in a rather frail boat upon a lake, we pulled, not without sundry misgivings as to the probable termination of the voyage, for some low marshy ground on its northern shore, and happily succeeded in reaching the mouth of a small river, up which we had to go; but we had not gone very far before we found that our bark must be lightened, and all jumped out and pushed her up the shallows until we came to a large open savannah of considerable size, on which grew luxuriant grass. Few trees were to be seen about here, and those of a very stunted growth, the most common being the alder. Leaving our boats about midway through the plains we shouldered our packs, which were far too heavy, and made for the northwest end of it,

where we entered the thick forest again. Peter Paul having called a halt, addressed us in a very fatherly manner, to the effect that we had better look to our weapons, for as he said, "You don't know what be about where we are going." Having complied with his request we started afresh, and after some pretty bad traveling arrived about sundown at a small lake at the southern base of the granite plateau. Here we found an old log hut, which had been erected some time back by lumberers, and made it our home for two or three days, while we surveyed the country around. This lake from the quantity of small, flat stones around its margin, was called Whetstone Lake. The southern shores of this lake are clothed with a heavy growth of timber, which appears to have escaped the extensive fire that raged over the whole extent of the Blue Mountain range some years ago. The timber is composed of hemlock, spruce, maple and birch, with an underwood of withe-rod; and near the water an abundance of fern of two species, the larger being the well-known *Ornunda regalis*.

We may here remark in passing, that our Provincial maps are at fault in regard to the route we took, for not a lake or river is marked upon any of them in that quarter, whereas the country abounds with lakes and streams, some of good size. We traveled as near as we could northwest from Shelburne, but owing to the swamps and lakes we had to deviate at intervals. The land from the district of Long Island Lake is very level, and from what I could judge, is capable, when cleared, of extensive cultivation, particularly that portion in which is comprised the open savannah I have mentioned.

Our first excursion from the camp at Whetstone Lake led to the rocky slope of the Blue Mountains, which lay in full view before us, and on reaching the elevated ground one of the Indians sighted a bear which was quietly ambling along among the blue berry bushes, regaling himself on the ripe and luscious fruit. It was at once decided to stalk him true highland fashion, and off we set. The Indians arriving within range first sent a bullet through one of his feet, as we afterwards found. Turning round, the fellow made right at C—and myself, standing together some forty yards below. On he came with a growling noise, and when close to us showed a fine array of teeth, which we would have preferred viewing after his decease. There was nothing for it, however, but to stand our ground when "crack" went my friend's ponderous Lancaster, and with it went the massive conical ball which caused poor bruin to change his course, for with a bound he swerved to the right and was lost in a thicket of birch and alder. Proceeding cautiously along, we found him at last stretched out in a little hollow—and a huge beast he was, measuring from tip to tip seven feet, two inches. We must here mention a curious fact which we consider worthy of note. On running hurriedly from boulder to boulder we slipped and fell through a hole, with the knee-cap against a rock. The knee instantly swelled up and gave great pain, and we could barely drag along, when one of the Indians said if rubbed with bear fat it would soon be right again. When skinning the animal he cut off a piece, and we rubbed the part well, and, singular enough, in a quarter of an hour the swelling subsided almost as quickly as it had risen, and we were enabled to walk back to camp. The Indians have a very ready way of transporting bear meat. Cutting it up in small pieces they fold up the bear skin neatly with the pieces within, and tie the whole with bands of withe-rod (*Viburnum*); and with the same bands secure it across their shoulders as a pack, leaving the arms free for action. Bears were numerous at this spot, and were no doubt attracted by the vast quantities of ripe berries, particularly the huckle-berry and blueberry (*Gaylussachia resinosa*) and (*Vaccinium canadense*), the former in great abundance. The trees and shrubs which clothe the sides of this rocky range are principally dwarf birch (*Betula nigra* and *B. papyracea*), alder (*Alnus viridis*), interspersed with spruce (*Abies alba* and *rubra*), and dead pine (*Pinis strobus*). Under stones in Whetstone Lake I found several small leeches (*Hirudo*), one of which was of a whitish color. The larvae of a caddis fly were abundantly composed of pieces of weed and granite sand. We noticed that the bird droppings, which were upon almost every boulder on this range, were of a dark blue color, caused no doubt by their feeding at this season almost wholly upon the berries of the blueberry and huckle-berry. The shores of Whetstone Lake were covered with a beautiful granite sand, nearly white.

As we are now in the most famous district in the province

\* Some salmon-fishing friends of the writer, as recorded by Genio C. Scott in his book on fishing, were constantly serenaded by two little, unknown, bright plumaged birds that haunted the woods around their camp.

for bears, perhaps it will be well to make a few remarks upon the natural history of the black bear. The bear comes out of his winter's den as soon as the snow disappears, generally about the end of April. The bear dens by himself. The she bear cubs about the first week in February, and the young are at first about the size of a common squirrel (*Sciurus hudsonicus*). They obtain nourishment from the mother until about the latter end of June, and den with her through the next winter, remaining with her till two years old, and leave her for good when she leaves her den the second of spring after birth. Bears are fat when they leave their dens in spring, but soon get poor, finding but little food at that time of year. It is at this time that they are apt to commit forages upon the flocks of the back settlers. The animals are known to sit and watch at the falls of streams for fish passing up in the spring. Their principal food, however, consists of the wild fruits of the forest and ants, hornets, wasps and bees, whose nests they invade for the purpose of securing the larvae, wax or honey within. They care nothing for the stings of the infuriated hornets and wasps, but the cubs cry out when stung, but nevertheless keep fast hold of the comb. Cubs will not fight with the mother when she attacks any one, but run up trees. Rutting time is in June, when the he bears are very savage, sometimes going in gangs of twenty or more, and when they come near a she bear they commence fighting among themselves furiously, making the most hideous roarings all the time, and if one gets killed in the fray the rest fall upon and eat him. They fight by first rising on their hind legs, and, rushing at each other, hugging, biting and scratching, endeavoring to rip their antagonists' stomachs open with their hind claws. Bears shed their coats about July. They stalk young moose by creeping upon them, and when close to make a great spring. Having killed the moose, they skin him just as clean as a man would, and begin to cut the chest first, tearing out the paunch, which they throw away. They dislike wet weather, and take shelter where they can keep dry under rocks, etc., and other places. When the old bears go into dens in the fall they take plenty of dead leaves and ferns and make a good bed of them, and the she bear makes no further provision at cubbing time. They always return, if alive, to the same den each fall, but if a porcupine takes possession while they are away in summer, and leaves droppings about, the bear will not return to that den again. A large sized bear will weigh over six hundred pounds, and give one hundred pounds of grease, for which one shilling sterling per pound is given at Shelburne, while at Halifax a wine bottleful sells for four shillings. The most of the bear is excellent eating, tasting something like mutton. It is best boiled to render it tender, and then fried with pieces of fat. The tongue is very similar to a calf's tongue when boiled. The Indians cure bear meat by cutting it up into long strips and plating it on a framework of poles, lighting a fire underneath so as to dry it in the smoke, which process takes about two days, and if kept dry afterwards in a proper place will keep for a year or more. They never make use of the inside portions of the animal—viz: heart, liver, etc. When they cook fresh meat they cut it into small pieces and fry it. The meat when partially smoked we found much better boiled than fried—frying making it too hard. The bones of the bear are salted down and used to put into soup. The gall of the bear the Indians use for sprains and wounds.

The Indians appear to be a very superstitious race of beings, and the most trivial events cause anxiety. For instance, one night the light of our fire attracted a little Acadian owl (*Strix acadica*), which perched on a branch close by, making a curious noise. One of the Indians at once predicted that bad luck would attend our expedition, and begged us to level a gun at the unfortunate bird, whose death alone, he believed, could cast away the spell that rested upon us.

One day we started with Peter Paul in a westerly direction from the camp, and after travelling about two miles through thick forests and swamps, we arrived on the borders of a good sized lake, with an outlet at its western end. On walking round we came upon a large beaver house, situated on the lake edge, where the water was deep. The house appeared as if two cart-loads of fagots had been thrown down in a heap and flattened above. Having no implements to enable us to take it asunder, we were obliged to leave it as it was. Going still further down the lake side we arrived at the outlet, which we found dammed across by the beavers. It was constructed of sticks and mud, overgrown with grass and weeds, the sticks laid over each other in a line of lace-work, almost entirely stopping the escape of the lake water down the brook. There was an older dam below this one, about fifteen yards lower down the brook. The smaller alders, poplars, and other trees near the dam were cut short off near the ground. This lake on its west side is muddy, with a vigorous growth of rushes, sedges, etc. An island of about half an acre, covered with spruce and pine, divided from the south shore by a narrow passage, has upon its eastern side a very large beaver house upon the shore, extending into the water. The house, or rather stack of sticks, is very large, built of larger sticks than usual. In this large pile there must be several cart-loads of sticks and small logs from the small twig up to pieces four inches in diameter. Some pieces are several feet in length, while others are only three or four inches long. The beaver pups early in spring, having two cubs, but they are sometimes known to have young in August. When the cubs are two years old they pair and go off to another place. Beaver skins sell about Shelburne now for four shillings sterling per pound, while some years ago they sold for eighteen shillings per pound. A good skin will weigh four pounds.

About Whetstone Lake the Robin (*Turdus migratorius*) was very common, flocking together in large numbers at sundown on the shore, picking up insect food. The hermit thrush (*T. palasi*), well named so from its retired habits, occurs there also, treating us, as the shades of evening drew around, to its plaintive notes; and the spotted snake (*Colester ventralis*) was found sunning itself on the granite boulders by the lake side, about mid-day. These boulders had been carried up from the lake to their present position by the action of the ice, for the course they had traveled was clearly perceptible in the deep channel which led from each of them to the bed of the lake.

After three days spent in this locality, we made a move to the northwest, but had not proceeded far before some of our party shot another bear, and we had to call a halt in order to skin him. We had now arrived on the upper ridge of the granite plateau, from which we had a magnificent view of the country around for many miles on every side, and a wild and curious scene it was. All around us lay a perfect wilderness of granite boulders, among which rose a dense growth of the blueberry and huckleberry, and interspersed with thickets of a species of dwarf spruce, birch and alder. The Labrador tree (*Ledum caespitosum*) and a species of *Myrica* were also abundant. Small lakes were seen in every direction, and the shrill cry of the loon marked the breeding place of that shy

and solitary bird. Our camp here was an exceedingly primitive one—a few small poles stuck against the side of an overhanging boulder, and covered with brushwood, was all that gave us shelter; but the day's toil sufficed to send us into a sound sleep, which was only broken by the sharp frost of the early morning. On awaking early, I went out to survey the scene, which was indeed lovely in the extreme. The sun was just rising, illuminating the eastern sky with glowing colors; a flock of wax wings (*Ampelis cedrorum*) sat preening their feathers on the bleached branches of a blasted pine hard by, in company with a few migratory thrushes, while a keen northwest wind was blowing, bracing up the nerves, and the whole country round became gradually lit up to the life of another day.

We now traveled still upon the elevated table land, passing here and there through some terribly swampy ground covered with moss, which sank at every step, letting us up to the knees. We were freighted with our heavy packs, and above all the heavy green bear skins, and the work told upon all. Sometimes our route lay over spots where, in addition to the mossy swamps, fallen spruce and pine lay beneath, with their sharp-pointed spikes of branches sticking up, on which we occasionally got a painful reminder; but after all our trouble, about noon we gained the summit of a high point of upland, on which rested a huge granite boulder split into two pieces, under which was a large rill of delicious water. We gave this the name of "Split-Rock Well." Leaving this place, we arrived a little before sundown near a stream which joined two large lakes. The stream was deep and about twenty feet wide, and presenting a good site, we camped here. At dusk, three of us started for the upper lake to see the beavers which Peter Paul told us he had seen some time back when in company with an old Indian he had visited it. We came cautiously upon its banks, and lay down looking and listening for the animals. In a short time, at some distance, we could see in the twilight ripple marks on the surface, and presently a head or two moving about swimming in the direction of the opposite shore. We watched them carefully and observed that the beaver coasted along shore, engaged now and then in looking for food, just as we have often seen the muskrat do in a pond. After watching them for some time, we heard on our right, where Peter Paul had gone, a loud flap on the water, just as if a paddle had been struck on the lake, and all signs of beaver vanished at once. This, we considered, came from a sentinel beaver, who, having heard Paul coming in the direction of their headquarters, had sounded this token of alarm. Although we waited for some time after this, not a beaver could be seen.

The next day we traveled also along the table-land in a northwesterly direction, passing over much the same kind of land, the spruce woods getting larger. I chased a porcupine for about a hundred yards, when he took to a spruce tree some twenty feet high and was killed. I noticed that the Indians shaved the porcupine of his quills before carrying him. The process is as follows: Taking a sharp knife they shave from the tip of tail to head, and an extremely careful not to get any of the small quills in their hands, as the puncture is very painful. The old woman's tale of a porcupine throwing its quill at a person chasing it is untrue; the truth of the matter being that if a stick be presented to it, or any one attempts to handle it, it immediately strikes the offender with its tail, driving the smaller quills with such force as even to stick them firmly into a piece of wood. The flesh of the porcupine is delicious, tender and sweet, the tail when fried nicely being the choicest morsel. We camped this night in dense woods by the side of a stream, and having exhausted all our provisions, began to feel somewhat alarmed that if we did not reach the settlement on the west or Weymouth Coast before long we should fare badly. I may say that we fully expected to have struck some marks of civilization at noon of the first day, according to our reckoning, but on sending an Indian up the highest trees during the afternoon, he only gave us the unwelcome intelligence—"No sign clearing; big woods all along." The next morning early we were determined to try our best to get out of our dilemma, and so it was decided that we should stow away all our goods and chattels, and leave them covered up with branches, so that if we got out all safe we might send in for them afterward, there being but little fear of robbery in such a situation. We therefore took with us only a blanket and our guns, and being thus lightly burdened we made good way. But after a long and tedious march until mid-day, we could strike no blaze (*à e*), the marks placed upon trees by surveyors in the back settlements), and we sat down to rest and devour our last scrap of biscuit and a small tin of chocolate among six, with anxious thoughts as to what would constitute the next meal. Off again, we traversed thick woods, descending all the time, and in a valley first discovered an old blaze, which gave us fresh courage, and we contrived to follow it for some distance, until, to our chagrin, we found ourselves on the shore of a large lake, about midway from its extremities, so there was nothing for it but to trudge, wearied as we were, all round its lower end, which, having been accomplished, we struck out through the forest again by compass, no blaze being seen. It was getting dark, and we had given up all hope of getting out that night, when Peter Paul, who was some distance ahead, called out, "Road! road!" and, on arriving at the spot, sure enough there lay an old track, which, following to the southward till dark, we came to an open spot surrounded by woods, in which was a field of potatoes and turnips. I may be excused when I say that we dispensed at such a time with the ordinary courtesies of society, and every one was allowed to help himself; and a ludicrous fight it was indeed to see through the gloomy darkness the forms of six hungry individuals sitting in the midst of a turnip patch refreshing themselves with the vegetable esculents. An old shed, with large holes in the roof, stood in one corner of the clearing, and to this we adjourned, and, making a fire outside, roasted potatoes and made ourselves as comfortable as we could; but the rain began to pour down in torrents, and, drenched and weary, we passed an almost sleepless night. The morning, however, no sooner dawned than we trudged down the road, and hearing the sound of an ax, directed our course that way, and soon found ourselves in the presence of a worthy settler, whose snug farmhouse lay close by on the banks of the Simboe River, in Digby County. A forlorn-looking group, indeed, we must have appeared, all tattered and torn as we were after our hard travel over mountain and swampy barren, but the heart of the worthy man warmed toward us as he hurried us along to his dwelling; and soon with his table groaning under the weight of good fare, he bade us welcome to civilized life once more; and it is almost needless to add that, while enjoying such welcome hospitality, we soon forgot the weary tramp we had made through the trackless depths of the Nova Scotian backwoods. J. MATTHEW JONES.

Halifax, N. S.

## For Forest and Stream and Rod and Gun. A RAMBLE ON THE PALISADES.

OF all the places in the vicinity of New York City, noted for their beautiful scenery, the Palisades are the most celebrated—for their proximity to the city as well as for the grandeur of their scenery. There, within twenty miles of the City Hall, one may wander for miles through an uninterrupted forest continually encountering new and varied objects of interest.

Yet how few have ever explored them; nearly all think they have "done" the Palisades by sailing up the Hudson, or, perhaps, by going up to the hotel. Viewed from the river they appear nothing more than a rocky bluff, and those who have seen them at the Palisade House have seen but a small portion of the less interesting scenery.

The summit was once surveyed for a railroad, but happily that was all. At the thought of a railroad through this romantic region one feels something of the indignation of Ruskin when he alludes to the poetical associations of certain English glees were driven off by the whistle of the locomotive.

The origin of the Palisades is too well known to be mentioned. The cliffs, with but few exceptions, are divided by a wide, imperfect crystallization into cubical masses, by the action of frost and water aided by the prying power of roots growing in the crevices. Whole columns of these are frequently precipitated to the increasing debris below. All along the verge, rocks weighing many tons may be thrown down by prying, so exactly are they poised. Several miles above the hotel an irregular fissure, nearly a hundred yards from the edge, has recently appeared. It is about a yard in width, and accessible to a depth of twenty or thirty feet, and extends, though interrupted in places, for upward of a mile. From these facts we must infer that the time is not so far in the future when the Palisades, as such, will no longer exist. Already the debris in many places extends upward over three hundred feet, and greatly detracts from the grandeur.

Many of the rarer birds of prey make their eyries in some niche in the overhanging wall, baffling the most enthusiastic oologist; the rocky fissures afford a congenial retreat for many of the smaller mammals, and, upon rare occasions, the den of a wild cat has been discovered in the more inaccessible fastnesses. In some of the brooks west of the Palisades trout abound. I caught sixty-eight last season, many of them weighing over half a pound, from one small stream in which one would not have believed it possible for them to exist. Many rare mountain plants flourish upon the scanty soil to reward the botanist. In fact, every one will find something of interest, while he will meet with but one obstacle, the copperhead. Even this is more imaginary than real, for though I have traveled the entire extent of the Palisades, I only once encountered this venomous snake. While swinging down a precipitous place by means of trees, some large rocks were overthrown, and a nest of copperheads disturbed, four of which were duly killed and preserved.

But perhaps the Palisades are most interesting to the student of nature in her more poetical forms. The upper portion of the Palisades is by far the most interesting—the cliffs are said to be one hundred feet higher. Rocky pinnacles, far exceeding in height the Egyptian obelisks, which look as though the gentle breeze might overturn them, point to the sky; rugged caves and deep fissures, partly concealed by the dense foliage of evergreens—all tend to render the scenery wild and fascinating.

In winter the Palisades and their surroundings present a magnificent spectacle. During the spring, when all nature seems to have been born again, they are exceedingly beautiful; but there is a certain portion of October when they are surpassingly lovely.

During one of these fall days, the lover of nature in her wildest forms should seek some one of the grotesque, moss-covered rocks overhanging the precipice. Here, with some pine's gaunt branches swaying over one, gazing down the perpendicular mass of rock the view is unobstructed, save by perhaps a struggling cedar that forcibly reminds one of Shelley's "Prometheus." Below the Hudson is seen stretching away in either direction from the Highlands to the Narrows. To the east, the glimmering Sound and Connecticut shore are seen beyond miles of intervening country. Westward the eye wanders over miles upon miles of varied landscape bounded by the distant Ramapo.

## SPLIT BAMBOO RODS.

To our customers and the public:—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

—The *Chasse Illustrée* tells of how a groom overcame the obstinacy of a pair of ponies. He was leading the little fellows by a halter, when both of them became obstinate and refused to pass through a certain gate. The animals were such pets that he did not like to whip them. So, considering for a moment, and being a powerful man, he just lifted up in his arms one of the miniature horses and carried him inside when his companion quietly followed.

—It is understood that His Majesty the King of Sweden, has instituted a new order of knighthood, and that honors are to be given to leading farmers and agriculturists in the kingdom. We may shortly look for Baron Beans, Prince of Parsnips, Count of Carrots, Marquis of Mushrooms and the Duke of the Dunghill.

# Fish Culture.

**SALMON IN PENNSYLVANIA—A FAIR FISH CAUGHT IN THE BUSKILL.**—We have to congratulate Mr. H. J. Reeder in the positive appearance of salmon in the State of Pennsylvania, of which he is the Fish Commissioner. In view of the controversy whether salmon can be successfully bred in the streams where they once existed, or where they never were found before, the question seems now to be positively settled in the affirmative. Such evidences as we see every day should make Legislatures in other States direct their attention to stocking the rivers with useful fish. To give briefly the history of salmon culture in Pennsylvania, we may state that in 1872 Mr. Stout, Mr. T. Norris and Mr. H. J. Reeder placed salmon eggs in hatching boxes in a spring near Easton. The fish from these eggs thrived, and were further matured in a large spring by the Bushkill, near Yohl's upper dam. Later, some 40,000 eggs were hatched out coming from Bucksport, Maine. Now, there cannot be any doubt but that the salmon captured in the Bushkill on the 14th owes its origin to the small fish placed somewhere in the Delaware or its tributaries. We are indebted to the *Easton Free Press* of the 14th November for an excellent account of the salmon:

The fish was discovered in Groetzingar's mill race, on the Bushkill, at the foot of Fourth street, and its unusual size immediately attracted the attention of a number of people. After some difficulty the fish was secured by Mr. James Young. Mr. Young presented his prize to his uncle, Mr. J. E. Stair, and as it was very generally believed to be a salmon, Mr. Stair, appreciating its important bearing on certain mooted points of the history and habits of this fish, and in the interest of fish culture, thoughtfully placed it at the disposal of Fish Commissioner Howard J. Reeder. The point at issue with scientific men, referring to salmon, is whether this fish placed in rivers as far South as the Delaware and Susquehanna will, with the instinct of their class, return to the grounds where they were hatched, and as nothing but experiment will prove this, the importance of all evidence bearing upon the controversy will be realized. At different times during the past four years a great many thousand salmon eggs and salmon fry have been deposited in the Bushkill and Delaware rivers under the supervision of Commissioner Reeder, and at various times reports have been circulated of salmon of considerable size being caught at Bordentown, Trenton, Carpenter's Point and other points on the Delaware, ranging from five to eight pounds weight; but unfortunately these have fallen into hands that did not perceive anything in the fact beyond the table, and their evidence was lost to the scientific world. But this fish is a fact, and in official hands will be irrefutable evidence that the stocking of our rivers with the most valuable fish in the world is not visionary, but practicable. Its further significance will be that it will stimulate legislation to foster and advance our fish interests by more substantial aid and encouragement to our Fish Commission than has heretofore been given to it. The fish in question is a fine specimen. It is female, and its dimensions and description are as follows:—Total length, 32 inches; length of head, 6½ inches; girth at dorsal fin, 15 inches; caudal, when expanded, 9 inches; form, an elongated ellipse, greatest breadth in front of dorsal; bronchial rays, 12. Fin rays as follows: Pectoral, 13; ventral, 9; anal, 9; dorsal, 12; caudal, 18. Color (after being out of the water nine hours), back, greenish blue; sides, silver gray; belly, white marked by black irregular spots like an x or the club spot on cards, with smaller reddish spots shaped along the back and above the lateral line; teeth, incurved, a line on each side of the upper jaw, and an inner line on the palatine, two rows on the tongue and one row on the outer edge of lower jaw bone. It has, besides, the second dorsal adipose fin, the peculiar and exclusive characteristic of the salmon family.

## FISH CULTURE IN NORTH CAROLINA.

GREENSBORO, N. C., November 11, 1877.

CHAS. HALLOCK, Esq.:

Dear Sir—When, in the fall of 1875, I had the pleasure of your company from Southwestern Virginia across the Onaka Mountains and Blue Ridge to Western North Carolina, there were two points to which I particularly desired to take you, they were Asheville and the Black Mountain; but circumstances prevented, and you left us one cold, snowy morning, for the nearest point on the rail in East Tennessee. I have regretted ever since that you did not see Black Mountain at least, being the highest east of the Mississippi, and measuring almost a thousand feet more than White Top, which you ascended with Col. Reed, and which attains 5,900 feet. From our camp on Nest Camp Creek, where you left us under the escort of the faithful Kilo, I was distant about two days' ride. I hope, however, that an opportunity may soon again offer for completing your visit to Western North Carolina, and would advise that you select that section for your next Summer's recreation. The best route for reaching it is via Salisbury, and thence over the Western Railroad to Henry's Station, where the rail ends, and a Concord stage affords the transportation to Asheville, twenty-one miles. At this point all kinds of conveyances can be procured, and the best of fare and accommodations at the Mount Airy Sanitarium, which Dr. William Gleitzman has there instituted for the treatment of persons suffering from pulmonary affections—the high altitude, pure and dry air, being especially beneficial for such cases.

All the mountain streams of Western North Carolina are good trout waters, and from them many can be selected which afford excellent sport; besides, in a few years, there will be plenty of salmon in the rivers and their tributaries, as the propagation of fish has been commenced in this State.

Having occasion to visit Asheville recently, I stopped to visit the Hatchery established at Swannanoa Gap, en route, and was greatly pleased with the progress made. I found the Superintendent, Mr. W. F. Page, of Lynchburg, Va., in charge, assisted by Messrs. S. G. Worth and W. W. Vandiver. The entire establishment is somewhat primitive, and economically constructed, but quite well adapted for the purpose. Two hundred and fifty thousand eggs of the California Salmon (*Salmo gairdneri*), shipped from the U. S. Salmon Breeding Station on the McCand River, on October 2, reached the Hatchery on the evening of the 13th, and by 3 A. M. on the 4th were all deposited. The hatchlings commenced almost immediately, and the last tray on which the eggs rested was removed on the 4th inst. The fish are now an inch and over in length, and have the sacs about one-third absorbed. They are in good condition, the percentage of loss being low. The water supply comes from a small branch, entering the troughs first a half mile from the spring, and is consequently subject to considerable variation of temperature. The Hatchery has a capacity of nearly three

quarters of a million of salmon eggs; 25,000 trout eggs are expected in a few days. I met General Vance, the present Governor of this State, at the hotel near by. He had just visited the Hatchery, in which he takes a great interest. I gave him several copies of the *FOREST AND STREAM*, with the information that he would find it a standard authority on all subjects relative to fish culture.

When the fish are sufficiently grown, they are to be turned into the headwaters of the French Broad, flowing northwest, and those of the Catawba, flowing south, from this divide.

Thus you will see that should you conclude to come this way, you will find something to interest you.

WAGNER.

—Mr. B. B. Porter informs us that at his pond at Oakland, Bergen Co., N. J., he has salmon from 15 to 18 inches long. These fish were hatched from eggs coming from Bucksport, and were placed in his pond in the winters of 1874 and 1875. The salmon have been fed upon chopped lights, liver and thick milk. The fish are fairly tannic, and will take food from the hand. By the way, Mr. Porter's fine place is for sale at auction. It ought to be purchased for the State for purposes of propagation.

### EDITOR FOREST AND STREAM:

**CULTURE OF WATER PLANTS IN FISH PONDS.**—I am glad you have called the attention of fish breeders to the importance of cultivating aquatic plants, especially in those water courses and lakes that are restocked with fish, for they are an absolute necessity. They form a nursery, shade and shelter and a hiding-place where the young will go for self-protection. These water plants are as necessary for fish as trees are for birds. Water-cresses are excellent plants, and will thrive in water two feet or less in depth, on a mud bottom. They are easily grown from seed, which can be purchased of J. M. Thorburn & Co., No. 15 John st., at \$3 per pound. A small quantity will sow a large area if carefully and economically distributed. Water-cresses are also desirable for the table during the winter and spring months. Wild rice grass is good. Will not some of the seedsmen obtain and advertise it?  
SUBSCRIBER.

—Dr. J. C. Colburn, of Kingson, N. Y., has been stocking his private pond on his farm with black bass and catfish having put about 40,000 young fish into the pond.

**COLLECTING SPAWN IN THE GREAT LAKES.**—The Sheboygan (Wisconsin) *Herald* says:

Mr. Henry Porter, who has charge of the Michigan State Fish Hatcheries, at Niles, and his assistant Mr. A. Briggs, have been here for the past week or so gathering trout spawn. The gentlemen go out with the fishing tugs every morning and carefully possess themselves of the eggs of live fish that are ready to spawn, and then pack them properly and ship them to Niles. They have so far collected 1,500,000 eggs, and mean to swell the number to 3,000,000 before they leave. The work is prosecuted at the expense of the State of Michigan. Mr. Porter informs the *Herald* that the eggs were secured at Milwaukee last fall, but he finds this a much better point for collection and preservation of spawn.

**GRASS BASS FOR PENNSYLVANIA.**—Fish Commissioner B. L. Hewitt has brought from the Licking Reservoir, Ohio, 130 grass bass, part of which have been placed in the Susquehanna, at the water-house, Harrisburg. Other invoices are to follow. Black bass have been placed in the Little Shamokin at Sunbury.

**THE WORST SORT OF POACHERS.**—In the subjoined letter Mr. Seth Green shows up a class of poachers in a fashion that may not be flattering to their sense of self-appreciation:  
ROCHESTER, Nov. 14, 1877.

Mr. Editor—The worst poachers we have in the country are men owning small trout ponds, who pretend to be fish propagators. They net the streams for miles around during all seasons of the year, and keep them until the close season is over, and then sell them. There is a law now against that kind of work, and everybody should keep their eye on all such poachers. No man can do any fishing in trout streams out of season unless he owns the whole of the stream, from one end to the other, under a penalty of not less than ten dollars nor more than twenty-five for each offense; and no person can have any speckled trout, after the same has been killed, in his or her possession during the close season, under penalty not exceeding twenty-five dollars for each fish.

Yours,

SETH GREEN.

## Natural History.

### AMERICAN ACCLIMATIZATION SOCIETY.

THIS society held its regular meeting at the Aquarium on the 14th. The Chair was occupied by Mr. Eugene Schieffelin, Dr. J. W. Green acting as secretary. Among the gentlemen present were: Messrs. Robert B. Roosevelt, of the Fish Commission; John C. Pennington, of New Jersey; Eugene Keteltas, John C. Mills, Edward Schell, S. R. Bance, Edgar De Poyster, Wilson De Puyster, Mr. Conklin, of the Central Park Museum, and others. Mr. Conklin read a paper on acclimatization, with special reference to birds. He detailed the efforts made in this country to introduce foreign birds. In 1864, he said, the Commissioners of Central Park set free fifty pairs of English sparrows, and they had multiplied amazingly; Mr. Joshua Jones had freed English chaffinches, blackbirds, and Java sparrows in the Park, but unfortunately their numbers were so small the birds were lost sight of. In 1874 Mr. Henry Reiche set loose fifty pairs of English skylarks, but they all crossed the East River and settled near Newtown and Canarsie. The Cincinnati Acclimatization Society had successfully introduced the skylark there, and it was now becoming abundant in the neighborhood of the city. Last July the Acclimatization Society freed in the Park some starlings and Japanese finches; Mr. John Sutherland had done the same with some English pheasants. It was expected that they would all prosper. Mr. Conklin suggested that renewed and organized efforts should be made to acclimatize the English titmouse, chaffinch, blackbird, robin red-breast, and the skylark—birds which were useful to the farmer and contributed to the beauty of the groves and fields. Mr. Robert B. Roosevelt read a paper on the acclimatization

of fish. The President of the American Fish Culturists' Association showed that our efforts should be mainly directed to distributing the best of our own fishes through all the waters of the continent, and spoke of what had been done in this way with shad and salmon. The Oswego bass, he thought, was deserving of extensive propagation; but particularly spoke of the land-locked salmon of Maine and Canada, and the California brook trout. The latter fish he considered one of the best which swims in American waters, and was convinced that it would well repay the trouble of propagation here. The great interest taken at present by the public in the acclimatization of animals, birds and fish, and the support it must receive from all naturalists and sportsmen, must in time render this association the leading one of its kind in the United States.

### SEA SERPENTS.

GOOD old Eric Pontoppidan, Bishop of Bergen, was by no means a naturalist of indifferent abilities. But if that honest worthy had a talent for any one thing it was for finding out marine monsters. The Bishop was not only an implicit believer in the great sea serpent, but he accepted the kraken, and most anything else that was told him. Of course the prestige of this Scandinavian prelate had its weight, and to this day the belief in wonderful marine monsters is more prevalent in Northern Europe than anywhere else. We notice quite lately that Mr. Frank Buckland, quoting Sir Walter Scott, tells how the great novelist was rather disposed to believe in sea serpents; and he mentions that to-day it would be difficult to shake a Zetlander in his confidence in the existence of marine monsters.

The majority of these stories were monopolized at one time by Northern prelates. It was Orlaus Wormsus, in 1643, who said that the kraken came out of the water more like an island than a beast. The old Latin is *Simiorem insule quam bestiam*. Eric Falkendorf, Bishop of Maros, wrote to Pope Leo, as early as 1520, about a sea serpent of incalculable length and complexity of coil; and two years later Olaius Magnus, much more moderate, saw a snake only fifty feet long. People in those days had peculiar arguments to prove the existence of sea monsters. For instance, if a fisherman went out with his lines adapted for thirty fathoms of water, and found in a certain locality, the depth of which he believed had been well ascertained, that his line touched ground at ten fathoms, it was perfectly clear to the fisherman that there was a sea monster in the depths below, and that the difference in sounding was owing to a monster being at the bottom of the sea. About 1808, a clergyman asserted that he saw off the north of Scotland a serpent eighty feet long. The locality was between Rum and Canna. If not for the clerical character of the witness the locality of the sea serpent might be between Santa Cruz rum and good Scotch whisky. It was in 1817 that first was agitated in the United States the sea serpent. Then the *Monstrum horrendum* was seen off Cape Cod, and the Linnean Society of those days investigated the matter, sending a commission to the locality. That particular snake was only one hundred feet long, which may, however, be considered fair as a first attempt. It is hardly worth while to refer too far back in regard to sea serpents, though we might quote Aristotle. We will direct our attention to such descriptions of the sea serpent as have come under our notice during the last few years.

The locality of the sea serpent has somewhat changed, though still found in the north, he has been occasionally seen much further south. He has made his appearance as late as 1875, in the Frith of Forth, off Fife Bay and the North Foreland, off Hastings, and the Isle of Arran, and at Menai Straits and Prawle Point. This locality is, as it should be, well to the north, but Captain Drevar, of the ship *Pauline*, in the same year, off Cape Roque, declares that he and his crew saw a sight which filled them all with terror. "Starting straight from the bosom of the deep, a gigantic serpent rose and wound itself twice in two mighty coils round the larger of two whales which it proceeded to crush in genuine boa-constrictor fashion \* \* \* The ribs of the ill-fated fish were distinctly heard cracking, one after the other, with a report of a small cannon. \* \* \* Soon the struggles of the wretched whale grew fainter and fainter; its hollowings ceased, and the great serpent sank with its prey beneath the surface of the ocean." This was indeed a horrible monster! The officers of the *Pauline* declared the serpent to have been 150 feet long, and that twice it reared its crest sixty feet out of the water as if meditating an attack upon the ship itself.

Once in 1875, the real original sea serpent came very near being captured. It was a Captain Taylor who wanted to noose him with a lasso. It was brave John Abes, the mate, who was tried to get on the bow sprit, and do the deed; but John Abes got frightened, and fell overboard. Bold John, however, wrote a letter about it, in which he said, "The brute was then within a few yards of me, with its monstrous head and wavy body soaking ten times more horrible than it did on board the brig. I shiver even now when I think of it! Whether the noise made by throwing the rope over to save me scared him, I cannot say, but he went down suddenly, though not more so than I came up. After a few minutes he appeared some distance from us, and then we lost him."

We come now, however, to some authorities that, irreverent as we may be in regard to sea serpents, we are forced to treat with a certain respect. The sea serpent had the honor of appearing in nothing less than an Official Report to Admiralty. In June of this year, on her Majesty's yacht *Osborne*, on the

2d of the month, off the coast of Sicily at 5 o'clock p. m., the sea serpent turned up once more. "The sea was unexceptionally smooth, and the officers were provided with good telescopes. The monster had a smooth skin, devoid of scales, a bullet-shaped head, and a face like an alligator. It was of immense length, and along the back was a ridge of fins about fifteen feet in length and six feet apart. It moved slowly, and was seen by all the ship's officers." This account is supplemented by an article written by a lieutenant on board the Osborne, who made a sketch of the sea serpent, who says: "From the top of the head to the part of the back where it became immersed, I should consider about fifty feet, and that seemed about a third of the whole length. All this part was smooth, resembling a seal."

In the month of May of this year, in latitude 2° north, and longitude 90° 53' east, the crew of the barque Georgina, bound from Rangoon to Falmouth, saw the sea serpent. This time it was not so large, being only fifty feet long, "gray and yellow in color, and ten or eleven inches thick. It was in view for twenty minutes. Another account of this snake, emanating from the same source, states that "for some days previously the crew had seen several smaller serpents, of from six to seven feet in length, playing about the vessel." We may remark, parenthetically, that Rangoon arrack is a very powerful stimulant.

In the last number of *Land and Water*, a correspondent takes up this sighting of the sea serpent by the officers of Her Majesty's yacht Osborne, and believes that all which was seen was a turtle, either the *Chelonia covanua* or the *C. carivacea*, pursued by a shark or sharks. Undoubtedly a shoal of basking sharks, one following close after another, might be taken for a single creature. Though we may have only lately accepted the huge size of the cuttle fish by no means follows that we should credit the stories told about sea serpents. That largely developed individuals of certain species of animals may exist is not to be denied; though it is not probable by analogy, since huge reptiles once existed on the earth and are no longer present, that there should be exceptions in regard to the inhabitants of the sea. We are right to suppose that the elephant on the land and the whale in the sea represent these two limits.

We have no inclination to discredit marine stories, nor to even suspect that the toilers of the sea are given to amplifications. We bear in mind some curious facts in regard to a sea serpent. Some two years ago there was great excitement at the Smithsonian Institution, and various telegrams were interchanged between Washington and New York in regard to a huge sea serpent which was obstructing the East River. The wonder grew as it was talked about. Not only was there a sea serpent, but it had been captured. The *FOREST AND STREAM* was at fever heat. We sent out reporters to look up the horrid thing. At last we thought we had it. *Parvuriant montes*, etc. That snake turned out to be a little boa, which having died on board of some ship coming into port, the cadaver had been pitched ignominiously overboard into the river. This monster, said to be of indescribable size (half as long as from the Battery to the Post Office), was really not more than five feet in length; and the wonder now graces the collection of Mr. Eugene G. Blackford. Let us take all sea serpents, then, *cum grano salis*.

#### HISTORY OF THE BUFFALO.

AS the early accounts of the buffalo are quaint and interesting, as well as worthy of preservation, I have collected some of them as forming part of the history of the huge denizen of the plains, now so rapidly disappearing.

The chroniclers of De Soto's expedition say nothing of the buffalo. Guzman saw them in Cuialoa (Mexico) in 1532. In 1539 Father Marco De Nica, in exploring Northern New Spain, says that in the kingdom of Totontec they showed him a hide "half as big again as the hide of an ox, which they said belonged to a beast with one horn. The color of the skin was like that of a goat, and the hair was a finger thick."

In 1540 Coronado, in his celebrated expedition, first heard of buffalo at Cibola (Zuni), and says the people "travel eight days' journey into certain plains, lying toward the North Sea. In this country are certain skins well dressed, and they dress them and paint them where they kill their oxen, for so they say themselves." He also saw an Indian there from another province who had a buffalo painted on his breast, and his chronicler, Castaneda, speaking of the hides, says they are "covered with a frizzled hair which resembles wool." After leaving Cicnic (Pecos) he says: "All that way and the plains are as full of crooked-backed oxen as the mountain Serena in Spain is of sheep, but there is no people but such as keep those cattle."

In a work published at Amsterdam in 1637, called "New English Cunaun," by Thomas Morton, he says: "The Indians have also made description of great herds of well-grown beasts, that live about the parts of this lake (Brookside), now Lake Champlain, such as the Christian world (until this discovery) hath not bin made acquainted with. These beasts are of the bigness of a cowe, their flesh being very good food, their hides good leather; their fleeces very useful, being a kind of woole, as fine almost as the woole of the beaver, and the salvages do make garments thereof. It is tenne yeares since first the relation of these things came to the eares of the English."

In Sir Humphrey Gilbert's voyages, which commenced in 1533 (Hakluyt), he says there are in Newfoundland "buttoles, or a beast it seemeth by the tract and foot very large in manner of an ox."

In a description of New York, written about 1660, it says: "Traders who came from a great distance make mention of lion's skins which will not be bartered because they are used for clothing, being much warmer than others."

In a work published by Hakluyt, in London (1589), it is stated that in the Island of Newfoundland were found "mighty beasts like to camels in greatness and their feete were cloven. I did see them farre off, not able to discern them perfectly, but their steps shewed that their feete were cloven, and bigger than the feete of camels. I suppose them to be a kind of buffes, which I read to be in the countreys adjacent, and very many in the forine land."

Gonnara gives the following description of the buffalo as seen by Coronado and his army in 1540: "These oxen are of the bigness and color of our bulls, but their horns are not so great. They have a great bunch upon their fore-shoulders, and more hair upon their forehead than on their hindpart, and it is like wool. They have, as it were, a horse mane upon their back-bone, and much hair, and very long from the knees downward. They have great tufts of hair hanging down their forehead, and it seemeth they have beards, because of the great store of hair hanging down at their chins and throats. The males have very long tails, and a great knob or flock at the end, so that in some respects they resemble the lion, and in some others the camel. They push with their horns, they run, they overtake and kill a horse when they are in their rage and anger. Finally, it is a fierce beast of countenance and form of body. The horses fled from them, either because of their deformed shape or else because they had never seen them. Their masters have no other riches nor substance; of them they eat, they drink, they apparel, they shoe themselves; and of their hides they make many things, as houses, shoes, apparel and ropes; of their bones they make bodkins; of their sinews and hair, thread; of their horns, maws and bladders, vessels; of their dung, fire, and of their calf-skins, budgets, wherein they draw and keep water. To be short, they make so many things of them as they have need of, or as may suffice them in the use of this life."

Another author, Purchas, says that as early as 1613 the adventurers in Virginia discovered a "slow kinde of cattel as bigge as kine, which were good meate."

Joliet and Marquette in descending the Mississippi in 1673 saw the buffalo, and the latter says of them: "We call them wild cattle, because they are like our domestic cattle; they are not longer, but almost as big again and more corpulent; our men having killed one, three of us had considerable trouble in moving it. The head is very large, the forehead flat, and a foot and a half broad between the horns, which are exactly like our cattle, except that they are black and much larger. Under the neck there is a kind of large crop hanging down, and on the back a pretty high hump. The whole head, the neck and a part of the shoulders are covered with a great mane like a horse's; it is at least a foot long, which renders them hideous, and falling over their eyes prevents their seeing before them. The rest of the body is covered with a coarse curly hair like the wool of our sheep, but much stronger and thicker. It falls in summer, and the skin is then as soft as velvet. At this time the Indians employ the skin to make beautiful robes, which they paint of various colors."

The first engraving of the buffalo was in the first edition of "Hennepin's Travels." Alvar Nunez in 1535 saw buffalo near the Gulf, and Jontel, one hundred and fifty years afterward, saw them at Bay St. Bernard. Father Venegas does not include them in the animals of California, and neither Harmon nor Mackenzie speak of them in New Caledonia. Du Pratz, in 1758, says they do not exist in Louisiana. In 1756 some of those who settled in the Abbeville district of South Carolina found buffalo there, and in 1774 Bernard Romand speaks of them as a "benefit of nature bestowed on Florida."

We find the trade in buffalo wool a considerable one in the last century, and numerous factories were established for its manufacture. The slaughter of the buffalo has been the greatest in the past thirty years, and since the settlements and railroads have extended into the buffalo range the buffalo has frequently been domesticated, and the Bois Brules put them to use as work cattle.—*Dr. Wm. E. Doyle, in Washington Sunday Herald.*

[How easy it is under the light of history to trace the gradual extinction of this race of noble animals. The remnants are now comprised in two inconsiderable bands, which are confined to circumscribed localities—one in northwestern Texas, and the other to southern Dacotah. Over five millions of buffaloes have been killed within the past six years, chiefly for their hides!—*Ed. F. & S.*]

#### CAN THE PARTRIDGE WITHHOLD HIS SCENT?

MR. EDITOR:—This is a question which is often propounded, and as frequently answered in the negative as affirmatively. I remember my illustrious kinsman, Frank Forester, in his admirable work, which is just now out of my library, was of opinion that the bird in question was possessed of that faculty, but whether it was voluntary or involuntary, the effect of the will, I am not informed that he determined. Nor have I ever seen advanced any theory or supposition tending to explain this wonderful quality. Before submitting my own ideas upon this subject, which I believe are plausible at least, I would remind you of the marked distinction in the quail of your Northern States and the Canadas and the *Perdix virginianus* (accepting Forester's nomenclature) of this section. The Virginia partridge, which I contend is no quail, is smaller than his cousin *ortyx*, and more vigorous and rapid on the wing. He is, moreover, the bravest of all game birds that long and varied experience has given me any knowledge of; invariably dying hard or remaining upon the wing until life is wholly extinct. In fact, I have always observed that when struck fatally he is certain to fall dead.

Perhaps all this is a little irrelevant, but I merely mention this lest some of your northern sportsmen who have had much quail shooting should confound this king of all game fowls with his larger brother.

In support of my theory allow me to cite two occurrences which came under my own observation, and one of them quite recently:

The first that I will record took place last season. In a thick cover of grass my English setter Dash pointed four birds, full fledged and vigorous, in January, when they had attained to the standard of old and knowing fellows. I had reason to judge they had been flushed by the hawk, but terrible pirate of the upper seas, and upon flushing, I contrived to bag a couple of cocks, leaving only two birds remaining.

Their flight was not a very long one, and I watched closely

the spot where they went down, beside a small pine which had been felled, being then in full leaf, but russet and completely withered. In a few moments Dash and I were on the ground, and he is the most knowing hunter you ever saw. Vain were his efforts to wind or trail them. After several minutes of close hunting, and after I had thoroughly beaten cover, I called him off, thinking possibly they had again taken to wing (which is unusual) while I was loading.

After an interval of an hour or two I again visited the fallen pine, and Dash had scarcely drawn to within ten feet of the very cover he had lately hunted when he came to a dead point, and I started the birds. Was his nose at fault? I believe no dog has a better.

On the evening of the 6th inst, I went out for a little sport, reaching the fields at half past one, in company with a friend—Dash our only dog. The wind was from the southwest, blowing a perfect gale, and cold—the day before warm and rainy. Altogether a bad day for game, as we found nearly all of it near woods and under thick cover. Yet despite all this we got a bag of thirty-five, as plump and pretty as you ever saw.

Upon the rise of one covey we brought down five with our four barrels, wounding the sixth, who grounded in a patch of tall reeds.

Out of those he was again sprung, flying directly to me and alighting within a few feet of where I was standing. I refrained from shooting to watch him. The cover this time was of reeds, but lower and sparser. I saw to the very inch where he went down; I could not be mistaken. The closest search with my dog was unavailing, my friend was on the look-out for his rise. He never rose, and we never saw him again. I prefer prefacing my explanations of this faculty with these recitals of facts—absolute facts.

The most casual observer, if he has ever seen a bird while his dog was roding, must have noticed that the bird appeared much smaller when undisturbed, and really smaller than he was.

Why? Because in his fright he has shut his feathers close—he has the power of doing this.

This same tight-fitting coat of his, chemistry tells us, is one of the best non-conductors that we have. If this be so, then is it unreasonable to suppose that it may answer at least the double purpose of shutting out cold and shutting in scent?

Some sportsmen acknowledging the partridge's ability to elude the dog in this manner, contend that he is only able to do this on account of remaining quiet and not moving so as to leave scent. I attribute it to something more flattering to his birdship than this—to the will purely, voluntary and instinctive, and knowledge taught him through that instinct that never errs, for it is but the unadulterated philosophy of nature which she is ever teaching her dumb children.

Norfolk, Va., Nov. 12, 1877.

HARRY HARRINGTON.

#### QUAIL AT SEA.

HAVE WE A NEW VARIETY OF QUAIL?

THE following two quite interesting letters, by a remarkable coincidence, reached us at the same time. The question of the migratory habits of the quail has before attracted our attention. The fact of quail going sometimes to sea may be accidental, caused by stress of weather. But the facts conveyed to us by our correspondent from Norfolk seem to indicate that a new variety of quail is possible. Now, the difference between the Virginia quail (*Ortyx virginianus*) and the European quail is not very great. Coates (page 236) in his "Key to American Birds" says: "The differences between the European and American birds are hardly appreciable." It is generally conceded, though exact weights have never been taken, that the American quail is slightly heavier than the European variety. The European quail is decidedly migratory. At certain seasons of the year it inhabits Europe, some few coming to England, but it migrates in the fall of the year to more southern climes. Four years ago there was an extraordinary migration of quail from Norway into England, the birds coming in myriads. The islands and shores of the Mediterranean swarm with them. As many as a hundred thousand quail have been killed within a limited space off the coast near Naples. At certain periods quail appear in Africa, and later they traverse the Mediterranean. The appearance of a new quail in the United States, if substantiated by further evidence, would be a curious ornithological fact and well worthy of study. We believe that efforts have been made to breed quail on the islands of Jamaica and St. Croix. There may be the least chance that, true to their migratory instincts, these birds may have crossed the ocean. Of course, this is only a supposition on our part.

The general behavior of the birds, as described by our correspondent when shooting in North Carolina, was at least peculiar; and, as the writer is a sportsman and familiar with the form and general appearance of our own bird, the belief may be entertained that some difference may exist between our native birds and the new-comers. Of course we will do our best to throw further light on this subject:

EDITOR *FOREST AND STREAM*: BALTIMORE, Nov. 13, 1877.  
Will you kindly inform one of your new readers through your columns if there are, so far as you know, any recorded instances of our American quail making excursions to seaward? Or if there are any varieties of the quail family which are accustomed to "go to sea," either for pleasure, profit or pure cussedness?

I am induced to make these inquiries for the reason that some days since a reputable gentleman of my acquaintance recently arriving in this city from Rio de Janeiro, made to me a statement which leads me to believe that such a species does exist. This gentleman states that one day, on the voyage up, while lying "home to," some hundred miles or more to the southward and eastward of Cape Hatteras, there came on board the barque, no less than thirty or forty quail! It had been blowing very heavily from the SE. for the previous thirty-six hours, and my informant states the birds in question, before seeking a refuge in the rigging of the vessel, had been observed apparently endeavoring to hold their way, directly into the teeth of the gale. After coming on board several of them were so exhausted they were readily captured. Others succeeded in escaping from the clutches of "Jack," and left the ship, it is feared, to perish; while others maintained an existence too far aloft for Jack to trouble them in such heavy weather, and were seen, as fainter weather came on, and the barque was enabled to resume her course, to also resume their flight to the eastward, or, perhaps, a little to the southward of it. In reply to the incredulous remarks which

greeted his statement, the gentleman said he was positive the birds were quail, but thought they were a heavier winged and smaller bodied bird than those generally seen hereabouts. At all events, he swears they tasted like partridges, for a right royal feast they had on them when these got down, and the cook was able to keep his broiling irons on the galley fire. I regret that, if at them they must, at least the skin of one of them could not have been saved, to be put in as documentary evidence of the truth of this remarkable "yarn."

Yours, J. G. W.

EDITOR FOREST AND STREAM: NORFOLK, Va., Nov. 10, 1877.

Sir—My attention was recently attracted to the appearance in Carteret Co., N. C., where I have recently been shooting, of a, to me, new game bird. For the sake of information, I append a short description:

In size, it is about one fourth smaller than our quail; in color and marks it strikingly resembles that bird. The wings, however, are somewhat longer, and the tail shorter. The marks about the head are similar, but not so distinct. On the throat of the male, or what I assume to be the male, there is a curious cross-shaped mark of darker feathers.

They are found in bunches of from six to twenty, and when flushed near the coast, they "tower" like the snipe; and when at an altitude of five or six hundred feet, strike straight out to sea. I shot several, although they puzzle the dogs sadly by running and skulking closer than any bird I ever hunted. The flesh is equally good with that of the quail. I showed them to several persons, none of whom had ever seen such birds before. The general impression is that they belong to the quail family, but whence they come or whether they go (except to sea) none of us know. Can any of your readers inform us?

Yours, VIRGINIAN.

CUPIDONTA CUPIDO.—HOW THE PRAIRIE CHICKENS WOO.—

The following interesting bit of natural history was received at this office during the absence of the managing editor, and set aside, for what reason we know not. However, it has not spoiled by keeping. We have searched the standard books through without success in the endeavor to discover minute mention made of the manner in which the prairie fowl "toot." The peculiar stages of courtship—the precise character and method of the amours which have given the suggestive name of *Cupidonta cupido* to the pinnated grouse, seem not to have been described by any author. This fact, therefore, renders the subjoined sketch all the more interesting and valuable. While we are quite ready to publish the secrets of the prairie harem (now that they are divulged), to gratify the curious, we feel bound in duty to say that no natural inquisitiveness would induce any gentleman of honor to pry into those private affairs of domestic life which should ever be considered sacred from intrusion; and the only excuse the writer of the following letter can have to offer in extenuation of his offense, is that he acted in the interest of science. Oh, Science! how many sins have been committed in thy name!

EDITOR FOREST AND STREAM: MONROE, Indiana, Sept. 9th.

I have been living for more than twenty years where chickens were as plenty as blackbirds are in most places, and have seen them so plenty that they were a nuisance, and farmers generally were glad to see some "city chap from town" come along with a shot gun and thin them out. Generally, on the warm days in the last of March the chickens collect on the bare knolls where the sun shines warm and the grass is short, to do their love-making, and go through all the preliminaries before nest-building. At such times they are very noisy, and almost without fear. I have lain behind an old feed sack within twenty yards of them, watching through a most excellent glass their motions for hours at a time. I could see their eyes and every motion as plain as though the birds were only ten feet off, and this is what I saw: The cock would stand perfectly still for a moment and stamp his feet very rapidly, and go through a kind of pumping motion with his head and neck, until the wattles on each side of his neck were inflated to the size of a small orange (and they resembled an orange in color). After he had got himself "mad," as my boys used to say, he would droop his wings so that they would rub on the ground almost enough to bear his weight, and make a straight shoot for the best looking hen in the pack. Just as Mr. Cock would start he would draw his head down on his wattles and stretch them so tight that they would shine as though they were varnished, and make a noise that sounded as if it came through his nose—just three notes, "Boo, hoo, hoo!" His dragging wings seemed to help him, as they were so stiff. Instantly, on stopping, his wattles would collapse, and he would look as though he had done something he was ashamed of.

You have often seen turkey cocks do the same thing in a small way, only the turkey don't stop so suddenly. Generally he has a particular liking for some one of the hens, and she gets most of his "boo hoo's." I have seen one cock make half a dozen dives at one particular hen before she was captivated, and then not till after lots of running and cackling. It looked and sounded just this way. The hen would see him coming, and would cackle out, "Take care, take care!" and then get out of his way. The cock would come up and flutter her, and would say, "You old fool, you!"

Now, it would be just as impossible for a prairie chicken to make that booming or tooting without that pouch of wind on his neck as it would be for him to sing Old Hundred with it. Yours, MONROE.

SINGING MICE.—When you want a pure tenor, a soaring soprano, or a liquid contralto, anything like a "sniffle" is destructive of these vocal qualities. Pauline Lucca with a cold, Miss Kellogg with laryngitis, or Brignoli with a frog in his throat, would none of them be acceptable to the impresarios. Now your mouse, as a sweet singer, is quite an exception to the rules which govern the larger musical bipeds. If you could manage to procure a perfectly sound mouse, and give it asthma, or disturb somehow its respiratory organs, you would develop in that mouse all the qualities of a *prima donna*. You might even get an engagement for that mouse at the Academy of Music, with a salary of \$1,000 a night, besides a carriage, hotel expenses, and cheese *ad libitum*. The music the sick mouse makes may be described as a faint quavering whistle, with harmonious cadence, a kind of minute *piccolo* sound. Now it behooves people of a musical but philanthropic turn of mind, should they catch a Malibran mouse, to try and cure it of consumption, and at once they will find that their siren is an abnormal *Mus Musculus*, for no sooner well, than the "wee beastie" will be noiseless, save for a common-place squeak. The poetry of the thing is not exactly destroyed, for it seems that it is not only swans who sing before

they die, but also mice. It is quite a problem, however, whether a dulcet mouse has ever worked sufficiently on the susceptibilities of the cynical cat as to have escaped the general fate of mice.

A NEW MONKEY.—The newest claimant to be classed among the Quadrumana comes from Abyssinia. He is said to live high up in the mountains, some 7,000 to 8,500 feet above the level of the sea. This monkey inclines to be troglodytic, for he goes to his little bed in caves. Dr. Ruppell first noticed this monkey as early as 1835, and having brought his skin to Europe, called him the *Macacus Gelada*, Gelada being the native name. The first live specimens have just reached Europe, and six of them are now in the Alexandria Palace.

"The large male," says the *London Times*, "has a considerable mane, as Ruppell describes, and is hairy over the whole of the body, though Ruppell gives the front legs free from hair. On the chest is a somewhat heart-shaped pink patch, free from hair, and a space round the throat of the same color. When the animal becomes angry or excited these become a bright-red color. The nostrils are high up from the upper jaw, and the upper lip is so mobile that it is often turned up so as to show the whole of the upper teeth and gums. The tail is long and large, and ends in a tuft resembling roughly a lion's tail. The color of the hair is brown, except around the breast, where it is gray. The bare part of the chest shows two male indications of teats, and the suture seems to open into a pouch, which, however, it has not been possible to examine, as the animal is still somewhat savage after its journey. The female has not such long hair as the male, and on the bare spot in front are two well-developed teats. The young takes one in each hand and sucks from both at once. While these animals have rejected all fruits, etc., they have eaten Indian corn and grass, taking the grass, pulling it apart and making it into little balls. As Ruppell says, they sleep in caves; a large box was introduced into the cage and the whole of them soon went into it, the old male remaining near the entrance on guard. The group is especially interesting to naturalists from the fact that these are the first ever brought to Europe.

BIRDS AT SEA.—The *Washington Union* says: "Capt. Fitzgerald, of the schooner *Altoona*, which recently arrived from Bangor, Me., reports that while on his way to this port, his ship was boarded by a flock of birds, which he numbers at above a thousand. They were of different species, and commenced lighting on the vessel at 7 o'clock on the morning of the 30th ult., and continued coming during the day, he being at the time about 60 miles south of Long Island, N. Y., the nearest land. At night they took refuge in the rigging and in the interstices between the bundles of laths. Although fed regularly by the captain's wife, the majority of them lived but a few days after their unexpected arrival on board; a small number, however, surviving until the mouth of the Potomac River was reached. When unloading the laths at Wheatley's wharf here a large number of them were found dead in between the bundles. The supposition is that the birds were migrating, when a squall caught them and carried them out to sea."

ARRIVALS AT PHILADELPHIA ZOOLOGICAL GARDENS FOR WEEK ENDING WEDNESDAY, Nov. 13, 1877.—One gray squirrel, *Sciurus carolinensis*, presented; one water snake, *Tropidonotus sipedon*, presented; two opossums, *Didelphis virginiana*, presented; one bald eagle, *Haliaeetus leucocephalus*, presented. A. E. BROWN, Gen'l Supt.

ANIMALS RECEIVED AT CENTRAL PARK MENAGERIE FOR WEEK ENDING Nov. 19.—Three Virginia deer, *Caracus virginianus*, presented by W. A. Booth, Esq., N. Y. City; three English pheasants, *Phasianus colchicus*, presented by John Sutherland, Esq., N. Y. City; one Virginia deer, *Caracus virginianus*, presented by Louis F. Saxe, M. D., N. Y. City; one T. que monkey, *Macacus cynomolgus*, presented by August Belmont, Esq., N. Y. City; one horned owl, *Bubo virginianus*, presented by Mr. David White, N. Y. City. All of Mr. Barnum's animals have been placed on exhibition during the winter.

W. A. CONKLIN, Director.

### Woodland, Farm and Garden.

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, SEQ. N. Y. HORTICULTURAL SOCIETY.

For Forest and Stream and Rod and Gun.

#### WAX FLOWERS.

WHAT numberless attempts have been and are being made every day to learn the art of wax flower making, and how often they have been given up in despair, or urged on by well meant praises from friends (who themselves scarcely know a rosebud from a fuchsia) they produce an imitation so entirely different from the original, that the modeler is often greatly mortified to be obliged to explain what it is intended to represent. This pleasing art, nevertheless, is comparatively easy, and very little instruction is needed to give an appearance of reality to these lovely models. It is also a useful and highly interesting pastime, affording many opportunities for the study of nature in her most beautiful handwork, and is extremely effective, when neatly modelled and arranged in home decorations, giving a refined and tasteful appearance to the rooms, and is also an excellent aid to those studying sculpture or painting—indeed it is a combination of both on a small scale, as in the moulding of fruit for instance. But the modeler must be perfectly true to nature or the beauty of the object desired is lost; even though it be but the petal of a flower it requires the perfect form and tinting to make it truthful. Forming wax flowers needs time, patience and a correct eye as to color, and last, though not least, materials. It would be best for the beginner not to purchase any quantity of these at first as they would likely be tempted to too many experiments and so weary themselves at the outset. A few of the more simple designs, some sheets of thin white wax, and a few of the thicker quality; some of the green in two shades, half a dozen bottles of the principal colors in powder, and a small quantity of fine-powdered arrowroot, which gives a crisp, frosty appearance to white flowers, such as Camellias, Tuberoses, etc., with the necessary tools, consisting of scissors, modeling-pins, one or two smooth brushes, a sable pen-

cil, moulds for bell-shaped flowers, two or three sizes of wire, the finest of which may be covered with silk and the others with cotton, and a palette will be sufficient for some time. Leaf moulds may be bought, but the impression can be as readily taken from the natural leaf by pressing the wax firmly upon it. With the exception of those which are finely serrated, such as rose leaves, etc., and for these as well as the others, if desired, moulds can be made by simply dipping them into melted wax two or three times and cooling, pouring it several times over the face of the leaf, so that a thick coating is formed on that side only; place it in cold water to harden for some minutes, then, with a knife, cut around the edge of the under part, removing both it and the leaf. Trim off any rough edges remaining on the thick portion and the mould will be ready. For the flowers, two or three nearly alike as possible should be selected—one to be picked to pieces for the various sizes of petals, and the other for reference as to form and color. In cutting out the shape of the petals, use stiff, white paper, keeping true to the outline, except at the base, where it may be cut longer. It will be well to mark the patterns with the name of the flower used, and keep them separate to avoid confusion. Only the purest wax should be used, and in coloring be careful that the exact tint is obtained; and do not be content with one or two trials, but be satisfied only when the copy is perfect. For the rest, practice in making and good taste in grouping and arranging, will make as pretty and durable an ornament as any one need wish for who chooses to study with patience this beautiful art.

Mrs. W. J. DAVIDSON.

#### FLORICULTURE AS A SCIENCE.

FLORICULTURE has one advantage which many other sciences have not. The most ignorant may follow it, and that, too, on equal terms with the most learned; all can understand the beauty of flowers, nature's best and brightest gift to man. They derive not their value or importance from the distance they come; the place of their nativity has nothing to do with the estimation in which they are held. The new variety raised by the merest tyro is worth as much and will bring as good a price as any equally good flower raised by the veteran hybridiser; and the man who does not know A from V may be just as good a judge as a professor of botany. There is as much perseverance too among the lowly cultivators of fancy flowers as among those whose means are unlimited—yes, and frequently much more. Where the laborer or mechanic once takes to his garden that is the place to find him in all seasons of relaxation; his leisure hours if he were not there could not be spent better, and might not be spent so well.

The exhibition of flowers for premiums is one of the means by which the perseverance of the grower is encouraged, and success on such occasions is one of the means by which his labor is sweetened and his love of plants increased. There is nothing like emulation; to create this is the grand secret of making labor sweet. The man who, in his ordinary occupation, would feel miserable with a wet foot, has been known to stand half way up in water to catch a trout, or walk for hours in wet grass to shoot a few quail or woodcock. In the one case, inconvenience is uppermost because there is no exercise of the mind, and a man has nothing to do but feel; in the other, the body is completely subservient to the grand object in view—heat, cold, wet and fatigue are alike unimportant while an object which engrosses the attention directs the steps.

How many will be found who will labor like slaves for their own pleasure, but who would think a quarter of the exertion a trouble in the absence of a motive, or if enforced by others Boating, hunting, base ball, shooting, angling, etc., would be only so many modes of annoying men if they were enforced by a superior power instead of led by their own fancy to voluntary toil; and as man looks for relaxation in some sport or fancy occupation unlike his usual labor or pursuit, happy must it be for the family of that man who finds all he requires in the garden. Well may clergymen take an interest in floriculture, for they can forward their own missions by encouraging it among their neighbors. He who cultivates flowers has the wonders of creation perpetually before his eyes or under his notice; his avocation is sweetened by the variety and beauty of the production he delights in.

Benevolence itself approves the fancy which tortures no living thing, which improves the health, calms the passions, sweetens labor, and forms an inexhaustible store of pleasure without injuring a human being or harming an animal. It is this which places floriculture above all other sources of pleasure; it is this which makes it a favorite science with clergymen and philanthropists; it is this which, when the wealthy of our land once sees its importance, will make them voluntarily support societies for its encouragement from Massachusetts to Nebraska, from Maine to Florida.

#### ENGLISH NAMES OF WILD FLOWERS AND PLANTS.

(CONTINUED.)

FRENCH NAMES.

I CAN find comparatively few names of plants or fruits which we have borrowed from the French. Dandelion is, of course, the lion's tooth. Mignonette is applied by us to a very different plant from that which bears the name in France. Woodruffe, known to travelers in Germany as flavoring the pleasant drink called *matrank*, takes its last syllable from *roue*, a wheel, its verticillate leaves being set like a wheel or rwell on the stem. Pansy is *pensee*, thought, from its significance in the language of flowers: "There's Pansy," says Ophelia, "that's for thoughts." Gilliflower is *groselle*, from *caryophyllum*, a Clove, a name originally given to the

Carnation, but now transferred to the Wall-flower. Tutsan is *toute-saine*, the oil in its leaves having made it a remedy for wounds. Most curious of all is Apricot, from *abricot*, which at one time I contentedly referred to the Latin *apricus*, sunny, ripening, as it does, on sunny walls. It is, in fact, traceable to the Latin *præcox*, early, the fruit being supposed by the Romans to be an early Peach. The Arabs took the Latin name and twisted it into *al-burquq*; the Spaniards altered its Moorish name into *albaricoque*; the Italians reproduced it as *albicocco*, the French as *abricot*, and we get it next in England curiously enough as Apricock, so spelled in Shakespeare's time, and finally as Apricot.

LEGENDARY NAMES.

Many curious bits of myth and history reveal themselves as we excavate down to these old meanings. The Poony, or healing-plant, commemorates the Homeric god Peon, the first physician of the gods, who tended the bellowing Ares when smarting from the spear of Dioned. The Centaury is the plant with which the centaur Chiron saved the wound inflicted by the poisoned arrow of Hercules. The Ambross or Wormwood, is the immortal food which Venus gave to Eneas, and Jupiter to Psyche—the Sanskrit *amrita* which Kehama and Kalilya quaff in Southey's splendid poem. The Anemone, or Wind-flower, sprang from the tears wept by Venus over the body of Adonis, as the rose sprang from his blood—

*Aïma rodon tikteli, ta de dakrua tai anemônian.*

The Daphne, Syringa, and Andromeda tell their own tales. The last, which you may find in the peat-bogs round Shapwick station, is due to the delicate fancy of Linnaeus, who first discovered and named it, blooming lonely on a barren, rocky isle, like the daughter of Cepheus, chained to her sea-washed cliff. The Juno Rose, or tall, white Lily, was blanched by milk which fell from the bosom of Juno, the tale being transferred in Roman Catholic mythology to the Virgin Mary and the Milk-Thistle. The yellow Carline Thistle is named after Carl the Great (in Mr. Freeman's county I must not call him Charlemagne), who, praying earnestly for the removal of a pestilence which had broken out in his army, saw in a vision an angel pointing out this plant as a heaven-sent cure. The Herb Robert healed a disease endured by Robert, Duke of Normandy, still known in Germany as *Ruprecht's-plant*. The Filbert, though this is disputed, commemorates the horticultural skill of one King Philibert. The Treacle Mustard, a showy crucifer resembling Wallflower, was an ingredient in the famous Venice treacle, compounded, as you will remember, by Wayland Smith to treat the poison sickness of the Duke of Susséx. The word treacle is corrupted from the Greek theriacum, connected with wild beasts, whose blood formed part of the antidote. It was at first made up by the physician to Mithridates, King of Pontus, and is still in many parts of England known as Mithridate Mustard. The Flower-de-luce, or *fleur-de-lys*, is the flower of King Louis, having been assumed as a royal device by Louis VII. of France, though legend figures it on a shield brought down from Heaven to Clovis when fighting against the Saracens. It is probably a white Iris.

Not a few strange superstitions and beliefs are embalmed in well-known names. The Celandine, from *celandin*, the swallow, exudes a yellow juice, which, applied by the old birds to the eyes of young swallows, who are horn blind, or have lost their sight, at once restores it. The Hawk-weed has the same virtue in the case of hawks. The Fumitory, *fumiterre*, was produced without seed by smoke or vapor rising from the ground. The Devil's-bit is a common Scabious, with a premature or shortened root, which was used so successfully for a number of diseases, that the devil spitefully bit it off, and for ever checked its growth. The Eyebright, or *euphrasy*, was given to cure ophthalmia.

Michael from Adam's eyes the film removed,  
Then pressed with euphrasy and rue  
The visual nerve, for he had much to see."

The Judas-tree, with its thorn and pink blossoms, was the tree on which Judas hanged himself. The Mandrake gathered round itself a host of wild credulities. It was the Atropa Mandragora, a plant nearly allied to the deadly Nightshade, but with a large forked tuber, resembling the human form. Hence it was held to remove sterility, a belief shared by Ithaca in the Book of Genesis, and was sold for high prices in the middle ages with this idea. In fact, the demand being greater than the supply, the dealer used to cut the large roots of the White Bryony into the figure of a man, and insert grains of Wheat or Millet in the head and face, which soon sprouted and grew, producing the semblance of hair and beard. These monstrosities fetched in Italy as much as thirty gold ducats, and were sold largely, as Sir T. Brown tells us, in our own country. It was thought that the plant would only grow beneath a murderer's gibbet, being nursed by the fat which fell from his decaying body; hence it formed an ingredient in the love-philtres and other hell-broths of witches, and, as it was believed that the root when torn from the earth emitted a shriek which brought death to those who heard it, all manner of terrible devices were invented to obtain it. The readers of Thalaba will remember the fine scenc in which the witch Khawla procures the plant to form part of the waxen figure of the Destroyer. I have seen the plant growing in the Cambridge Botanical Gardens; it is not uncommon in Crete and Southern Italy; its fruit is narcotic, and its name is probably derived from *mandra*, an enclosed, overgrown place, such as forms its usual home.—*Nature*.

COLONIZATION IN FLORIDA.

OFFICE OF THE NASSAU CO-OPERATIVE COLONY OF FLORIDA,  
35 Bayard street, New York.

Hearing that numerous inquiries have been addressed to your journal in regard to colonies organized for settlement in Florida, I have taken the liberty of inviting your attention to the prospectus of the Nassau Co-operative Colony. We have selected a tract of land, about twelve miles from Fernandina, on which we propose to locate a colony of determined and skilled workers, both agricultural and mechanical. The tract is well adapted for the end in view, being extremely healthy. The soil is as good as any in Florida, and from the abundance of cypress and other timber, could be utilized in the various branches of mechanical enterprises.

There are many places open for settlement, but care should be taken to select those that offer the quickest as well as the best return for the labor and limited capital of the worker. A few facts are presented by Florida offers greater inducements—immediate and prospective—than other States do:

1. The army statistics show it to be the healthiest State in the Union, and Northern people have become to consider it the Sanitarium of the United States.

2. Every month in the year vegetables can be grown in the average soil of any county in the State. Thus there need be no anxiety in regard to having plenty to eat if one will work for it. In the spring of

each year vegetables can be grown and placed in northern markets at prices that will pay a handsome profit. In the fall of the same year a crop of sugar cane can be raised that will pay equally well. Thus they have for their labor a greater return than can be gained elsewhere in any agricultural district of older States.

Fruits in time can be made to pay, but poor people should not build too much on that prospective interest. By skillful care and management they can be made to pay, but fruit raising requires persistent and well-directed labor.

Respectfully yours, etc.,

CHAS. H. FENTON, President.

HINTS ON HYACINTHS.—Avoid late planting, which is fatal to success, however large and matured the bulbs may be. A successful bloom from Hyacinths invariably depends upon obtaining a slow and mature formation of the root-fibres before the leaf growth, either in the dark recesses of a room, for glass culture, or by coverings of soil in garden borders for pot culture. Where cool and dark recesses are not at hand, the glasses may be heavily screened from light by sheets of paper; or some similar means. Never place the glasses upon a mantel-piece or shelf within the influence of fire heat during the process of growth. Avoid a low water mark in the glasses by keeping it to a level with the base of each bulb. To insure vigorous growth and good bloom, the most favorable exposure to sunlight, and occasional fresh air when mild, are essential. All extremes of temperature should be avoided, and for the earliest blooms, more especially in severe weather, the glasses should be removed nightly to a side table until morning, and then replaced. To stimulate and strengthen the growth, dissolve a pinch of sulphate of ammonia occasionally in the water after the bulbs are exposed to the light.

—When in classical times a man had done some great thing, he was honored with a public triumph, a wreath of laurel or of bays. Now he is at all events honored with the esteem and regard of others. We are right by honoring the inventor of B. T. Babbitt's Toilet Soap, whose past achievements have reached a fitting complement in the new toilet soap, which is simply the greatest luxury and comfort possible to man. Pure and honest, it can be absolutely trusted as the best thing in use. —*Adv.*

Sea and River Fishing.

FISH IN SEASON IN NOVEMBER.

Black Bass, *Micropterus salmoides*; Weakfish, *Cynoscion regalis*.  
*M. nigricans*; Bluefish, *Pomatomus saltatrix*.  
Mascalonge, *Esox nobilior*; Spanish Mackerel, *Cybinus maculatus*.  
Pike or Pickerel, *Esox lucius*; Cero, *Cybinus regale*.  
Yellow Perch, *Perca flavescens*; Boule, *Semotilus palomus*.  
Sea Bass, *Sciaenops ocellatus*; Kingfish, *Melicircurus nebulosus*.  
Striped Bass, *Morone americana*; White Perch, *Morone americana*.

FISH IN MARKET.—Fish in fair quantity. Bass, 20 cents; smelts, 25 cents; bluefish, 15 cents; salmon frozen, 35 cents; mackerel, 15 to 25 cents; green turtle, 15 cents; terrapin, \$18 per dozen; halibut, 18 cents; codfish, 6 to 8 cents; blackfish, 15 cents; flounders, 12 cents; cels, 18 cents; lobsters, 10 to 12 cents; sheephead, 25 cents; scollops, \$1.50 per gallon; soft clams, 30 to 60 cents per hundred; whitefish, 16 cents; salmon trout, 18 cents; muscalonge, 18 cents; hard crabs, \$2.50 per hundred.

—On the 19th of this month a fine large roe shad was caught at Peekskill on the Hudson, and was exhibited by Mr. E. G. Blackford, in Fulton Market. Such incidents are phenomenal, and may be regarded as freaks of nature.

MOVEMENTS OF THE FISHING FLEET.—The arrivals for the past week have been principally confined to the Banks and Bay fleets, the vessels detained so long at Canso by unfavorable winds having put in an appearance and landed their fares. The number of arrivals from the Bay since our last issue has been 12, and the receipts 1,550 barrels. The stock has nearly all been taken, and the market is firmer. The Shore fleet are nearly all in, and the season about closed. Forty vessels, including a few from Gloucester, were reported off Cape Cod on Wednesday morning, taking mackerel. There have been eight arrivals this week. The Bank fleet make short trips, and mostly have light steaks. Twenty-eight arrivals have been reported the past week, bringing 445,000 lbs. codfish and 275,000 lbs. halibut. The number of arrivals from Georges has been nine, and the receipts 90,000 lbs. codfish. Total number of fishing arrivals for the week fifty-seven.—*Capo Ann Advertiser*, Nov. 16.

ARCTIC WHALING FLEET.—Eleven ships of the Arctic whaling fleet took the risk of remaining in that ocean late in the season and, after Oct. 1st, caught 73 whales. This catch is nearly twice as large as all the previous capture of the fleet for the season. The twenty ships previous to October had only taken 44.

LIKE EAT LIKE.—A bass was taken recently in the Juniata which was found to contain a young muskrat weighing a half pound. During the recent passage of 150 bass from Centre to Clearfield County, two of them ejected two field mice. Lanman, in his work on fishing, speaks of capturing a very large trout with a live mouse, which he tied to his line just above the hook and allowed the little rodent to swim on the surface of an extensive pool. This experiment was resorted to only after all other bait had failed to take the noble fish.—*German-town Telegraph*.

Black bass and trout have an hereditary grudge against the field mouse and muskrat, both of which feed largely upon their spawn. We are not prepared to affirm that the fish swallow the rodents so much because they love them as to retaliate in kind for their depredations upon their embryo kindred, though, possibly, a proper young field mouse, purile and tender, makes an attractive bait.—[Ed. P. & S.]

TO VARNISH A FISHING ROD.—*Land and Water* gives these directions for varnishing a rod: "Half a pint of linseed oil and a little India-rubber scraped fine; put them over a slow fire and stir them until the rubber is dissolved; then boil and skim it; apply it warm, and do not use a fine, thin quirk; it will preserve the rod from being worm-eaten, and from other injuries, and is very durable." Another way: "Take two ounces of caoutchouc and pare it into thin slices; then heat

an iron ladle, such as plumbers use, until it is so warm that a piece of the caoutchouc being thrown into it will evaporate in a white smoke (if it emits a black smoke and burns, it is too warm); then put in all the India-rubber, or caoutchouc, and when it is melted add a pint of drying oil, and keep stirring it until the oil is thoroughly warm. When cold strain it and lay it by for use. It may be used either warm or cold. Linseed oil, into which a few drops of neatfoot oil has been put, which has lain in a lump of roach lime, to make it dry soon, will answer as well as boiled oil."

A BALTIMORE FISH STORY.—This is from Baltimore. Captain Johnson, of the *Tecumseh*, goes fishing for business, and this is what happens to him. Off Bodkin Creek he lets go his line for perch. In twenty minutes he hooks thirty perch. Presently Captain J. got a strong bite and he pulled. It was so heavy a fish that the skipper had to play his catch. Up came a roek perch; but just as the fish was out of the water a pike made for that perch, and swallowed perch, hook, line, and all. Hitching a half-inch rope to the line, and giving it a turn around the capstan, at last the double catch was landed. In the pike's stomach there was found an English penny of the date of 1803, and a brass button. As the captain is fishing off Bodkin Creek, mysterious disappearances in the neighborhood should be looked up. Maybe a tailor committed suicide there at the beginning of this century? The brass button makes us think it quite possible.

The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye, of the coat; and of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outline, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed, signs of suffering, etc.

THE TENNESSEE FIELD TRIALS AT NASHVILLE.

On Thursday evening last terminated the fourth annual field trials of the Tennessee State Sportsman's Association. What with the admirable and liberal management of Mr. Kirkman, the president, and of Mr. Pritchitt, the secretary of the association, and the almost limitless ranges of the Belle Mead estate, so generously placed at the disposal of the association by General Harding, these trials for the year 1877 were by far the most interesting yet held in this country.

As you have already published a list of the entries for the trials, it only remains to give your readers a list of the winners without encumbering your crowded columns with minute and tedious details of the contest, the official report of which is appended, signed by Mr. Pritchitt, the wide awake and efficient secretary of the association.

THOUGHTS SUGGESTED BY THE FIELD TRIALS.

Of course the object of all field trials is to test the powers of the contending dogs in the field, and accordingly the rules for their conduct are established with a view to exclude the element of chance and enable the best dog to win without regard to chance; but that field jade, Fortune, will intrude herself in canine as well as human affairs, and through her meddling on this occasion was established the truth of the old scriptural maxim that "the battle is not always to the strong nor the race to the swift." Ergo, in field trials we cannot be sure that the best dog will win. Another thought. It is an old adage that "the winning horse or dog is of the best color." Now it will be evident to all who witnessed them that the field trials at Belle Mead utterly destroyed, at least as regards dogs, the credit of this old adage; for in the rank cover of that exuberant and red dogs and all others of a neutral color were almost invisible when contending with their rivals of more decided coats—the white and black and the all black. Hence it is safe to draw the conclusion that in selecting a dog, color is next in importance to nose and action.

Again: the professional breakers of setters and pointers who aspire to achieve a reputation at these trials, will naturally train their pupils to conform to the rules under which the trials are held, and of course, under such training, the more timid puppies acquire, under dread of the lash or spiked collar, an over-cautious sneaking action, which savors not a little of the contemptible; a gallant, bold, free ranging dog may flush more birds than his competitor trained especially to win at a field trial, but in the long run he will find more birds in a style more pleasing to a gentleman than to a mercenary hunter.

What added immensely to the interest of the late trials was the rivalry between the native and the imported—so-called blue blooded dogs. A well-known writer on dogs, an American, and an importer of some good English dogs, was so indiscreet as to denounce our native setters and pointers as mongrels. This was like setting fire to a powder magazine. A tremendous explosion ensued, and a feud has grown out of it as virulent as that between the Capulets and the Montagues. Smith, of Strathroy, backed by the gallant, indefatigable and irrepressible "Mohawk," led the van of the blue blood. Confronting them stood the stalwart Memphian "Gib" with those tall sons of "Anack" and Tennessee, the Campbell bells of Maury, on his 'right and his left. But we writers



## Game Bag and Gun.

### GAME IN SEASON IN NOVEMBER.

Moose, *Alces, maculis*.  
 Elk or wapiti, *Cervus canadensis*.  
 Hares, brown and gray.  
 Wild turkey, *Melagris gallopavo*.  
 Woodcock, *Fallicolpa minor*.  
 Ruffed grouse, *Touaca umbellata*.  
 Plover, *Charadrius*.  
 Godwit.  
 Rails, *Rallus virginianus*.  
 Snipe and Bay Birds.  
 Cariboo, *Tarandus rangifer*.

Red Deer, *Cervicæ virginianus*.  
 Squirrels, red, black and gray.  
 Quail, *Opizæ virginianus*.  
 Pinnated Grouse, *Cupido Cupitonia*.  
 Curlew, *Numenius argyrius*.  
 Sandpipers, *Tringa*.  
 Wilets.  
 Road or Rice Birds, *Dolichonyx orizivorus*.  
 Wild Duck.

"Bay birds" generally, including various species of plover, sand piper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets etc., coming under the group *Limacole* or Shore Birds.

**FOR CURRITUEK.**—The Currituek Sound boat leaves Norfolk every Monday and Thursday at 6:30 A. M., and on Saturday at 5 A. M. The Saturday boat will be discontinued toward the close of the month.

**CANADA.**—Mr. George M. Fairchild, of this city, has just returned from his annual fall trip to his old sporting grounds at Valcartier, P. Q., Canada. He reports poor success. He found the lakes and rivers all frozen, and almost a foot of snow on the ground. Cariboo are very abundant, and a little later there will be fine sport still-hunting them.

On the cars between Quebec and Montreal he fell in with that genial sportsman and accomplished gentleman, your correspondent "Stansted." He had been down on the Inter Colonies, but reported poor shooting; too much ice. This gentleman is a most clever writer, and has already furnished FOREST AND STREAM with some capital letters of his hunting trips north of Quebec.

**NEW HAMPSHIRE.**—Webster, Mer. Co., Nov. 12.—During the last two weeks there has been a fair sprinkling of ducks, a few geese, but none to stop. Shrikes, snow buntings, cross-bills and pine finches have made their appearance. Trapping poor.

**MASSACHUSETTS.**—Salem, Nov. 16.—Quite a flight of geese. 16 were shot yesterday at Essex Ponds; some black ducks are also shot. Some fair bags of quail have been made of late. Marsh birds are done. An occasional snipe may be started, and also ditto for woodcock. W. Newburgh states that ducks are unusually scarce in the Merrimack and Artichoke Rivers this fall. We have had light spits of snow, and ice quite thick, with ground frozen.

—We beg to acknowledge from the Rod and Gun Club, of Springfield, an invitation to partake of their annual game supper, to take place at Hayne's Hotel on the 23d.

**New Bedford, Nov. 17.**—The shooting season has opened well in this vicinity. Partridges and quail plenty. Also some good shots at woodcock, averaging five and six birds per day to sportsmen with good dogs, who are not afraid to face a thicket of scrub oak and cat briars, even if they come out with shirt and pants hanging in shreds. Black ducks and sea fowl plenty.

**North Cohasset, Nov. 15.**—Season for coot shooting about finished; has been very poor; only four or five days all good gunning. Last Sunday large flight of geese; thirty-seven killed in three stands. Very singular incident occurred: five young geese decoyed by old gander into yard, and captured without firing a gun. Fair yellow-leg shooting for a week past, and some bags of eight and ten were taken. No woodcock seen this fall. Expect good brant and whistler shooting next week.

**Rhode Island.**—Newport, Nov. 14.—Shooting not good; wild fowl scarce. Weather too pleasant to allow birds to come much to the shores.

**NEW YORK.**—Hornellsville, Nov. 19.—Quail shooting has been very poor. I do not think a dozen have been shot this season. For every quail in the country at least two traps are set.

**Stratford, Nov. 16.**—Sportsmen may shoot all day at the black ducks, coots, etc., without any intermission of the sport.

**FOX HUNTING IN LIVINGSTON COUNTY.**—The sportsmen of Buffalo have been following the example of their Metropolitan brothers and indulging in the fox hunt.

**Bloomington, Nov. 17.**—Fine sport this week. Miller and myself in three days' shooting bagged four woodcock, two quail and twenty-three partridges.

**Chatham Village, Nov. 19.**—The hunting of ruffed grouse has been very good about here this fall, and the fox hunting is very good. Have been on a few times, and ran with another hunter; we have bagged five old red foxes. We have very nice running hounds, and expect to have some fine runs this winter.

**Syracuse, Nov. 16.**—John H. Mann and his son, E. H. Mann, returned yesterday from a day or two spent on Onondaga Lake. They were brought in eleven partridge—nice plump specimens as were ever shot—seventeen ducks and one cormorant. Such a bag of game was well worth looking at. The cormorant is very rare in this vicinity. Mr. Mann states that he has seen but one other here in fifteen years. It will be sent to the taxidermist for preservation.

**Syracuse, Nov. 17.**—A large woodcock recently bought at my store weighed 10 3/16 ounces. It is the largest I ever saw in this country, and beats one that I killed in 1851 weighing 10 ounces. I also bought a wilson snipe this season that weighed 6 3/16 ounces. I have record of other snipe killed at different times weighing 6 and 6 1/2 ounces. Have you any record of either woodcock or snipe weighing over these weights? I have weights of ruffed grouse, rabbits, etc., that I could furnish if of any interest to your readers. J. H. M.

**Kingston, N. Y., Nov. 14.**—Partridge are very plenty in this section this fall, and selling from the markets for 40 cents a brace. The most successful bird hunters in this section are Leu Bogart, George Styles and Joe Degraff, each having been out several times last week and bagged a fine lot of game.

**NEW JERSEY.**—Kinsey's Ashley House, Barnegat Inlet, Nov. 18.—Brant for past two days have made their appearance in large numbers. Geese also. C. Parker and yours truly bagged twenty-one ducks, three geese and six brant yesterday. B.

**MARYLAND.**—Elkton, Nov. 17.—A quail, with a snow-white head, was shot by Mr. Wm. A. Wright, of this place, on Saturday last.

**PENNSYLVANIA.**—Greenville, Nov. 12.—Two parties of sportsmen have gone off on hunting expeditions; one for deer shooting in Michigan, the other to McKean County, this State.

**Hanover, York Co., Nov. 16.**—Game, such as pheasants and partridges and rabbits, is very scarce in this section. The deep snow and extreme cold weather last winter caused most of the birds to perish. Along South Mountain, about twenty-two miles northwest from here, deer, wild turkey, pheasants and partridges are said to be abundant. Charles Bange, Lawson Emmert and Edward Thomas, three young men of this place, recently returned from a day's hunt in that locality, having shot fifty-three partridges.

**VIRGINIA.**—New Store, Buckingham Co.—A correspondent of the Richmond Whig says: "The hunting law has had the good effect of making every kind of game very plentiful. On election day two deer were killed in the neighborhood by parties before coming to the polls. Something like a dozen have been killed around here this fall, and any number of turkeys are being killed daily. Squirrels and partridges are very abundant."

**Winchester.**—A bald eagle was recently killed near Winchester. It measured seven feet and eight inches from tip to tip. Game of all descriptions is abundant, including wild turkeys and pheasants.

**Deer in Rockingham.**—Our old friend, John Harman, residing near Ottobine, Rockingham County, Old Virginia, has been deer hunting within the last two weeks near Sugar Grove, Pendleton County, New Virginia, where he did some remarkable shooting. He was out on the 25th of October, when the dogs started three deer, two does and a fawn, and Mr. Harman, with a double-barrelled shot-gun, brought down all three at two shots, desperately wounding the fawn and killing a doe at one shot, and then turning the other barrel upon the other doe with fatal effect. The next day Mr. Harman had the good fortune to bring down a fine buck. The deer were in first-rate condition, and furnished Mr. Harman and family with venison for some days. There were six hunters in the party, and the result of the expedition was nine deer, our creek shot from Ottobine killing four of the nine. This is the first instance in which we have known a hunter to kill two deer at one shot. Mr. Harman informs us that the woods are full of game of all kinds, the squirrels moving in large bodies, as if migrating to new quarters.—Rockingham Register.

**WESTERN VIRGINIA.**—Charleston, Nov.—Quail were never more plentiful. The season warm, being quite dry, the young birds were not destroyed by the summer freshets. Woodcock are scarce, and as for snipe we have no "fall" flight, which I look upon as rather strange, as they are quite numerous in the spring. Pheasants are abundant. Rail are almost unknown in this section of the country, but as long as there is plenty of quail we do not object to the scarcity of other birds.

**NORTH CAROLINA.**—Currituck, Nov. 14.—Ducks are plentiful, but the weather is too warm yet to keep them. It looks, however, as if there would be a good season.

**ARKANSAS.**—Fort Smith.—A pelican was recently killed here which measured eight feet from tip to tip of the wings.

**INDIANA.**—Brazil, Nov. 13.—Quails plenty, and weather fine for shooting. Bags ranging from twenty to fifty birds a day are not uncommon. There is a scarcity of good dogs here, and I think sales of good setters or pointers could be made in this vicinity.

**Indianapolis, Nov. 12.**—Bears, deer and turkeys abundant in the Arkansas battues across the river.

**OREGON.**—Eugene, Nov. 7.—Geese and duck shooting prime on the prairies. Bags from two to twenty-three geese daily. Remington breech-loaders much in use, and justly, for they throw B shot clear through ten-pound "honkers." Mallards very fat, and shot within a mile of town.

**CALIFORNIA.**—Pine Gulch, Bolinas, Marin Co., Nov. 7.—I read in other Eastern journals of would-be sportsmen shooting coots on the Sound. Bah! they should be here. Our mallards, teal, sprig, etc., cover our bay, making grand sport by boat, or along shore with a good dog. Then, too, to squat on a dyke of the reclaimed marsh after sunset and drop the birds as they approach for a taste of fresher water. Practice at "Conlin's," and some experience before the butts at Creedmoor with a military Remington, sends a sure bullet now from a Henry repeater at a bounding buck occasionally, for the red-woods on the ridge shelter plenty of such game by day, and our dogs jump them in the chapparal of the gulches in early morning. My memoranda of "spoils"—hunter's spoils I mean—show nearly a second hundred of quail, too, though I shoot only for our table. But, pardon me, I am getting on the wrong target. I only write in the hope that the enclosed article may be of some service to you, and thereby enable me to make some return for the pleasure I enjoy in reading my always welcome FOREST AND STREAM.

**Los Angeles, Nov. 6.**—Quail shooting here this season fully up to the average in the valley. Parties shooting for the San Francisco market report fair profits. It is stated, I think with truth, that in some cases in ranges most affected by the last season's drought, the quail failed to pair off, and maintaining their old organizations as bevers, reared no broods. However, if this be true in isolated cases, it has not affected the shooting on the Santa, San Gabriel and San Fernando, nor in the foothills on that side of the Coast Range.

Jack snipe, wild duck, gray and white geese put in an appearance with last week's rain, and the shooting at La Cenega, Ballona, Almaritos, Las Bolsas and Laguna del Negro is good; market well supplied, except with snipe.

But few bear have been killed in the county this fall, although in the neighborhood of Elizabeth Lake, grizzlies have killed an unusually large number of cattle. Venison, deer and antelope reasonably abundant, but not of extra good quality. In parts of this county deer are unusually poor in flesh. In the San Antonio Mountains the acorn mast is unusually good, and deer are in good order, but not accessible for market. Gray squirrel abundant in the foothills, as are also wild pigeon. A few plover are reported on the plains, but none have yet been seen by the writer. They are usually most numerous after the December rains.

—The Tule Shooting Club of San Francisco takes things in the easiest way. Might we say, *à-tu-tu dulci*? They have a floating ark, fitted up with kitchen, dining-room, sitting-room, library, billiard saloon, ladies' rooms, etc., etc., and most every thing save an elevator. Thus do the hardy sportsmen of the Pacific State navigate the stormy waters of the San Joaquin and Sacramento.

**SHOT DISPLAY.**—Messrs. Tatham & Brothers, whose shot advertisement may always be found in our columns, have sent us a very handsomely framed sample of their manufacture. One could hardly imagine how buck shot and bird shot could be arranged so artistically. On a back of light polished wood, in a picture frame, are enclosed in small circular cases every variety of small projectile, from OO buck shot to No. 12 shot ending with the small dust shot, used by ornithologists. The products manufactured by Messrs. Tatham & Brothers have been known for many years to the sportsmen of the United States. Roundness, solidity, smooth polish must give to shot accurate and uniform flight, range and penetration. It is interesting to know that from FF, of which 24 go to the ounce, of Messrs. Tatham & Brothers' extra fine dust, there are 84,021 pellets to the ounce. At the Centennial, with the award received by Messrs. Tatham & Brothers for their patent finish drop and buck shot, was added in the Judge's report these words: "Exact uniformity of size, truly spherical form, high degree of finish, and general excellence."

**KEEP A RECORD OF YOUR GAME.**—Our old friend Mr. J. H. Mann, of Syracuse, has always been in the habit of noting the game he kills, and the weights. This record was commenced in 1854. Since that time many large woodcock have been shown him, but none that weighed as high as ten and three-sixteenths ounces until a gentleman from Bridgeport lately brought one in of that size.

**FOR PREVENTING RUST—HOW TO LOAD A GUN ACCORDING TO SHOT.**—A Brooklyn correspondent writes us: "Are you aware that Vaseline (or petroleum jelly) is a very good lubricating material for shot guns and rifles? It never gets rancid, and prevents the oxidation of steel and iron. Has been used by myself for some time, almost since its introduction into the market, and find that it keeps the barrels of my rifles and guns bright and free from rust. Have also used it as a lubricator on the outside of the barrels during the time I was bay shooting, and found it to prevent the rusting so prevalent upon the salt water."

In one of the previous numbers of FOREST AND STREAM I noticed an answer to a correspondent who asked, "How shall I load my 12 bore?" in which you decided that No. 8 and No. 4 shot require the same amount of powder. My experience tells me that with my 10-bore 2 1/2-pound Greener I must use 4 dra. C. and H. No. 5 to 1 1/2 oz. No. 8 shot; 3 3/4 dra. C. and H. No. 5 to 1 1/2 oz. No. 4, and 3 3/4 dra. of the same powder to No. 2 shot. The larger the shot the less amount of powder required to obtain a good penetration and pattern. Using 4 dra. of powder to No. 2 shot, for instance, would scatter the shot too much, although my gun is shot. The above is the result of a trial at paper targets, with shells carefully loaded.

[Thanks to our correspondent. We shall always be glad to receive results of similar experiments made by our friends.—Ed.]

**WHO MADE THE FIRST CHOKE-BORE?**—A Boston correspondent says:

I was somewhat surprised at your answer to the question proposed by C. E. D. in paper of Nov. 1. A choke-bore gun is no new idea. I have a gun now in my possession, choke-bored by the veteran gunsmith, Nathaniel Whitmore (now carrying on business with his son at Mansfield, Mass.), twenty-five years ago; I can show dozens of them thus bored twenty or more years since. I consider Mr. Whitmore the pioneer in this mode of boring guns, and his many friends think he can bore equal, if not superior, to any other man living.

[This choke-bore invention, and who made the first choke-bore, we fancy, after a while, will be found out to be contemporaneous with Tubal Cain.—Ed.]

**QUITE CONVENIENT.**—We take the following from the *Rocky Mountain Husbandman*, published in Diamond City, M. T.:

A couple of antelope appeared upon Diamond Bar, about 300 yards distant, yesterday morning, causing a few minutes excitement among our sportsmen and giving an opportunity for display of marksmanship. G. A. Hampton brought down one from the stoop of the *Husbandman* office. Frolicking nimbly upon the grassy hillside, the fleet-footed gazelle leaped high in the air at the crack of his rifle and tumbled down the forty feet embankment. M. V. B. Green laid down his stick and rule and dropped the other in its tracks the first shot, as it was maneuvering to learn the whereabouts of its mate. He says it is the "fattest take" he has had for some time. Not ever, journal is published in a land where such choice game can be hunted from the office door.

[There are not many newspaper offices so conveniently situated. Perhaps the landlord of the *Husbandman*'s office received a big rent on account of its being a central locality and in the midst of game. We might wait all day on the back stoop of the FOREST AND STREAM AND ROD AND GUN office and not get such a chance. Next time, however, that antelopes come promiscuously around our sanctum we shall be quite satisfied with a single antelope.]

—In *Land and Water* the information is given that if a little oil be poured on shot their delivery will be much closer. This we have tried ourselves, and know to be effective. We remember on one occasion having seen a wildcat, and a good big one, killed by a load of shot at a fair distance. We do not remember the size of the shot, but are pretty sure the shot were not large. The way it was done was that the trapper (for an old hunter he was) ran to a wagon, took from the hub of a wheel about as much thick grease as he could put on his thumb nail, and dropped it on top of the shot before driving in the wad. On examining the cat, the charge seemed to have balled, and might have been covered almost with a silver dollar. This is a hint worth knowing.





A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INSTRUCTION IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY:

PUBLISHED BY

**Forest and Stream Publishing Company.**

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.  
(POST OFFICE BOX 2382.)

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

**Advertising Rates.**

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* \* \* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, NOVEMBER 22, 1877.

**To Correspondents.**

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company,  
**CHARLES HALLOCK, Editor.**

T. C. BANKS, Business Manager. S. H. TURBILL, Chicago, Western Manager.

**A HOME FOR FRIENDLESS GIRLS.**—A benevolent institution on the corner of Seventh avenue and Thirteenth street, is doing a quiet but noble work by gathering in young and friendless girls, and providing them with shelter and protection till they can be returned to their friends, or placed in permanent homes in Christian families in the country. About two hundred are thus yearly provided for, and many touching scenes are witnessed as these wanderers find themselves once more housed and protected. Mary —, an interesting child of eight years, whose mother was buried from a tenement house, and she, left in the streets, wandered for weeks about the city, nobody believing her story, and she not knowing where to get help. She was one day taken from a door-step, where she sat crying, and brought to the house. "Never," says the Matron, "did I see a child weep harder than she did when told that she might stay." This is but one instance among many that might be mentioned. The institution lives by voluntary contributions, and as winter is approaching it needs help. Any one wishing to give to this worthy object can send directly to the Home, 41 Seventh avenue, or to Mrs. Rev. Dr. Hallock, 132 West Thirteenth street. A Fair held at the Home, commencing Wednesday, November 21, and continues through the week.

**PHILADELPHIA GRAND NATIONAL DOG SHOW—CO-OPERATION OF THE PENNSYLVANIA KENNEL CLUB.**—We are glad to announce that Dr. Twaddell is actively interested in the dog show to be held at Philadelphia, and we are in receipt of the following communication from the Pennsylvania State Kennel Club, which gives its warm approval of the exhibition. This action of the Pennsylvania Kennel Club sets then at rest certain carpings in regard to the character of the Philadelphia Show:

"The Pennsylvania State Kennel Club, in order to dispel any erroneous impression that the bench show for dogs, to be held at Philadelphia from the 30th to the 30th of November, is merely a local exhibition, do hereby announce that they will be associated with the gentlemen whose names have already been published as patrons, and under whose united patronage the exhibition is to be given.

JOHN C. JOHNSON, President.

WM. R. KNIGHT, Sec. pro tem."

**OUR QUESTIONS AND ANSWERS.**

WE wish to put a flea in the ear of our correspondents respecting this department of our paper.

It is more than a pleasure to answer the numerous questions put to us—it is a duty. We are only too glad to act as Cædippus for the world at large, in fact, to become a kind of Providence for those "who want to know, you know." Of course, we lay no claim to infallibility, and should the Sphinx occasionally get the better of us, it is certainly from no carelessness on our part; for no questions are ever put to us that we do not strive our very best to answer. Either, then, the FOREST AND STREAM AND ROD AND GUN must be very popular, or the belief in our ability to solve all kinds of intricate problems is well nigh universal. Each mail brings to us an avalanche of queries. "Bring us this day our daily questions," we usually say with becoming cheerfulness.

Puzzled! Of course we are sometimes. It would take a very gifted human being—a Solomon, in fact, with a cosmical brain—not to be puzzled over the questions. Would the reader like to have an example of how an answer has to be chased up? Suppose we follow the story attached to a certain paste-board box. It came from beyond the Rocky Mountains. All that box held was a wing, a claw and the head of some bird. Not being a Coues, of course it was not to be spotted as to species at a single look. Down come from the shelves our entire ornithological library. The books are hunted through. We find many birds looking something like the specimen, but not exactly. We cannot give a satisfactory reply. We send out the box and its contents to a noted naturalist who lives six miles from the office. That wise man returns the box and bird remains with two brief, dispiriting words, "Don't know." We worry and fret over that bird all day. We are perpetually conscious of the question, because the bird fragments are no longer pleasant to the smell. But the FOREST AND STREAM office is the headquarters for the naturalists. There just happens to come a distinguished Smithsonian professor. Before he has hardly a chance to greet us, that box is shoved at him. The professor looks at the specimen critically for half a minute, then says, "Why—yes—it is so and so. Don't you see the whole trouble is that the bird—a rather rare one—has got on his winter plumage?" We smile wisely, but note the answer down just as quick as we can for fear it may escape us. Now when the answer about this bird is printed, the space it will occupy may not be over two lines, yet it has been a source of anxiety for forty-eight hours. The casual reader who glances over "Answers to Correspondents," can have no possible conception of the trouble those answers have caused. Sometimes we telegraph to long distances at our own expense, and this costs considerable money as well as time. We thus purposely enter into some of these details in order to explain how in these two or three columns the work is done, and wish to state that these replies are often due to the united labors of some twenty people. In fact, to keep up this page in a consistent way, as much time, money, talent and thought is necessary as would be required to produce a whole paper. Specialists can readily reply to certain questions, though in the many curious queries put to us in regard to guns and ammunition, and all that relates to fire-arms, we frequently have to call in the assistance of the leading experts of the country.

Nothing gives more anxiety and care to us than the replies concerning the innumerable dog maladies. At times it seems to us that an epidemic must be raging through the land. No end of thought and prudence must be used in diagnosing a canine case from a letter. We frequently receive as many as six closely written pages in regard to the condition of an animal, every word of which has to be closely studied. Occasionally we almost fancy that an admirer of the paper had at his leisure been storing away a whole series of questions, and suddenly made up his mind to send his entire harvest to our mill to be ground, for in one and the same batch, lumped as it were, is tumbled out before us the most heterogeneous mass of things. In one letter we have solved knotty points about dogs, guns, canoes, pneumatics, billiards, prices of real estate, the best place to send a boy to school, the price of coffee, cooking terrapins, an explanation of the moons of Mars, and some other minor matters.

Sometimes, we regret to say, very silly questions are asked of us. Things of this character try a man's patience, even if he be an editor. Changing but very slightly the article in question, we give pretty nearly a copy of a series of queries:

"1. I think a portable gridiron for camping out would be a good thing. don't you?—a gridiron which could be hinged and a party could carry in their vest pocket. 2. If invented, could I get it patented? 3. Would you look over the patents and see if any one has ever thought of such a thing? 4. What would it cost to have it patented? 5. Ain't patent lawyers mostly frauds? 6. If I did get up such a gridiron who would make them in quantity in your city? 7. Do you think I could interest the market? 8. Could it be introduced into the army? 9. Would it not replace a frying pan? 10. Would you have the slats of the gridiron to run across or slantwise? 11. Perhaps a frying pan with a changeable bottom to turn into a gridiron would be what was wanted? 12. How would it do for you to offer my gridiron as a premium to your new subscribers? 13. If I advertise with you will you take it out in aridrons? Please answer by return mail." [Not a postage stamp enclosed.]

Occasionally there comes to us a series of questions on dog breaking, which embrace the whole method. Simple questions of this kind we cheerfully answer, but when an encyclopedia is wanted we must refer those of inquiring minds to the

books specially printed for these purposes. Our life would be too short did we endeavor to reply to such.

In glancing over the files of our paper it is wonderful to think of the mass of valuable information we have imparted. How many nice questions in fish culture, in natural history have been determined! When we consider the amount of labor expended over these particular columns we forget all about the toil, remembering how in our humble way we have been enabled "to throw light into dark places."

**OUR AWARD AT THE CENTENNIAL.**—We have to acknowledge a diploma and medal, awarded to us for a "Collective Exhibit of Fishing and Hunting Implements," No. 12, Group XXVIII. Though our hours have been very slow in coming, we appreciate all the same the distinction. May our successors in 1877 (for the FOREST AND STREAM AND ROD AND GUN will certainly exist in all forthcoming ages) be able to thank some future Director-General Goshorn.

**LEADING NEWSPAPERS.**—This is the name of a pamphlet published by Mr. H. P. Hubbard, the well-known advertising agent of New Haven, Conn. The title page is most happily conceived, for here are displayed the various heads of all the leading papers in the United States. In this assemblage we are pleased to notice that the FOREST AND STREAM AND ROD AND GUN occupies a conspicuous position. Increasing business has forced Mr. Hubbard to change his base, and he now occupies spacious quarters of the City Bank of New Haven. As a perfectly reliable advertising agent we take great pleasure in recommending Mr. Hubbard. Not only will advertisers be perfectly satisfied with their agent, but the newspapers will find Mr. Hubbard prompt and reliable.

**A NEW PAPER.**—The *Illustrated Dramatic and Sporting News*, published by Henry Leslie, made its appearance last week. The cut on the title page, save that the order of the characters is reversed, is precisely like that of the *London Sporting and Dramatic News*. We may suppose, then, by the preference given to this transposition of the words, that the new journal will give great attention to dramatic news and to reviews of theatrical performances. The portrait of the late Edwin Adams recalls the pleasant features of the dead tragedian, and there is an excellent picture of the funeral services of this actor in Philadelphia. As grave and gay must be united, we see an illustration of that comical play, the "Pink Dominoes." Sporting matters will find a place in the columns of the paper. In point of typography and general neatness the new aspirant for public favor is excellent.

**VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.**—No. 3.

BY THE EDITOR.

NOVEMBER 21, 1877.

MY FRIENDS: In fine weather prepare for foul. Overcoats, blankets and waterproofs should invariably form a part of a sportsman's summer outfit for the higher latitudes. One can never tell what a day may bring forth. Tempest often follows calm, and cold succeedeth sunshine and warmth without phenomenal warnings intelligible to ordinary observers. Without requisite wraps the voyager is certain to feel a sense of helplessness or dependence and a constant apprehension of trouble to come, which a person who has judiciously provided himself therewith never need entertain. I always mean to travel with a complement of things necessary, from rubber boots to mackintosh and sou'-wester. I am particular in giving this delicate hint, because I find that even experienced people are prone to pin their trust upon the rosy appearances of mid-summer atmospheres, which occasionally prove as deceitful as the smile of a coquette.

The sea was boisterous on the August day when I left Petoskey on my trip to Charlevoix, sixteen miles down the coast, and the distressed little steamer, Van Raalte, rolled and thumped at the end of her pier, and strained at her hawsers like a young Samson in irons. The big waves thrashed her seaward side, and the spray beat over her deck. Nevertheless, Capt. Dodge hung on bravely to his wheel, and never once heeded the threats of the sheet-iron Iodian on top of the funnel behind, who menaced him with uplifted tomahawk. Such empty demonstrations could never make the captain dodge or swerve from duty. At the end of the three hours' run, most of the passengers were convinced of the importance of immediate railway connection with Charlevoix. When the town hove in sight, an unbroken line of surf churned the shore as far as the eye could see. A beetling sand cliff confronted the incoming vessel, and apparently shut out all chance of refuge; but as she neared its "swilled and confounded base," the land gradually opened and disclosed a deep and ample passage that led into a land-locked harbor, whose serenely even wintry storms can scarcely disturb. Tall three-masted schooners, tug-boats and yachts, lay quietly at anchor, or moored alongside the bold shores, while the storm lashed itself into a futile rage outside. This snug harbor is really a small lake, called Round Lake, whose outlet is the channel by which we enter. From Round Lake there is a similar channel into Pine Lake, an interior body of water sixteen miles long, with two arms or divisions, each about nine miles in length. It is much navigated by large vessels in quest of bark and cord-wood, and offers pleasure to yachtsmen that few lakes afford. Its scenery is charming. Its shores are enclosed

adulating wooded hills, interspersed with cottages and  
is, and there are ruffed grouse and deer in the woods and  
bass and muscalunge in the waters.

Creek, one mile from Charlevoix, and Deer, Boyne and  
rivers, near the head of the lake, are fine trout streams,  
having a few grayling. At the mouth of both the Boyne  
the Jordan are comfortable inns, with boats to let for fish-  
sailing and shooting parties. Charlevoix itself occupies  
a romantic situation, as our description shows. A por-  
tion of the town, including the hotel, covers the crown of the  
while possibly the greater area is laid out on a natural  
that extends from the little lake to the great outer  
of Lake Michigan. The business part extends in a  
cottage along the side of Round Lake, and is reached by  
a wharf across the outlet. Cooper's Hotel, called the  
"White City House," is comfortable, but there is a grand  
opportunity for a stock company to build a first-class house  
on the crest of the cliff, from which the view is sweeping and  
diversified. From Charlevoix a little steam yacht  
goes twice a day to the mouth of the Jordan, at the head of  
Lake, and it is a novel sight to many visitors to see her  
under way, loaded with excursionists and towing a dozen  
yachts and boats astern, en route for the approved fishing  
grounds. A lively little craft is the "Jennie Sutton," doing  
ten and twelve miles an hour without much ado or waste  
of steam.

Brother Turner had brought with him from Grand Rapids,  
Michigan, and steamer, his Bond (iron-sectional) boat, which he  
has so improved by the construction of a transverse section,  
so used as a "well," that it was completely adapted to the  
requirements of the angler. This section was bored with  
a groove beneath the water line, so that the fish in it could be  
killed at any given time; and while it lengthened the boat  
to sixteen inches, it did not materially change her lines.  
I tested the Bond boat pretty thoroughly for several years,  
and am convinced that it is better adapted for rough work in  
broken and brush-choked water of forest streams than any  
other craft—simply because it is of iron, and because it is  
so conveniently portable by dividing it into sections. Mr.  
Turner's fish-well also makes a capital and secure locker for  
seafood articles while the boat is being transhipped from  
one point to land.

The upper portions of the Boyne and Jordan rivers, and  
head of all the Michigan forest streams, are filled with  
logs and crossed by fallen trees, which make successful naviga-  
tion a problem, to be solved only by tact and much prac-  
tice. In angling, the streams are invariably fished from boats,  
the banks are a tangle, and passage through the woods to  
them is almost impracticable; it is possible to wade, but by  
no means comfortable to do so. Streams are always fished  
from boats, for reasons that will become obvious enough when the  
angler reaches the ground. With a man competent to handle  
a boat this method of fishing is greatly to be preferred. It  
can be made even luxurious. One can scarcely conceive a  
more favorable stream than the Jordan for this kind of work.  
In the first two miles after entering its mouth, the channel  
is traversed by a rush and grass meadow, and the current is  
comparatively sluggish. As the ridge or height of land is ap-  
proached, it becomes very rapid and much broken. For ten  
miles it is simply wide for good fly-casting, and sufficiently  
void of overarching and protruding branches and brush. Its  
waters are four feet deep, clear as crystal, ice-cold and so de-  
licious that one is inclined to drink immoderately. I think  
an old toper might learn to prefer it to beer after he be-  
comes accustomed to it. By making headquarters at Web-  
ster's, a neat log-house about five miles from its mouth, one  
can fish the upper and lower waters to the best advantage.  
Angling can be more delightful than a week's sojourn at this  
place clearing in the woods, a half mile back from the river.  
On the rustic bridge that crosses the stream just at this  
point, the path winds up a moderate hill through a hardwood  
and pine forest, in which large sugar maples are frequent, and  
the visitor no sooner emerges and catches a glimpse of the pres-  
ences than he feels that neatness, comfort and good cheer  
are well within. The surmise is speedily strengthened by abun-  
dant testimony. The clearing contains but a few acres, and  
the adjacent woods harbor numerous deer and bears. Some-  
times the latter are obtrusive. One dark night at ten o'clock  
I heard the howling of a calf which had been tied near the  
edge of the clearing where the well-worn path leads up from  
the river. The appeal roused the inmates of the house, who  
went to the rescue with bull's-eye lanterns, ax and gun.  
The calf was found unharmed, and apparently grateful. This  
fact was revealed and nothing more; but the retreat of the  
delicious bear from his vicinity had been apparently as sum-  
mary as Napoleon's from Moscow. Not a grease-spot remain-  
ed to indicate where trouble had been so near Bruin. His es-  
cape was fortunate—for him. More serious ails have often  
been drawn from the wood, and harder to bear.

In new countries like this earthworms have scarcely had  
time to acclimatize or domiciliate. The angler, therefore,  
must not depend on "worms" for bait. Neither is it practica-  
ble for him to pursue the festive grasshopper with bated  
breath. These insects do not forage much in these parts—at  
least, they have not for ages. Nevertheless, the woods furnish  
abundant materials for lures, and the sportsman needs  
only take his gun and knock over a chance rabbit,  
squirrel, or pigeon to obtain all that he de-  
sires. In utilizing baits of meat, much ingenuity is required,  
and I have no doubt that the marvelous success of my com-  
panion, A. B. Turner, was as much due to his contrivances  
and their preparation as it was to his skillful manipulation

thereof in presenting them to the fish. Diplomacy depends  
largely upon address, and Mr. Turner was plenipotentiary in  
all respects. Hamilton Fish himself never did better at the  
court of St. James, though it is not easy to measure the  
talents of the two gentlemen by the same scale. I've re-  
ceived from Isak Walton and the chosen disciples the most  
approved instructions for dressing baits, but I am free to say  
that I have watched my comrade with an interest that could  
be born only of new developments. One day I had fished the  
lower stream with flies and taken eighteen fair trout, but  
none large. I was satisfied with the result until I saw A. B.'s  
returns. The well in his boat was alive with trout! I think  
he had some eighty in all. I marveled and congratulated,  
and appreciated the graceful consideration which prompted  
him to account for the difference in our catches by explaining  
that fly-fishing in August is not fly-fishing in June. If trout  
are not rising for their food, trailing artificial flies upon the  
surface are not the tactics to employ. If they stick to the  
bottom we must send our lures to the bottom for them. The  
two methods of fishing are as different as can well be imagined.  
However, I prefer the long-range practice to manoeuvres at  
close quarters, though I have none the less respect for such  
admirable tacticians as brother Turner.

One day when returning from a visit up stream where I had  
indifferent success with all manner of baits, artificial and nat-  
ural, I unexpectedly overhauled him and his boatman at a  
bend of the river, and caught him in the act of pitching his  
hook under a tangle of roots. His bait looked as big as a bob,  
and it went down with a plump into the water that showed  
his line to be heavily shot. He had scarcely six feet of  
line out, and he handled his rod as a fencing-master does his  
foil. First he swayed it gently to the right, then he moved it  
to the left a little; then he raised the tip a trifle; and finally,  
giving a smart twitch, he lifted out a one-pound trout, and  
tossed it dexterously into the open "well" in his boat. A  
splash and commotion followed which showed that his box  
was well filled. In a twinkling his hook was in again at the  
same spot, and he pulled out another big trout. Seven more  
followed! By the way, did you ever try to pitch trout at a  
mark? To become expert requires considerable practice. If  
you are proficient at quoits, or have learned in the rudimentary  
school where pennies are used, you may succeed in tossing  
fish into your basket and not miss once. But not otherwise,  
at first. When Brother Turner had emptied his trout platter,  
I drew my boat along side of his and was instructed in the art  
of baiting a hook. Cutting the pectoral fin from a trout of  
medium size, he tied it on the shank of his hook in such a way  
that it looked much like an artificial fly with wings outspread.  
Next he cut a considerable lump of red squirrel meat, and  
thrust the point of the hook into it until no part was exposed  
and tied it on. When completed the contrivance made a very  
respectable sort of a bug. It certainly looked tempting, and  
was well calculated to impose upon the credulity of a trout.  
He said they would take this when all other lures failed.  
Presently we dropped down stream a little, and in a twinkling  
he took another big fish. He seemed to capture them without  
much persuasion. I confessed my surprise at his success,  
which seemed to rest on the following points: First, the  
quality and make-up of the bait, which he would spend many  
minutes in preparing; second, shooting the line heavily, so  
that it would sink quickly and not be drawn by the current  
away from the place which he wished to fish; third, getting  
as nearly over the spot as possible and keeping so quiet as not  
to alarm the fish; fourth, manipulating the bait so as to at-  
tract attention, and striking so as to hook the fish when he  
bites; fifth, manipulating so as not to entangle the line in the  
roots before or after the fish is on the hook. Beyond these  
there seems to be a quickness of sight in detecting chance  
movements of the fish in the water, as well as an intuitive per-  
ception of the precise spots where they lie. Evidently most  
anglers fail of success because they first let the current carry  
the bait astray, and afterward alarm the fish by their move-  
ments in endeavoring to place the bait right. In a well stocked  
stream like the Jordan, where probably 30,000 fish were taken  
the past season, every suitable place is more likely than not to  
hold an occupant; and if the angler does not secure him, it is  
because he has alarmed him by the awkwardness of his move-  
ments, or else has not put the bait where the fish can see it.

I cannot see how the natural resources of a river like the  
Jordan can compensate for so great and constant a drain upon  
them as has been made within the past four years. If the  
stream shall remain prolific for some time to come, unless it  
be artificially stocked, it will be only because the choked con-  
dition of the upper waters by logs and rubbish affords a sure  
protection against persistent and improvident fishing.

Some few years ago grayling were very abundant in the  
Jordan, and several dozen was a fair day's catch; now they  
are seldom seen. The first one I had upon my hook afforded  
a new sensation indeed. His moods and motions were so ca-  
pricious and so different from those of other game fish I had  
handled that I awaited each new development with the inter-  
est of one who watches for the denouement of a drama, or the  
anxiety of a physician who studies the diagnosis of a disease.  
To me it was the reading of a page in the romance of the New  
World, which I had long desired to open. What Back and  
Mackenzie had studied in the Arctic circle; what more recent  
ichthyologists had supposed existed only in tradition; what  
Parker and Fitzhugh afterward became a discovery, was  
presented to me at last as a living reality. All the glories of  
dark and brilliant coloring which had made *Thymallus signifer*  
famous among the game fish of Europe was now reproduced  
and intensified here in his western kinsman, *Thymallus tri-*

color, the beautiful creature which struggled at the end of my  
line with many a leap and erratic plunge. I took my first  
grayling by no accident. I had laid my plans methodically  
for his capture. When I ascended the Jordan my boatman  
pointed out to me deep holes scooped out in the sand in mid  
stream where these fish are wont to lie, and after long and  
patient examination of many such basins, I saw at last my  
specimen lying motionless, head up stream, glistening like a  
sunbeam on the sand. I could have taken him there and  
then with worms, the boatman said, but after a brief contem-  
plation of the pretty object, I pushed on further, feeling as-  
sured that he would rise to my fly upon return. One other  
fish I saw still further up the stream, and him I marked also.  
Finally, when I was fully prepared with the finest tackle my  
kit afforded, and had bent upon my leader the black and yel-  
low fly which I had been told was killing, I drifted cautiously  
down toward the pool, sitting in the bow, and the boatman  
holding steadily with his setting pole at the stern. With the  
longest and most delicate cast I could conveniently command,  
I crossed the surface of the silent water once, twice and  
thrice, and at the third cast raised him. He shot from the  
bottom like a silver shaft, fastening firmly on the hook, and  
then dove with a vim that bent my rod into a graceful curve.  
Then, quick as a flash, the instant he felt himself checked, he  
leaped clear of the surface, his splendid dorsal stiff with nerve  
and radiant with many hues that seemed reflected in the  
drops that quivered from it. Down he went again, taking  
line as he ran; then up and out into the air once more,  
a foot above the surface of the water, and back to his  
element with an activity that no trout ever showed,  
and startling for its display and continuation. I had  
him in hand for several minutes, but landed him as soon as  
possible for fear of losing him. The instant I placed him in  
the well he became quiet, and scarcely betrayed a sign of fear.  
My second fish I hooked as surely, and the like manoeuvres  
followed, but I was in no haste to land him. I deliberately  
studied his play, and carefully noted every movement. At last  
he was placed beside his comrade in the well, and a beautiful  
pair they appeared, with their mild, gentle eyes and trans-  
lucent dorsals, no longer rigid, but waving gracefully over  
their backs, half erect, like plumes upon a bonnet. Sunlight  
falling upon their brilliant and matchless colors lighted them  
up with a glow which the dolphin might have envied. It  
seemed to be a sin to rob the river of this remnant of its fairy  
denizens. I believe that few remain in the stream. Yet there  
are other rivers where they abound, and abundance makes the  
choicest objects seem common. So, other anglers will take  
them by the hundred, as I have seen them taken, until at last  
the streams will all be depleted and the bereft places will  
know them no more. I agree with Fitzhugh, Norris, Milner  
and Mather, that the play of the grayling is incomparable  
with that of any other fish of its weight and inches.

To recount our many experiences of a pleasant week upon  
the Jordan would fill a lengthy chapter. The fabric I weave  
from the memory thereof I would fain unravel, like Penelope,  
that I might weave it over again, so few are the delightful  
episodes of this present life; but Ulysses must return from his  
wanderings to his vulgar mutton, and so I stop the loom here-  
with. There are deer tracks along the shores of the grassy  
islands in the upper stream which I would like to trace to  
favorite haunts on the hardwood ridge. I could write of the  
coveys of grouse we flushed in the thickets; of the bass and  
pike we caught in Pine Lake; of the jolly trips we made on  
the "Jennie Sutton," and of our cruises in open boat along  
shore. Perhaps a repetition of our enjoyment is in store for  
a future vacation. *Quien sabe?* If not for us we hope it re-  
mains for many of our readers. For the present we bid adieu  
to the sparkling waters of the Jordan, the comfortable home  
at Mrs. Webster's, and taking a hasty pull down stream, join  
the steamer in waiting to take our boat in tow, and return to  
Charlevoix, where we shall again board the Van Raalte, and  
pursue our journey to Torch Lake and its adjacent waters.

HALLOOK.

## GAME PROTECTION.

ABOUT FYKE NETS ON THE JERSEY COAST.—The follow-  
ing correspondence will doubtless be interesting to those  
who are desirous of shaping legislative action toward prevent-  
ing the wasteful destruction of fish on our coasts:

NEW YORK, Oct. 28, 1877.

MR. K. W. KINZRY, Ashley House, Barnegat Inlet, New Jersey:

Dear Sir—Your name has been frequently mentioned this last sum-  
mer in FOREST AND STREAM, and more particularly in a recent number  
of that journal, in connection with a determination to stop the net-fish-  
ing in Barnegat Bay. I have been requested to communicate with you  
on behalf of the Excelsior Fishing Club, located at Huguenot, Staten  
Island, upon the subject, it being believed that those interested in the  
protection of game sea fish for sporting purposes should act intelligently,  
and, so far as may be necessary, in unison, in order that angling with  
rod and reel shall remain a practical and successful sport.

Early last spring fykes, large and small, and pounds running a half  
mile from land, were set two and one-half inch meshes, all along  
the Staten Island shores of Raritan Bay, including Prince's Bay, and we  
were informed that many of them were owned by New Jersey usher-  
men, who had been driven from that State by hostile legislation. Weak-  
fish were captured by these nets long before they would take the hook.  
The fishing season began with us this year about the middle of August,  
when the undersigned, among others, took several large fish in shore  
with a rod, two or three of which contained the roe. So that it would  
seem that weakfish run up in our waters as they grow warm, for the  
purpose of spawning, and that until the spawning season is over they  
will not bite at a hook.

The damage, therefore, which is done by these nets to the fish pro-  
duct cannot be estimated; and when in addition it is remembered that  
of the eggs deposited but a comparatively small number are hatched,  
and that of those hatched many are destroyed by their natural enemies,

it can easily be seen that all these destroying agencies combined will soon depopulate the waters. Should net-fishing be abolished? If it should be abolished how should it be restricted? It is for the purpose of obtaining suggestions and advice as to the best mode of obtaining relief in this respect, and to have the benefit of your "views as to the best method of preserving fishing in New York Bay and its vicinity" that I am desired to correspond with you.

With us the fishing has been each season poorer than it was the season previous, so continuing during the last four years. We would like to know what your experience has been in this regard, and, if it is similar to ours, to what you attribute it. If you can, without trouble, we would like you to inform us what the law of New Jersey is upon the subject of fishing with hook and line or with nets, and such other matters of aggression and of fact as occur to you to mention.

We will gladly give you such information as lies in our power to give, and to extend to you our aid in the protection and fostering of the honorable and ancient pastime of angling; and we hope that out of the community of interest in which all true sportsmen are equal sharers, there will spring some plan which shall conserve the welfare of the many—the anglers, the hotel keepers, the wagon men, the tackle dealers, the railroad and steamboat people, and all connected with them directly and indirectly in their business, and protect them against the depredations of a handful of pot-hunters whose labors benefit only themselves and destroy the fishing without lessening the cost of fish to the consumer. Respectfully,

ALBERT E. COCHRAN.

ASHLEY HOUSE, BARNEGAT INLET, Oct. 31, 1877.

ALBERT E. COCHRAN, Esq., New York City:

Dear Sir—In reply to yours of the 25th inst., it will afford me great pleasure if any suggestions of mine will further the cause in your waters. The article referred to in yours, from the FOREST AND STREAM, under the heading of "No More Nets in Barnegat Bay," gives you an idea of what I am doing. We had a bill passed some three years ago abolishing all fykes and pounds, and (last winter) the setting of gill-nets between sunrise and sunset. The latter did not injure the interests of the gill-netters, except in the extra labor of taking up their nets in day-time, as fish will not gill then, except when the water is thick; yet, it interfered with our fishing, as our channels in all directions would be filled with gill-nets. Binefish coming in our bay from the sea, making nets in all directions, would back out and pass to sea again. As to the others (fykes and pounds), abolishing them drove away all of your New York pot fishermen, and no doubt (as you justly observe), sent some of ours to your waters. Weakfish enter our bay as early as May to spawn, and can only be taken with nets; we seldom hear of one being taken with the hook. Knowing our bay to be full of them in May and June (having seen hundreds taken every spring with gill-nets), all spawning fish, and they being rarely taken with the hook until July, and more frequently in August, is conclusive evidence that they will not take the hook until they have deposited their eggs. That they enter the bays for that purpose is without doubt, and, for every fish taken by net until July, hundreds are destroyed.

Net-fishing of all description should be abolished. If you cannot go that far in your State, and wish to protect the weakfish, stop the use of gill-nets until they bite at the hook; or, better still, make it a heavy penalty to have on the person or in his possession any weakfish before July 15. Our striped bass and perch fishing has become almost extinct, owing to the fact that in winter parties at the head of our bay, in hauling seines under the ice, in catching tons of large fish, destroy wagon-loads of small fish, from two to three inches in length, which they pull out on the ice in hauling their nets, and leave them to perish. Our sheepshead and bluefish have been better since the abolition of the pounds.

The "Sunrise Bill," and that prohibiting setting nets before July 1, were only passed last winter, consequently we cannot yet see the effect on weakfish.

The weakfish taken this summer ran small, and scarce at that; we attribute it to the above causes.

I find that there is nothing like putting our grievances in print. Write up on the subject; send it to the FOREST AND STREAM. Several of my articles were copied from that journal in our local papers with good effect. Give "us Jersey pirates" thunder for passing such laws and sending our pot-fishermen among you.

I fully expect our bill—abolishing all nets of any description—to pass this winter; even owners of nets in the village of Barnegat are in favor of such a bill. They own fykes, also, and in summer make large wages by taking out fishing parties.

By figures and the decrease of their business, their interest has been awakened. We expect some opposition at the head of the bay, but force enough will be sent to Trenton to carry the measure through.

You may command me at any time. That we may succeed, and New York follow suit, is the wish of

J. W. KINSEY.

THE WATERS OF ONONDAGA COUNTY BEING ROBBERED.—The *Syracuse Journal*, Nov. 10, has the following:

For some time past several gentlemen of Syracuse who are true sons of Izaak Walton have been made aware through personal observations and otherwise, of the terrible slaughter of fish in the waters of Onondaga County, and more recently of the destruction of large numbers of lake trout, by means of devices which are illegal. They have also found that men making claims to respectability are engaged in the nefarious business, and that some of the game constables actually participate in the profits. It is known to a certainty that trout are being taken from Skaneateles Lake, and trout said to have been caught in Onondaga Lake are in market. They are so plentiful that the price has fallen from 25 and 30 to 12 cents a pound. It has been said that trout were being taken from Skaneateles Lake by Seth Green's men, by direction of the Fish Commissioners, for propagating purposes. This story is utterly false, as will be seen by the following letter to a gentleman of this city:

ROCHESTER, Nov. 7, 1877.

Yours received. None of my men have taken any fish from any of the inland lakes in this State, neither has any one had permission, either from myself or the Commissioners, to take them for propagating purposes. Whoever is taking them is doing so at their own risk and for their own use. The waters of the Skaneateles and Onondaga Lakes are well stocked, and if men will fish in them they should be made to suffer for it.

SETH GREEN.

When the present protective laws were under consideration by the Legislature last winter, the *Journal* stated very distinctly that they would never accomplish the object desired in the matter of affording protection to fish, for the reason that no provision is made for the encouragement of their enforcement. The detection of fish robbers and discovery of sufficient evidence for their conviction involves the expenditure of money which the laws do not provide, and no true sportsman, or company of sportsmen, care to expend their own funds for such a purpose for the benefit of the sportsmen drones, who will neither pay nor work. It is clear that prompt and efficient action of some kind must be taken, else our waters will soon have been robbed of the last fish.

HUNTING CONTESTS.—"Side hunts," with sundry other institutions of the good old times, are fortunately less frequent than formerly. In many of the longer settled States, the promiscuous slaughter of every kind of game which forms such a prominent feature of these contests, has deservedly met with the disapprobation of more thoughtful sportsmen. Through the West and Southwest, repeated hunts of this character cause no sensible diminution of game, we may predict the time when, even there, a protesting voice will be raised against the custom. Certainly in such a State as Massachusetts, the scarcity of game of all kinds should warn clubs against indulging in such slaughter adverted to in a communication from a Boston correspondent:

BOSTON, Nov. 14, 1877.

EDITOR FOREST AND STREAM:

I enclose an item clipped from to-day's Boston Herald, to wit: Worcester, Mass., Nov. 13.—The members of the Worcester Sportsmen's Club had a hunting contest to-day. Sides were chosen, captained by E. S. Knowles and W. S. Perry. The game shot was principally partridge, quail, woodcock and rabbit. The count for Knowles' side was 1,145 to 970 for Perry's party. The victors will have a game supper at the Bay State House to-morrow evening, the losing side footing the bill.

Can we wonder at the small bags of the true sportsman when an organized battue is of a common occurrence, and everything counts? Sportsmen's club, forsooth! I think the quotation should be changed to "An honest sportsman is the noblest work of God." These "side hunts" have been a curse to New England for more years than I can number, and have become as disreputable as "thrown" horse races, to say nothing of the game killed out of season; and the slaughter of those in season in such quantities at one time as to be of no benefit to any one. The game dealers in our markets about this season, and up to past the holidays, find ready sale for "high" game of all kinds to the above extent, for barrels and barrels are purchased to go into the counts of aides. "All is fair, etc."

WHEELING, W. VA.—In the first week of this month a meeting of the gentlemen of Wheeling, W. Va., was held, the object being to form an association for the protection of game, and a committee was appointed to report a plan by which the fish and game laws of the State could be enforced, and such amendments be secured as would serve the purposes of the present acts.

The *Evening Standard*, of Wheeling, devotes a column to this topic, and we quote its excellent comments on this interesting subject:

The difficulty with the present statutes seems to be that no one is specially interested in, or responsible for, their observance. True, this is the case with a majority of the laws enacted, the only interest in seeing them carried out being the general desire entertained by good citizens to have civil authority respected, and the responsibility of having all properly constituted laws enforced, resting equally upon grand jurors and other officers of State. But as a matter of practice, the fish and game laws of this State are practically nullities. We do not remember any prosecution for their violation; and yet we know that such violations are frequent and flagrant. The reason may be partly found in a belief that prevails among some people that no harm can come of such violations; that the supply of game and fish in this State is inexhaustible, and that pot-hunters and midnight seiners may be permitted to ply their vocation at all seasons, without fear of any serious or lasting injury. That this belief is erroneous, nobody who has given any careful attention to the depletion of many of our fish streams and the gradual destruction of accessible hunting ground through continual and murderous shooting at all seasons, needs to be informed; but there are a large class of people who never give the subject any careful consideration, and are apt to fully realize. \* \* \* We earnestly advise that the sportsmen of other counties of the State follow the example set them by their brethren in this county and organize for the purposes indicated. Such associations have proved of incalculable advantage in other States, and if we are to derive any benefit from the efforts put forth by past legislatures to improve and keep up our own fish and game supply, it must come through similar co-operation on the part of those most interested with the civil authorities.

LAND-LOCKED SALMON.—Dr. John P. Ordway, President of the Massachusetts Fish and Game Protective Association, has caused warrants to be served on John Bacon, M. A. Snell, Henry Snow and Levi Perkins for each having in possession one land-locked salmon. All pleaded guilty and were fined \$10 each without costs, it being their first offence. Our Fish Commissioners have, at a large expense, stocked our own waters with these fish, and the above association proposes to see that all violators of the law are punished. The close time is from the first of October in each year to the following first of April. These fish came from Ellsworth, Me., where the close time is similar to our own, and had, by the large gashes in their sides, been evidently speared on their spawning beds.—*Boston Journal*, Nov. 10.

VIOLATING THE GAME LAWS IN NEW JERSEY.—In October last, Charles Collins was arrested in Camden, having in his possession five rabbits, which it was alleged he held in violation of the game laws of New Jersey, which do not permit the killing of that kind of game until the first of November. Mr. Collins was arraigned before the Mayor, and his hearing was postponed in order to allow him to bring evidence to show, as he alleged, that he had killed them in Maryland, where the game laws did not prohibit shooting them at the time of the killing, Mr. Collins giving security for his appearance. Mayor Ayres gave him a hearing in the case, and, as the defendant did not show lawful possession of the rabbits, he ordered a fine of five dollars for each rabbit, as the law provides, making an aggregate of twenty-five dollars and costs. Mr. Collins thereupon appealed to the Quarter Sessions, giving bonds for the penalty, in case the decision is against him there. Peter Roulette, of Da Costa, Atlantic County, was fined by the West Jersey Protective Society \$15 and costs for shooting quail out of season. The complaint was made some time ago.

—We are informed on very reliable authority that contraventions of the Connecticut game laws are becoming more and more frequent. Quail and woodcock have been shot all this year out of season; and what is worse, the provision dealers seem to invite pot-hunters to commit these outrages on the laws,

CANADA, Nov. 16.—Canadian sportsmen and the authority very generally complain of the wanton and wholesale destruction of deer in the townships of Beauce and Compton, Lower Canada. Pot-hunters from Maine cross over the lines, and shoot without license, and it is quite possible that some precautions are not taken, the deer will be exterminated. There is talk of sending a special force to rout out the depredators.

## OUR WASHINGTON LETTER.

PARTRIDGE SHOOTING IN LOWER MARYLAND—DUCKING ON THE PATUXENT—JACKSNIPES HAUNTS IN THAT LOCALITY—THEY ARE NOT SHOT IN AUTUMN, ETC., ETC.

[FROM OUR OWN CORRESPONDENT.]

WASHINGTON, D. C., Nov. 17, 1877.

The Chesapeake Bay and its estuaries probably afford good sport to those fond of aquatic shooting as can be found anywhere on the Atlantic coast. The wild fowl which frequent these waters, both in variety and numbers, exceed that found in any other section, and from the first of November until late in the spring, there is always good shooting. It is not the abundance of ducks and geese alone which make this locality so attractive to the sportsman. The surrounding country is filled with partridges (*Ortyx virginianus*), tuff grouse (*Umbellus bonasa*), jacksnipe (*Gallinago Wilsoni*), ortolan (*Porzana carolina*), reed bird (*Dolychoronyx oryzivorus*) and other varieties in season too numerous to mention, so that there is no time of the year, except spring and summer when the birds are breeding, that the sportsman cannot have his pleasure here.

In a recent letter I described at length the ortolan and reed bird shooting on the marshes of the Patuxent, near Nottingham, Prince George County, Md., and in this one I hope interest the many readers of FOREST AND STREAM with something about the partridge and duck shooting in that locality which seems to have been an attractive place for sportsmen many years ago. In a recent conversation with a gentleman—now seventy-five years of age—and for the greater part of his life a resident of this section, I spoke of the partridge shooting there being good, and by that I meant it was no matter for a fair shot to bag from twenty to thirty birds a day. This gentleman, who had been an ardent sportsman his younger days, assured me that in that locality for years ago the partridges were so plentiful that he, in company with a friend, killed a two-bushels bag full in two days' shooting. To use his own words, "They were as plentiful as blue birds." Every field there of any extent had a dozen or more coveys in it. Of course they are not so plentiful now, but Mr. Maccubbin, who keeps the very comfortable hotel in the village, informed me a few days ago when I was there, that the fall of 1876 he found fourteen coveys in a single stubble field of about 200 acres. There has been a great increase in the destruction of birds during the past thirty years on account of the larger number of persons engaged in it, some for pleasure and others for profit. Besides, the constant disturbance of them on their feeding grounds scatters them over a greater extent of territory and causes them to forsake their favorite haunts.

The "Bald Eagle" plantation, which fronts immediately on the Patuxent, a short distance below Nottingham, contains over a thousand acres, much of it in stubble fields, affording excellent feeding grounds for the birds. The cover on the farm, which they seek when disturbed by the sportsman, is not at all difficult to penetrate, consisting of briar patches and thickets along branches and ravines, in which a well-bred dog can easily find the birds. Just across the river in Calvert County and in Anne Arundel County, a short distance above and opposite to the village, are numerous stubble fields, affording good breeding grounds for the birds, and frequently attractive places for sportsmen. Mr. Maccubbin is popular with all his neighbors, they accord to him the privilege of shooting on their farms, knowing, as they do, that they are gentlemen who shoot for sport only, and not for market; besides, the farmers there have no fear of the poultry being molested or other depredations being committed, as such an act would receive its merited condemnation not only from Maccubbin, but others in that section as well as visitors, and the offender would not be a welcome guest at that place afterward. The farmer in this section whom I have met are intelligent and courteous, there is none of that selfishness among them which prevents gentlemen from enjoying himself on their fields. Though partridge shooting in this section affords such delightful sport it is fully equalled by the

## DUCK SHOOTING

to be found on the Patuxent, from the mouth of the river to Hill's Landing, a distance of sixty or seventy miles. One of the greatest features of the pleasure here is the enjoyment of both partridge and duck shooting without any great fatiguing consequences. The sportsman stopping at Nottingham can arise about daybreak, walk a couple of hundred yards to the river, where he will find his boat and man to paddle ready, Maccubbin always having experienced boatmen employed to convey his guests to the most desirable shooting grounds, and such places are plentiful all along the river, run of fifteen minutes either up or down stream bring the sportsman to some feeding point for the ducks in one of the numerous creeks winding through the marshes. The "Wauk-a-pins" (a local name applied to an

plant of the water-lily family) furnish a natural blind into which the boat is hauled, and for an hour or more the ducks fly over to and from their favorite haunts in great numbers, within easy shot. By half-past seven o'clock, after having brought down a respectable number of them, the sportsman can return to the hotel, where he will find an excellent breakfast awaiting him, and, with an appetite sharpened by the bracing atmosphere of a frosty morning, he can do full justice to it. After breakfast he can hunt the neighboring fields in which the birds are then feeding, and have his own good time among them until noon, and again repair to the hotel for dinner. In the afternoon he can resume his sport in the field, or seek the ducking points again, as they fly in the evening as well as morning, and have more good birding before sundown.—and here I may mention that Maccubbin is well supplied with decoys for the use of his guests. The big ducking guns are unknown on the Patuxent, and consequently the ducks are not frightened off as in many other localities where such guns are used.

The most desirable season for duck shooting extends from about the 20th of November to the 10th of December, as they are generally plentiful between those dates, though several varieties remain in that river all winter. Mallard (*Aras boschas*), black duck (*Aras obscura*), known there as black mallard, green wing teal (*Querquedula carolinensis*), blue wing teal (*Querquedula discors*), bald patc (*Mareca americana*), and sprig tail (*Dafila acuta*) are the most numerous, and their favorite food is said to be berries or seed of an aquatic plant which grows extensively in the Patuxent, known in that locality as "Tuck-a-hoe," an erroneous name, no doubt, as the Tuck-a-hoe, sometimes called Indian bread, is a bulbous plant, growing beneath the surface of the earth. The berries or seed produced by this plant in the Patuxent are about the size of a pea, and after the heavy frosts they drop from the stem, and the water in every direction is covered with them. It is said that they add to the flavor of the ducks feeding upon them, and the great abundance of such food which they procure soon fattens them, and makes them very palatable. The blue wing teal and bald pates leave the river for a more southern latitude at the approach of cold weather, generally by the middle of December, but the green wing teal, mallard, black duck, and sprig tails remain all the winter, as there are numerous springy places around the creeks and marshes which are never frozen, and in such places they find abundance of food. There is but little wild celery in the immediate vicinity of Nottingham, and consequently no canvas-backs or red heads are found there. Early in the season there are some few; but they soon devour all the celery in that section, and go further down the river near Hunting Creek, about thirty miles below, where they find an abundance of it, and are plentiful there. Jack's Bay, just below this creek, is one of the favorite feeding places for these ducks, and many are killed there in November and December. Geese and swans are also plentiful near the mouth of the river, but they often ascend the stream up to and above Nottingham. These fowl, however, seem to prefer large sheets of water, and on account of the stream being narrow near the village they do not tarry in that vicinity long.

JACKSNIBE

shooting in the spring on the marshes and meadows around Nottingham equals that of any other section of the country. Sometimes if the weather be favorable for them they are found in immense numbers, and afford glorious shooting. In the spring of 1870 they were so plentiful that Mr. Maccubbin, in company with a gentleman from Baltimore stopping with him, killed 481 in five days. Just opposite to the village are many acres of low land, covered with reeds and grass, but over which the tide never rises unless there is a continued northeast storm. About February the vegetation upon these lands being thoroughly dried by the cold weather of winter, is burned, and the heat produced thereby brings the worms to the surface, making first-class feeding-grounds for the snipe; besides the destruction of the vegetation puts the land in favorable condition for hunting over it. Maccubbin, who is a close observer of the habits of all birds, says he has frequently watched the snipe feeding among tussocks left on these grounds after the burning. They insert their bill to its base in the soft earth, and wabble it about a few seconds, as if feeling for the worm, but, suddenly withdrawing, turn their head sideways and peep into the opening. Soon they observe the worm, and quick as lightning make a dive and take him from the hole. At first he was under the impression that the bird kept boring for the worm until one was found, but upon taking a little stick and making a hole in the earth, he observed that a worm soon came into it, and thus he became satisfied that the bird first made the hole with his bill, and then waited the appearance of the worm which he gobbled up.

The snipe shooting there in the fall, when the birds are returning South from their breeding grounds, would be just as good as in spring; were it not for the fact that the marshes which they frequent upon their return are covered with a dense growth of grass and reeds, in many places five and six feet high, and almost impenetrable for either the sportsman or his dogs. The snipe marshes, as above mentioned, are much higher than those upon which Ortolan and Reed birds are found, and are seldom covered by the tide. The vegetation upon them cannot be burnt before the return of the snipe in the fall on account of it being green, but the frosts of winter take all life out of it, and in spring the fire soon destroys the whole of it. There are places in these marshes, however, known as "hog wallows," sometimes covering a space of an acre or two, and if the sportsman can find such places in the

fall he is sure to bag some snipe. The hogs from the surrounding country are allowed to run at large during the summer, and they often select spots on these marshes to wallow, where they beat down the vegetation, and here the snipe are found in fall; but it is absolutely impossible to hunt the marsh at that season as can be done in spring.

R. F. B.

The Rifle.

MASSACHUSETTS—Worcester.—The rifle team of the Sportsmen's Club attempted again to shoot for the badge offered by Mr. Nathan Washburn on the 15th. The wind was bad all day, and upset the target at the end of the fourteenth round at 900 yards. A full score was shot at 800 yards, as follows: C. B. Holden, 72; Capt. Smith, 70; S. Clark, 67; F. Wesson, 63; A. L. Rice, 61; G. J. Rugg, 56. At 900 yards 14 rounds were fired, the score closing as follows: C. B. Holden, 60; A. L. Rice, 58; Capt. Smith, 57; G. J. Rugg, 53; F. Wesson, 51; S. Clark, 45. The match is to be shot over again on Wednesday next. A novel match, and one which will create considerable interest, is also announced for this week. The announcement comes from Portland, Me., that Mr. L. C. Daniels, of that city, and Hon. Wm. F. Coby (Buffalo Bill), will shoot a match here on that day for \$100 a side. The latter has a national reputation as a crack shot, and such a match will doubtless attract quite a concourse of local experts.

CONNECTICUT RIFLE ASSOCIATION.—Willowbrook, Nov. 10.—Semi-monthly target shoot for mid-range badge. High wind, rain and sleet.

William Parker, New Britain, 50; H. P. King, New Britain, 46; Wallace Gun, Bridgeport, 49; Fred Wessel, New Britain, 45; C. O. Case, New Britain, 48; W. H. Binns, Hartford, 44; Dr. H. B. Woodward, Middletown, 47; P. T. Stanley, Hartford, 48.

Nov. 17.—Competition for championship mid-range badge for 1877. The wind very light and slightly changing; 500 yards range:

Table with 4 columns: Name, Score 1, Score 2, Score 3, Score 4. Includes names like H. Woodward, J. R. Hawley, C. O. Case, H. P. King, W. Gun, N. Washburn, S. A. Hubbard, G. W. Yale, W. Parker, P. T. Stanley, D. H. Edwards.

Total 526 out of a possible 550. Best average shooting ever done at this range. The first nine only 13 points below the possible 450. Average of the eleven is 95.63; of first nine, 97.11; of five leading scores, 98. Gen. Hawley's score was shot for practice and not in competition for the badge.

QUINNIAC RANGE.—New Haven Rifle Association, on November 20th, Thanksgiving Day, some three matches will be shot. There are no end of prizes, and a general good time may be expected.

CREEDMOOR, Nov. 14.—Weather was fine, and there was a good attendance. The second competition for the Skirmisher's Badge was in order, for which there were fourteen entries. The match was open to members of the National Rifle Association and to members of the National Guard of any State in uniform. Weapon, the military rifle issued to the regular army or navy, or to the National Guard of any State; distances from 200 to 500 yards; the badge to become the property of the person winning it three times, not necessarily consecutively. Nothing equalizes chances so much as this skirmisher's match. Riflemen of distinguished merit some times make very poor scoring in this particular school of practice. Elevations must be caught exactly at the moment, and a man in rapid motion is oftentimes shakily when he shoots. An improvement in this skirmishing match is quite manifest, and no doubt next season there will be many new men who will try their hand at it. We give the leading scores:

Table with 3 columns: Name, Advance, Retreat, Total. Includes names like James Ross, Capt. C. B. Truslow, G. B. Merchant, A. B. Van Hensen, N. D. Ward, Julius Fred, P. McMorrow, W. M. Farrow, Capt. J. L. Rice, O. H. Eagle, J. B. Holland.

It will be found on examining this table that better shooting was done on the retreat than in the advance. It will be worth while to find out whether this is the result of an accident or has a cause. Following the Skirmisher's Match came the running-deer competition, the prize being a Winchester repeating rifle. We have before described this moving target. It is sufficient to state that the deer is about the size of life, made of iron, and runs head on. It slides on a track and makes about ninety feet in some five seconds. The trouble so far among the competitors has been that in using magazine guns single-loading guns have been handicapped. To remedy this, Col. Wingate has determined to allow but one shot at each run. Four runs are allowed to each competitor at a distance of 100 yards, without restriction as to the entries a shooter may make. The entries were 36. Mr. George Waterman made 10 out of a possible 20. If Mr. Waterman wins again he will claim the prize. Mr. Farrow's score was 9, Mr. C. H. Eagle's score 8. Though we rarely give scores other than those in regular matches, it is worth while to make some record of a very extraordinary line of shots, made by Mr. Thomas Lamb, Jr., on the 14th—at 900 yards the very wonderful feat of scoring thirty bulls'-eyes was made by Mr. Lamb. Inquiry as to the character of the ammunition shows that Mr. Lamb used 103 grains of powder, with a Remington-pointed bullet. This score is among the most wonderful yet made. Of course Mr. Lamb is a leading marksman, having been on the reserve of the American team of 1877. The Seventh Regiment Rifle Club shot for "the rifles" on the same day, Capt. J. L. Price making 30 out of 35 at 200 yards; Mr. Engle was second with 28.

Nov. 17.—Saturday being the last day of the season, the attendance was large. The weather was pleasant, and there was hardly any wind. The first match contested for the Turf, Field and Farm badge, at 2 p. m. There were 32 entries, and the conditions and scores were as follows: Open to all members of the National Association, excepting the winners of the two previous badges of this title; distance, 200 yards; position, standing; two sighting and ten scoring shots

Table with 4 columns: Name, Score 1, Score 2, Score 3, Score 4. Includes names like W. M. Farrow, C. H. Johr, T. Rogers, D. Banks, A. Anderson, H. W. Gordon, R. Grohman, W. C. Reddy, S. S. Leach, C. Dewing, G. L. Morse, W. R. Livermore, Dr. M. M. Malby, G. A. Reed, W. H. Holton, F. L. Eames, L. Cass, J. H. Teague, E. Grilling, G. W. Miller, George Waterman, P. McMorrow, J. W. Minor, C. T. Grant, A. F. Finiels, G. F. Merchant, C. P. Bonnett, W. Renaud, R. F. Lewis, N. D. Ward, James Ross, H. B. Holland, J. T. Fryer, E. W. Price, S. F. Kneeland, C. E. Truslow.

The second competition for the Spirit of the Times badge took place at 3 p. m. There were 32 entries, and the trophy was won for the second time by Mr. C. H. Johr of Brooklyn. The conditions and scores are appended: Open to all comers; distance, 300 yards; position standing; two sighting and ten scoring shots:

Table with 4 columns: Name, Score 1, Score 2, Score 3, Score 4. Includes names like C. H. Johr, J. R. Grohman, F. Sargent, W. H. Lewis, F. H. Holton, N. D. Ward, George Waterman, W. H. Cochran, J. F. Graut, O. Dewing, H. W. Conley, R. Butler, J. H. Teague, E. Grilling, A. M. Miller, James Ross, P. McMorrow, C. P. Bonnett, W. C. Reddy, S. F. Kneeland, S. S. Lerex, G. L. Morse, A. Anderson, J. T. Fryer, G. F. Merchant, J. B. Holland, P. McMorrow, F. L. Eames, G. A. Reed.

The Seventh Regiment Rifle Club shot for a Remington special military rifle, which was won by Capt. J. L. Price for the third time upon the score of 46, and he thereby becomes the owner.

A gold badge was shot for by the Irish-American Club, which was won by Dr. M. M. Malby. The scores were as follows, the highest attainable number being 100 points:

Table with 2 columns: Name, Score. Includes names like Dr. M. M. Malby, Capt. J. Kerr, Licut P. Farrelly.

Capt. Kneeland, in practice, made the score of 43 out of a possible 45 at 500 yards distance, with a Sharps new model.

Syracuse, Nov. 14.—The last shoot of the Amateur Rifle Club was for a prize presented by Maj. Henry Fulton of the American team. The winner was Dr. C. E. Rider. He winning in each of the three matches. The following is the score:

Table with 3 columns: Name, 200 yards, 300 yards. Includes names like W. S. Smith, E. Angvine, C. Buckley, C. E. Rider, S. A. Serviss.

MORSEMER RANG, Nov. 16.—The seventh competition for the Hodgman trophy resulted in the finest score ever made at the 500-yard range. Mr. Dusenberry having made 116 out of 120, and having the unparalleled run of 11 cartons in succession. The scores are as follows:

Table with 2 columns: Name, Creedmoor count. Includes names like Dusenberry, Farrow, Ward, Fisher, Langram.

Mr. Dusenberry used a Sharps' rifle.

EDITOR Forest and Stream.—I read, in your paper of Nov. 15, of a wonderful score made by a lady in New Orleans, with a Remington rifle at 500 yards, at a rest, as follows: 88 out of 90, carton count. The score made by Mr. Charles Dusenberry, Jr., at Moremore, 500 yards, without a rest (that is, any position within the Creedmoor rules), carton target, was for the seventh competition of the "Hodgman" trophy—116 out of 120, carton count, or 103 out of 100, Creedmoor count.

At the last meeting of the Cincinnati Amateur Rifle Club the following gentlemen were elected: Geo. T. Wachtmann, President, W. E. Limberg, Secretary. They will have a shoot on Thanksgiving Day at their fine range at Grossebeck, Ohio.

ZETTLER'S GALLERY, Nov. 15.—The first competition for a gold medal, presented by Sergl. M. B. Engel to Co. G, Seventy-first Regiment, N. G. S. N. Y., was shot for at Zettler's Rifle Gallery, 207 Bowery. The rules were the same as those governing the military matches at Creedmoor; 10 shots off-hand, with the following score; possible 50:

Table with 2 columns: Name, Score. Includes names like Sergt. Alex. Steele, Private G. Demmer, Private G. T. Adonis, Drummer A. W. Cochran.

Next shoot will take place Nov. 22.

CONLIS GALLERY.—A match of rapidity and accuracy was held on the 19th at Mr. Conli's gallery. Rules.—To shoot one minute and a half, loading and firing, best score to win. Dr. Dudley scored 74 in a possible 100, winning the gold badge, Mr. P. Lorillard, Jr., making second score. Dr. Dudley secured the badge, having won it three times.

ZETTLER'S GALLERY.—The following scores were made at Zettler's Gallery on Nov. 13. Possible 50; Creedmoor target reduced.

Table with 2 columns of names and scores. Names include P Kleinsath, A E Moore, C G Zettler, M L Riggs, N B Riggs, B Zettler, J Dutli, F Pennig.

ZETTLER RIFLE CLUB.—Annual election of officers of the Zettler Rifle Club, held Nov. 13, 1877, at 207 Bowery. The following named gentlemen were elected: President, M. L. Riggs; Vice-president, M. B. Engel; Treasurer, G. G. Zettler; Secretary, G. A. Schurman; Captain, B. Zettler. Finance Committee—W. M. Farrow, G. Connor, J. Dutli.

Buffalo—Crossley's Gallery.—The following fine scores were made on the 14th:

Table with 2 columns of names and scores. Names include L P Kirschenger, F Pennig.

The first score won.

FIRST CAROLINA—Columbia, Nov. 16.—The State Fair held here annually brings a very large number of visitors, but this year an extra attraction was offered in the way of a prize drill and prize rifle match, open to the United States; and the whole of our little State, and representatives from Virginia, North Carolina, Georgia, were also present. The prize drills came off yesterday. First prize, \$400, open to any militia company in the United States, was won by the Governor's Guards, of Columbia, S. C. Second prize, \$100, open to any company in the State, was also carried off in splendid style by the same company. Rifle match, open to the State militia, was participated in by several teams from different parts of the States. Range, 200 yards; Creedmoor target; army rifles, six-pound pull, open sight; off-hand; teams of six men, in full uniform of company, to be allowed one sighting shot and five regular shots. The shooting was poor, with a few exceptions, the Charleston team sweeping everything. Below I give the four best scores out of possible 150:

Table with 2 columns of names and scores. Names include German Fusiliers, Sumter Guards, Richmond Hussars, Carolina Rifle Battalion.

The best individual scores were made by Messrs. Williams and Jopp of the German Fusiliers, both making, on first round, 23 out of possible 25. On shooting off the tie Williams made a bull's-eye and Jopp a centre. The Sumter Guard team deserve a great deal of credit, as they were the youngest team on the ground, and have been practicing but a short time. YENOTS.

SAD ACCIDENT TO A MARKER AT WEST ALBANY.—The Troy Times of the 15th gives the following account of a fatal accident at the range in West Albany: "A number of gentlemen, among whom were Drs. Haskins and Lansing, proceeded to West Albany for the purpose of enjoying a half-day's long-range practice. All of the marksmen lay in a recumbent position, the result of each shot being signaled by Clapper. In due time Dr. Lansing's turn arrived. Taking long and careful aim, the physician fired. The party waited several minutes for the 'marker's' signal, but none was made. A glass was then brought to bear upon Clapper, and he was found to have fallen from his upright position. The party hastened in alarm to where he lay, and found him dead. An examination was made by the physicians, and it was ascertained that Dr. Lansing's bullet had passed directly through the poor man's heart, producing, it is supposed, instantaneous death. Clapper's father was a witness to the shooting, and saw his son fall. As to Dr. Lansing's proficiency with the rifle, the Argus says: 'Dr. Lansing was regarded as one of the best marksmen in the city, and his proficiency had almost passed into a proverb, he being called, among his associates, 'Old Reliable.' There was no negligence on the part of any one, and the family of the deceased exonerate Dr. Lansing from blame.'

—Leading riflemen in England are still contributing most interesting letters to the Volunteer Service Gazette, in regard to their defeat in the United States. Mr. Herbert P. Miller, a portion of whose communication we published some time ago, has another excellent letter. We regret our inability to give it in extenso. Mr. Miller begins as follows:

I fear the majority of your correspondents have so far misunderstood me that they imagine I attribute the late American defeat wholly to an inferiority in the British rifles, but, in fact, I merely suggested the probability that they might be defective as compared with the American arms; and, to my mind, nothing has yet transpired to shake that "probability." Major Young states in his last letter that "some of the British team have supplied themselves with American rifles;" that looks as though some of them, at least, thought there might be a superiority in the American weapons. From the first, every impartial mind must have felt that the English team, man for man, was quite equal to anything that Americans could bring against them, and that if they failed it must be due to the rifle, the system, or to both, and this premise has been verified. In spite, however, of all equalization, natural weaknesses will not deny assert themselves. This brings us to the point I have been trying to enforce all along—namely, that if our team again fails it shall be from natural weakness, and not from any defect in rifle or system. It should be remembered that superiority, after all, is but a matter of contrast. It is not enough to show that our Rigby and Metford muzzle-loaders are splendid arms, which they undoubtedly are; but the point is, are they in all respects equal to the American breech-loaders? If Major Young will pay as much attention to a good American breech-loader as he has done to the Metford, and if he then declares the Metford to be best I shall be ready to accept his conclusion; but unless he does this his experience is worth but little as a comparison of rifles. "The competitor who has just made all bull's-eyes with his Snider, experiences a feeling almost of contempt as he passes the small-bore man who has failed to do equally well." Why is this? Because he understands the Snider, but knows nothing about the small-bore, and so he deludes himself that the Snider must be the best. In our love for what we have, is it not possible that we may be deluding ourselves about the quality of the American rifles? At any rate the point is sufficiently important to call for a competitive trial before some such tribunal as suggested in my letter to you to you of October 24. Clearly, the very

first step to be taken in the matter is to be quite sure that our team is armed with the very best rifle that can be got.

In a former issue we assured Mr. Miller that he was in the right direction, and we believe, as perhaps does this gentleman, that it is more a matter of rifles than drill. The conclusion of Mr. Miller's letter is mainly in the extreme:

It appears the American N. R. A. has declined to alter the conditions of the Centennial Trophy contest, so as to exclude any British teams but the one selected by our N. R. A. After all, this is hardly a question for the Americans, but rather one for ourselves. They, no doubt, wish to avoid treading on the dangerous ground of a private quarrel. Although the invitation to shoot in the contest was, apparently, given to the three kingdoms, the promoters left us at liberty to decide whether we should come singly or collectively. Ireland, Scotland, England, have each been beaten individually. If, then, there ever was another occasion for our firmly uniting for a common purpose, surely now is the time. Let us show, like the man and his wife, that if we quarrel among ourselves, we know how to combine to beat a stranger. Some riflemen of the sister kingdom seem to object to the term "English," "British," etc.; then let the next team be sent out under the style and title of the "Combination Team." For my part I do not care a single pin what we are called so long as we win the match.

—The prizes won by the Twentieth Battalion team at Glendrake this fall are on exhibition in the show window of Winter's book store, on John's street, Kingston. They are two groups of bronze representing the personal combat of the Duke of Richmond and Richard III at Bosworth, and the combat of James Fitz James with Roderic Dhu.

For Forest and Stream and Rod and Gun.

THE RIFLE ON RUNNING DEER.

BY T. S. VAN DYKE.

NO. I.

In nearly all countries where large game is at all shy, or is much hunted, the greater number of chances to kill will be on the run. Of the many thousands who are increasing the ranks of votaries of the rifle many will doubtless be anxious this coming fall and winter to try their skill in the field. And many of those who figure most successfully at Creedmoor and the galleries will be greatly astonished to find how little their skill at the target, even when combined with extraordinary skill with the shot-gun, will at first avail them in the field on moving game. Shooting on the run with the rifle is an art that every thorough sportsman should by all means learn. In many places it is absolutely indispensable to any sort of success. And even where it is not, the satisfaction of overhauling a bounding deer with a single ball is so intense that good running shooting on game casts even the best of shot-gun shooting far in the shade.

The number of successful running shots, even among good hunters, is surprisingly small. I know several men who have killed over 500 deer, who do not hesitate to admit that they never have even scratched hair on one running. I know many good hunters who never even attempt it. Upon this important subject almost all sporting books are remarkably silent. From hunters who can shoot well on the run little or nothing is to be obtained in the way of information. Some of them cannot analyze the process; while others, especially those of the real old, or "Leatherstocking," type, are prolific only of winks and shrugs, suggestive either of some mysterious gift which nature has bestowed upon them alone, or else of some marvelous secret too precious to be even breathed to common mortality.

That it is a difficult art to acquire cannot be denied. But the difficulty lies principally in the fact that a person almost invariably commits certain blunders which are always fatal to success. And these he will rarely discover, or even suspect, until he has wasted a large number of splendid chances and been dozens of times mortified far past the swearing point by seeing deer skip unharmed away almost within buck shot range. As an illustration of this I might cite the case of Col. Gilder-sleeve on his first performance last spring on the Creedmoor running deer target. Here was one of the most noted riflemen in the country, and, as I understand, a good shot with the shot-gun, making only one hit out of thirteen shots. And this on the easiest kind of shooting, with nothing to excite him, at a known distance and with the motion of the deer and all other conditions uniform. And yet this was nothing whatever to be ashamed of, but only what hundreds of as good off-hand short-range shots as he have done in the field to a far greater extent. I freely admit that I have done even worse.

I purpose, in as brief a manner as possible, to point out these errors and put the lover of the rifle, who wants to try the noblest and most exciting of all hunting, in a position where he will be as well qualified to go ahead as if he had lost a hundred or more deer in working out this information for himself. Of course nothing can entirely supply the place of practice. But I know of no case in which directions will not go far toward doing so. Because if left to yourself you will almost certainly fall into errors which you may easily avoid if forewarned.

Supposing you to be a good off-hand shot on stand-still game, which is an indispensable pre-requisite, let us go to the field and try a deer running. The deer is the hardest of all large game to hit (other things being equal of course), and if you can learn to hit him well everything else of his size will be easy.

For the best work you must have a moderately coarse front sight that is easily caught and held by the eye. Ivory is, except on snow, the best of all for this, though in most lights either brass or silver are very good. Cut off those "horns" or sides from your oak sight, fill it down until you can clearly see the whole body of a dog over either side when the front sight is held from one to six, or eight feet ahead of him at a hundred yards. File it with a forward slope to the top edge to prevent the reflection of the sun, and blacken or rust it with iodine, or acid. The advantage of this I will mention hereafter, though it will soon be evident to you.

The first mistake you will be apt to make when a deer jumps (especially if used to wing shooting with the shot-gun) will be to forget your sights, catch a shot-gun aim and blaze away. Therefore bear constantly in mind that you have a rifle and not a shot-gun in your hand, and think of it first thing when he springs. After a while you will have no trouble to recollect it.

There are five principal ways in which running shots will present themselves, and all others are only variations of these. 1. A broadside. 2. A cutter, or lope broadside. 3. The same, straightaway. 4. The same, "quartering," or at an acute angle to the line of fire. 5. Broadside, straightaway or quartering, with high springs more or less irregular both in height and length.

The first of these is the easiest; but still you must do no careless work, for it is wondrously easy to miss even this shot. Let us suppose a deer on a trot at right angles to the line of fire and distant about 75 yards. A deer seldom takes this gait and rarely holds it for more than a few yards, but it will be the best to begin on. Now be careful, don't be in a hurry, recollect there is plenty of time, and that haste will be almost certain to make you miss him. First throw your rifle ahead of him tolerably low, and catch as full, clear and distinct a view of both

your sights as you would in a target prize match, and be sure you don't lose it. Make the sights the first thing in order of importance; next get your eye on the deer. Of course this will, or should, be practically all one act. I only mean to make the deer second to the sights in order of prominence. Now, either bring your rifle up to him, or let him come to it until it is about one and a half or two feet ahead of his breast and a little below the line of the centre of his body. Be very cautious about getting it too high. Now pull.

He jumps, runs a few paces, plunges and falls shot just back of the shoulder, nearly three feet from where you held. You see, if you had held on his middle you would have missed him.

Let us now try one on the lope. This is the next easiest and is, I presume, the movement of the Creedmoor running deer. [The Creedmoor deer glides along on tramways.—Ed.] If not it should be, to be of much value as practice. Now catch your sights as before; but instead of fring as soon as you get the proper distance, follow him for several jumps until you get the length and height of his jump. Try to fire just as he is at the highest point of his bound, and hold about where you think he will be when he comes down, regulating the distance ahead by his speed which is now greater than when trotting. If he runs low you may disregard the up and down motion, and shoot as you did before, with no allowance for anything but his forward motion. But if he runs high you must not disregard it unless he is going to be out of sight in a jump or two, or is running very fast, in which case you must of course risk the other method. There are two ways in which you will be very apt to miss this shot. 1. By shooting too far, or not far enough ahead. 2. By shooting too high. Unless very cautious you will shoot at the elevation at which he is when in the air, which will bring your ball just a few inches above his back as he strikes the ground.

Let us next try one quartering. This is on the same principle as the last. But with this difference—that even after you have learned to hit broadside shots you will be unconsciously deceived into overlooking, or forgetting the absolute importance of shooting ahead of the spot you wish to strike. Even if aiming at an angle of only twenty degrees to the line of fire, and only fifty yards off, it will always be prudent to see a few inches of daylight in front of his breast. If you are not careful you will find yourself involuntarily holding on his rump, or middle; and just so sure as you do just so sure you will miss or only scratch him.

The next one is a straightaway lope. Here there is no forward motion to allow for. You catch a full, clear sight on his stern and pull. You see the dirt fly from a little clear beyond, just in line with him, but just over him.

"Strange!" you exclaim. "I had a splendid sight on him." Not strange at all. You only made the most natural blunder in the world. You shot at the highest place where he was and hit it very nicely. But he wasn't there. He had just left it and your ball was a instant too late to catch him. It was all right to shoot when he was in the air, but you should have held from twelve to eighteen inches lower.

Thus far our deer have been loping with a very regular bound. But deer do not always run so. Where the ground is rough, rocky, brushy, or covered with logs or fallen trees a deer's gait is generally very different. He now goes with quick, high springs, very irregular both in height and length according to the nature of the ground. After what you have seen you will readily understand and that this is the most difficult of all. And you will understand it still better after you have shot at a few of them. In the other cases the rise and fall is not always so great as to make its calculation indispensable. But now, just so surely as you hold where he is, just so surely will your ball strike where he is not. You need not now be at all ashamed of a miss, for anything like certainty is even much less attainable than it was before.

The only way to reach a deer going this way is to keep perfectly cool, take plenty of time, remember that haste will be utterly useless, and follow him patiently for a few jumps with the rifle not quite so far ahead as in the regular lope. Shoot when he is in the air, from one and a half to three feet below his highest point. Sometimes you will have to shoot still lower, as when he is running through a windfall crosswise and clearing a big log at every jump or two. In such a case, unless you have a good side view of him, you had better hold your fire until he gets on more open ground. And you had better always do so unless the windfall is a large one, or you have a repeating or double rifle. For the chances are against you on every shot. Still, with care, some wonderful shots may be made in this way which will make you stand a moment in delighted amazement and break into an ejaculatory soliloquy that would be amusing to your friends if they could hear it. One deer stopped in this way will give you more satisfaction than a dozen killed standing, and you will chuckle over it for the next three weeks. In my next article I will give some general hints that will go far toward helping you in your practice.

Minor's Ranch, San Diego Co., Cal.

A DUCK-STEALING BAGGAGE-MASTER

NEW YORK, Nov. 12, 1877.

EDITOR FOREST AND STREAM: I would like to warn the sporting fraternity against the thieving proclivities of the employes of the Southern R. R. of Long Island. A friend and myself had the good fortune to shoot a few ducks at South Oyster Bay, and the misfortune to deliver the same to the baggage-master of the Sunday afternoon train to New York (yesterday). This worthy suggested that we "ought to give him some of them for minding them," but as we had no little trouble and hardship, and some expense in procuring them, and had a good use for them, we suggested that any regular charges we were willing to pay, but were under the impression that the R.R. company were the parties snoped to pay him for attending to his business. His conduct aroused our suspicions, and four separate times we went forward to the baggage-car and looked at the birds to see if they were all right. On reaching home and setting to work to divide up our game preparatory to sending it to different friends, we discovered that four of our best birds (two black ducks, one broad-bill and a red-head) had been deliberately cut off from the bunch. The thief had evidently tried to untie them, but could not succeed, and had cut off the bodies, leaving necks and heads for us to count and swear over. As we believe the committee investigating the affairs of this road find that it has been unable to protect itself from the peculations of its employes, it is perhaps asking too much that they should protect the travelers on the road. But the writer would give \$25 for the satisfaction of punishing that baggage man whom he believes stole the birds, or if he did not, allowed some one else to do it. As I have previously lost game on this road, I think it is well to call the attention of sportsmen to the matter, that they may keep a look out, as I shall do in future.

Would have sought redress from the company, but the questionable arises, "Who is the company?" Perhaps the Times, which has followed the matter, might inform us. I inclose my card and that of my friend. G. C. B.

—Messrs. Tiffany & Co. have notified the General Inspector of Rifle Practice that the "marksman's badges," to which the bars for the present year are to be attached, must be delivered to them during the present week, in order to insure their completion before the rush of work entailed by the holidays begins.



**ROSE WATER AND ATTAR OF ROSES.**—As is generally known, this district is the most fertile in the Turkish empire for the production of attar of roses; and, as little is known of this curious and interesting process, a few words as to how the roses are grown and how the essence is extracted may be permitted. This district, which is called the district of Kezanlik, produces annually more of the essence than all the other rose-growing districts of Turkey put together. The whole quantity produced in Turkey may be roughly estimated at 3,600 pounds annually, of which 1,800 pounds are manufactured in this district and the rest in seven other districts, all alike in the Sandjak or province of Philippolis. The soil best suited for the cultivation of roses is what we find in such large tracts of land in this neighborhood, namely, sandy slopes with a southern exposure, and the method of planting and rearing is as follows: In spring and autumn parallel trenches a few inches deep are dug in the soil selected about 1½ yards apart, and in these trenches are placed short branches taken from an old rose tree. These must not be cut off the old plant, but torn off, so as to carry with them part of the peel or bark of the plant. They are placed in the trench so as to form a continuous line, and the earth, with some manure, is then filled in. In about six months small plants begin to show above the ground, but bear no roses until the second year, and these are of no great value. The third year's crop is fit for the production of the essence, and by the fifth year the plant is at its best. It remains in this condition for several years, but after about fourteen or fifteen years the quality of the roses has so deteriorated and the bushes grown so thick that replanting is necessary. By this time they may be six feet high. The rose tree is a very delicate plant, and requires constant care. As the crop of flowers advances toward harvest time the cultivator has to make a kind of rough estimate of the quantity of buds and flowers that he must gather each day. This is limited by the amount of labor he can command to pick the young full-blown roses before sunrise and by the quantity he can distil at one time. For the sun soon dispels the scent, and the flowers must go immediately into the still. Thus supposing he sees or judges that it will take ten days for the whole crop to come to perfection, he must in the first morning gather a tenth of his crop, and proceed to distil that quantity, and this will explain why a sudden burst of heat forcing on the whole crop is so disadvantageous. It also appears that any great heat during the time of distillation causes the quality of the essence to deteriorate. The distillation is carried on in the most primitive manner, and yet seems to answer the purpose as effectually as would any more complicated or scientific method. The still itself in form resembles a large copper bottle, with a neck consisting of a smaller chamber. The height of this still is about five feet. From the top a pipe passes into a receiver, through which the distilled water passes. Into this still is placed a quantity of roses with ten times as much water, and the distillation is carried on until the amount of liquid in the receiver equals in weight the amount of roses in the still. The roses are then thrown out and a fresh quantity put in, and the process is repeated until all the water is evaporated, when a fresh operation begins. The liquid thus obtained is rose water, which is again subjected to distillation, when the real essence is produced in the form of a pale yellow oil. The quantity of essence that a given number of roses will produce is very uncertain, but a rough average may be taken that to produce one pound weight of the essence it requires the astonishing weight of 28 cwt. From this may be gathered some idea of the enormous amount of land occupied and labor bestowed on the cultivation of roses in this district alone, which annually produces upward of 1,800 pounds to 2,000 pounds weight of the essence. There are no large farmers of roses. The rural population have the manufacture entirely in their own hands, and every man that has a small field of roses has also his distilling apparatus. Very often among the poor Bulgarians this constitutes their entire capital, with a small field of maize, a few plum trees and a few London Times.

How IT LOOKS TO A LUNATIC.—The following dialogue is reported as having taken place between a gamekeeper and a patient looking through the iron gate of a French lunatic asylum. Patient—That's a fine horse. What's it worth? Keeper—Five hundred dollars. Patient—And what did that gun cost? Keeper—One hundred dollars. Patient—And those dogs? Keeper—Eighty dollars, I believe. Patient—What have you got in that game bag? Keeper—A woodcock. Patient—Well, now, you had better hurry on, for if our governor catches a man who has spent \$650 to get a woodcock worth 30 cents he'll have him under lock and key in no time, I tell you.

Tiffany & Co., Silversmiths, Jewelers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their Timing Watches are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. TIFFANY & CO. are also the agents in America for Messrs. PATEK, PHILIPPE & Co., of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones, General Jewelry, Artistic Bronzes and Pottery, Electro-Plate and Sterling Silverware for Household use, fine Stationery and Bric-a-brac, is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase. Union Square, New York.

**Piper Heidsieck**  
AND  
**PIPER "SEC."**



**For Sale Everywhere.**

JOHN OSBORN, SON & CO.,  
45 Beaver street, New York,  
and  
44 St. Sacramento street, Montreal,  
GENERAL AGENTS.

**STONE'S**  
**Sporting Emporium,**  
No. 213 South Fifth Street, Philadelphia.  
PARTICULAR ATTENTION PAID TO  
LOADING SHELLS.

Taxidermy in all its branches. Repairing of Guns, Rifle, Pistols and Fishing Tackle a specialty.  
**Sportsman's Gazetteer**  
AND  
**GENERAL GUIDE,**  
By CHARLES HALLOCK,  
Editor "Forest and Stream and Rod and Gun."  
896 pp., Price \$3.  
Tinted Paper, \$4; half-bound mo., \$5.

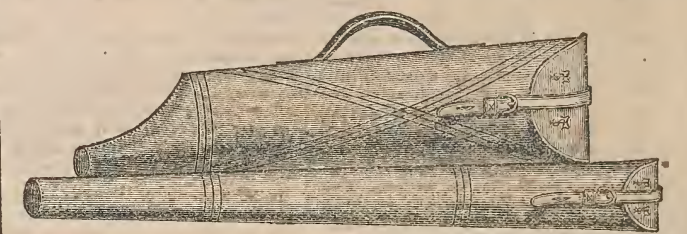
A complete Dictionary for Sportsmen. Everybody wants it; that has a dog, gun or fishing rod.  
A complete description of all kinds of Game, Fish, etc. Field sports, Woodcraft, Angling, Fly Fishing, Dogs, Dog Breeding, Diseases and Treatment, Boating and Boat-building.  
Several thousand localities where game and fish are to be found.  
Nothing of the kind ever before published worth ten times the price.  
PUBLISHED BY  
**FOREST & STREAM PUBLISHING CO.**  
111 Fulton street, New York.

**NEW YORK SHOOTING COAT.**

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.  
**MADE OF BROWN VELVETEEN.**  
Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$6.50. Also the best brown corduroy pants at \$10 per pair. I make only the one grade, as the cheapest goods do not turn briars and will not give satisfaction.  
Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsman who have seen it say it is "The Best Yet." Coat, \$5.50. For full suit, \$14.00. I also make the Sleeveless Coat; Vest with sleeves if desired. Rules for measurement and samples sent upon application.  
**F. L. SHELDON, Rahway, N. J.**  
For Sale by Dealers in GUNS and SPORTSMEN'S SUPPLIES.

**THE UNITED STATES CARTRIDGE COMPANY,**  
LOWELL, MASS.

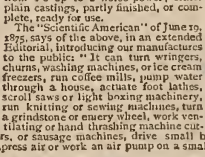
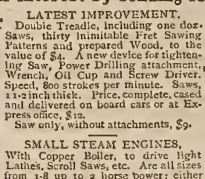
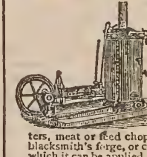
Manufacturers of the  
**CENTRAL FIRE, SOLID HEAD,**  
**BRASS SHELL, RE-LOADING CARTRIDGE,**  
Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.  
Special attention paid to orders for TARGET PRACTICE CARTRIDGES.  
Send for Illustrated Catalogue.  
**WALLACE & SONS, Agents, N. Y. City.**



Handiest gun case manufactured; made of heavy bridle leather, and in best style; can be carried same as a satchel everywhere; price \$6. Sent by EXPRESS C. O. D. Also made of heavy waterproof canvas, lined with flannel; price \$22; sent by mail, postage prepaid. Address THOMSON & SON, 301 Broadway, New York. P. O. Box 1016.

**ESTABLISHED IN 1837.**

Consult your interest by sending for our revised and reduced prices.  
**Excelsior** Latest Improvement. Double Treadle, including one doz. Saws, thirty inimitable Fret Sawing Patterns and prepared Wood, to the value of \$4. A new device for tightening Saw, Power Drilling attachment, Wrench, Oil Cup and Screw Driver. Speed, 800 strokes per minute. Saws, 12-inch blade. Price complete, cases and delivered on board cars or at Express office, \$12.  
Saw only, without attachments, \$9.  
**SMALL STEAM ENGINES.** With Copper Boiler, to drive Light Lathes, Scroll Saws, etc. Are all sizes to the public. "I can turn wrenches, churns, washing machines, or ice cream freezers, run coffee mills, pump water through a house, actuate foot lathes, scroll saws or light broom machinery, run knitting or sewing machines, turn a grindstone or emery wheel, work ventilating or hand thrashing machine cutters, meat or feed choppers, or sausage machines, drive small blowers for pneumatic dispatch tubes in a building, or for a blacksmith's forge, or compress air or work an air pump on a small scale in a laboratory. These are a few of the purposes to which it can be applied."  
Also Engines and Boilers capable of propelling 15 to 20 horses. The boats have keel, stem, with rudder and tiller, row locks and oars.  
Those wishing a pleasure boat will find



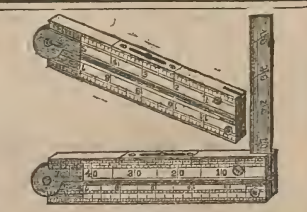
**NEARLY ONE THOUSAND IN USE.** Buffalo Pony Planer. Will earn itself, and pay expense of running in 7 days. Price from \$50 and upwards, each.  
**LIGHT MACHINES FOR PONY OR HORSE POWER.** The greatest success of these machines is unprecendented, and it may be confidently affirmed that no article has ever more clearly proved its superiority for the quantity and quality of its work than this. It is made in several sizes, and can be fitted up for bullock, mule, steam or wind power, in addition to those above mentioned.  
Patented March 30, 1875.  
Best of its kind in use. Price, complete, \$35. Also Planing Machine Knives, which are recommended as superior and extra in quality.

line boats from 18 to 28 feet long, 4 x 2 to 5 x 2 feet beam, with draft of water stern and rudder post of oak, pine planking, copper fastened throughout, fitted out around the boat, lockers and coal bunkers, and have two coats of paint. These the safest and fastest, as they can be made to attain a speed of from 6 to 16 miles per hour.  
They are adapted to a great variety of uses, such as Excursion, Shooting, Fishing or Picnic parties, for travelers, voyagers, botanists and tourists, and especially owing to their light draft of water for exploring expeditions and surveying parties. The Engine and Boiler can be easily detached from the boat, and is then available for Agricultural, Mechanical, Commercial or Domestic requirements or for the use of Amateurs, when power is needed for running light machinery.  
Price of 20 foot boat, complete, \$42.00  
Price of Engine and Boiler, without boat, including driving pulley, \$75.00  
Illustrated Catalogue containing one Hundred Scroll Work Designs mailed to any address free on receipt of Stamp.  
**GEORGE PARR, BUFFALO, N. Y., U. S. A.**

**Gale's Patent Tents,**

Adapted to all purposes where Lawn, Beach, Hunters' and Camp Tents are used; are eight feet high, seven feet square at bottom, will lodge four persons; can be set up or taken down and packed in five minutes, making a bundle four feet long, of twenty-five pounds weight. The pole in two parts, is joined together by a brass tube. They are wonderfully light, and yet very strong, and are the handiest and cheapest tents extant. Samples of goods and price list sent free, and the receipt on receipt of price, or C. O. D. Prices from \$10 to \$15.  
**GALE & CO.,**  
Boston, Mass.

**Williamson & Co.,**  
569 BROADWAY, N. Y. (formerly 317 Broadway)  
Kentucky State Single Number Lottery.  
**DRAWING NOVEMBER 30.**  
5,880 prizes, \$300,000. Capital prize, \$50,000.  
Tickets \$10. Halves, \$5. Quarters, \$2.50.  
Eighty, \$1.25.  
MANAGERS' EASTERN AGENCY—Williamson & Co., 569 Broadway, corner Prince St., New York.



**THIS IS A**  
**Foot Rule, Level, Square, Plumb and Inclinometer.**  
It may be used for leveling stands for rest shooting, and gives a once the degree of elevation and pitch to the foot. As a specimen of workmanship, it is faultless, and is strong and durable. So great is our confidence in its merits that we hereby agree to refund its cost in every case where perfect satisfaction is not given. Sent by mail on receipt of \$2.50.  
**STEPHENS & CO.,** River ton, Conn. Nov 11/90

**CAMP LOUNGE CO., TROY, N. Y.**  
Valise Lounges, \$5 to \$8. Trade discount. Free Circulars.  
Fifteen and Mooring Bar Camps with lounge Lounges and Cot. Valise Cot, Price \$10. Spreads 6 ft. x 9 ft. Jointed Tent Poles: 8 ft. poles, \$3 per set; 9 ft. poles, \$4 per set. Branch Outlets—Cortlandt St., N. Y. City; 15 Faneuil Hall Square, Boston; 16 Calle Tejadillo, Havana; 216 Sansone St., San Francisco. Agents wanted. '77 20

# NICHOLS & LEFEBVER, MAKERS OF FINE GUNS

## CATALOGUES SENT ON APPLICATION.

## SYRACUSE, N. Y.

### SPORTSMEN'S EMPORIUM.

**COMPLETE OUTFITS FOR CAMP AND FIELD.**

Borden's Jack, Dash and Fishing Lamp; Duncklee's Camp Stoves, Tents, Portable Beds and Bunks, Rubber Goods, and everything in the line of camping goods. FLORIDA AND WESTERN OUTFITS. Artificial Flies and Fishing Baits made to suit Florida fishing. Fine Fishing and Shooting Tackle of all kinds. Hunting Belts, Goods & Thompson's Accessories. Robertson's Hand-made Rods; the best ever offered. Fly rods from \$5 to \$25. Fox gloves—the only American gun barrel with stand comparison with imported guns. Shells loaded to order with care. The Sportsman's Notebook and Diary, with blank scores of all kinds, useful recipes, hints, e. c., sent post paid on receipt of 50 cents. Send 10 cents for illustrated catalogue, with rules for trap shooting, hints of camping, shooting and fishing. Sole Agents for the celebrated Swedish Waterproof Leather Jackets. Will not rot or wet, and are available just the thing for duck shoots or any one that is exposed to the cold. Price \$16.50. Agents for the American Club Skates. Send for price list to W. HOLBERTON, 102 Nassau Street, N. Y. P. O. Box 5, 109.

#### Hotels and Resorts for Sportsmen.

**Metropolitan Hotel,** WASHINGTON, D. C.  
**Carrollton Hotel,** BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.

**THE METROPOLITAN** is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and re-furnished throughout. The cuisine is perfect; the service regular, and charges moderate.

R. B. COLEMAN & CO.

#### For Sale.

**SECOND-HAND.**—A very fine Tolley breech loader, with two sets of barrels fitted to game stock; one pair 10 bore Damascus and very close shooting, other pair laminated steel and cylinder bore; weight, 9 lbs. and 9 1/2 lbs. This gun was made to order for the owner, and is very superior in every respect. Can be examined at gun store of HENRY C. SQUIRES, 1 Cortlandt street, N. Y. Nov 17

**BLOOMING-GROVE PARK ASSOCIATION.** One share in above association for sale at a very low price. The best Game Preserves in America. Trout, Black Bass and Pickerel fishing. Address SPORT, this office. Feb 22

**CITY AND COUNTRY PROPERTY** bought, sold and exchanged. C. S. PECK, 8 West Twenty-fifth street, New York. Sept 17

**FOR SALE.**—One pair English Fallow Deer three months old. Address H. P. INGALLS, Superintendent Zoological Garden, Cincinnati, O. Nov 24

**FOR SALE.**—A Gentleman's Shooting Box complete (located within 25 miles of New York), comprising 42 acres of land, a new house fully furnished, barn, wagon house, farmer's house, ice-house, dog kennels, henney, etc. Situated on the shore of a beautiful lake, abounding in black bass, perch, etc. Ruffed grouse, woodcock and deer immediately around the grounds. Horse, cow, hunting wagon, buckboard, and harness (double and single), farm tools, boats, etc. Also two fine setter dogs and two first-class cocker spaniels; thoroughly broken. All for sale for \$5,000 cash, as the owner is going West permanently. Address COLONEL FOREST AND STREAM office, New York. Nov 14

**FOR SALE.**—A fine lot of guns, targets, etc., which have been sight y used at watching places during the past season, will be sold cheap for cash. J. S. CONLIN, 1, 22 Broadway, N. Y. Nov 15

**FOR SALE AT \$115.**—A very fine field gun, English make, 12 bore, 8 lbs., laminated steel barrels, pistol grip, patent fore-end and top sight, and a very hard close shooting gun. Trial given. Address TOP SNAP, this office. Nov 15

**FOR SALE, CHEAP.**—One No. 2 Sharps' Creedmoor Rifle, as good as new. Address Box 120 Taunton, Mass. Nov 15

#### Sportsmen's Goods.

#### HAMMOCKS

FOR LAWNS AND EXCURSIONS



Tents, Camp Stools, Camp Kettles, Rubber Blankets, Mosquito Nets, Lawn Seesaws, etc. Send for Illustrated Circular. G. WEBSTER PECK, Manufacturer's Agents, 110 Chalmers st., N. Y.



#### IMPROVED Gaiter Pantaloon.

And first-class Sporting Outfits. Send for circular.

GEO. C. HENNING, WASHINGTON CITY.

**KNAPP & VAN NOSTRAND,** POULTRY AND GAME, Nos. 230 and 240 WASHINGTON MARKET, N. Y.

### The Kennel. HORTICULTURAL HALL.

### Philadelphia Grand National DOG SHOW

Commences on Monday, November 26, 1877, and continues five days. Open every day from 10 A. M. to 10 P. M.

Over \$1,200 in SOLID SILVERWARE as Prizes, besides VERY VALUABLE SPECIAL PRIZES have been offered.

Entries can be made up to Saturday, November 24, until 5 P. M. Parties at a distance can enter by telegraph or mail. Entry fee, \$1.

THATCHER GODDARD, Manager, Nov 22 11 Horticultural Hall, Broad st.

**EDINA KENNEL.** JESSE SHERWOOD, PROPRIETOR, Edina, Knox County, Mo., breeder and importer of Sporting Dogs. Pointers, setters, spaniels, fox and hedge hounds, "Sancho," Imp. Pointer, stud dog; fee, \$25. See English K. C. S. B., No. 1,045. He is a grandson of the celebrated "Hamlet," No. 836. This dog "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874, three here.

**FOR SALE,** when eight weeks old, six puppies out of my blue belton setter Mell, by Bob Boy. They are black and white. Two of them are black, white and tan, and are almost perfect images of their sire. For particulars, address L. F. WHITMAN, 5 City Hall, Detroit, Mich. Je 28 11

#### DOGS.

DOCTOR HENRY GARDNER, No. 146 West Thirtieth street, New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ag 24

**EXTRA** fine red Irish setter pups for sale—four dogs and two bit. bred, out of my bitch Flirt, by Walden's Scout, bred by imported Blunker, out of Dr. Goodsmith's Carrie. Flirt is dark red and a superior field performer. For full particulars and price, address C. L. PALMER, Port Henry, N. Y. Nov 3

**FOR SALE.**—One pair valuable setters for sale. For particulars, address, R. L. GRAVES, Sunderland, Vt. Nov 3

#### Wanted.

**WANTED.**—Everybody to subscribe to the Southern Poultry Journal, a handsomely illustrated monthly magazine, devoted to Poultry, Poultry Stock and general sporting matters. Only 32 per year, post-paid. Sample copies 20 cents. Correspondence solicited for the various departments of the Journal, on all subjects of interest relating thereto. Secretaries of gun and sporting clubs are requested to favor us with notes of their movements, etc. Address E. B. HARTWELL, Publisher, P. O. Box 69, Louisville, Ky.

**WANTED.**—Live moose and deer to stock a park. Address, station terms and full particulars S. Box 77, Station D, New York. Nov 14

**TO RENT,** at Enterprise, Florida, a new house containing nine rooms, with water front on Lake Monroe. Situated near the Brock House. Beautiful and healthy location. Address Box 208, Stamford, Conn. Nov 15

**STEAM YACHT WANTED.**—From 16 to 20 feet long in good repair. Send description, with lowest cash price, to R. ROBOTHAM, 59 Almond street, Syracuse, N. Y. Nov 21

#### Hotels and Resorts for Sportsmen.

**Duck Shooting at Van Slycks,** CURRITUCK CO., N. C.

Sportsmen furnished with Board, Skiffs and Stool Ducks, God, Partridge and Snipe Shooting. Steamer Cragnet leaves Norfolk and runs direct to the house Mondays and Thursdays at 6:30 A. M. Nov 22 41

**HALSEY HOUSE,** ATLANTICVILLE, LONG ISLAND,

is nearer New York City than any house bordering on Shinnecock Bay. Is as near, and has as good shooting grounds, and as experienced attendants (with live geese and other decoys, batteries, etc., always on hand); nearer the station; the largest and the best kept house in the bay. L. I. RR. to Atlanticville Station. Fare, \$2. Stage meets all trains. W. F. HALSEY, Owner and Proprietor. Atlanticville, L. I., Oct. 20, 1877. Oct 25

#### Wild Fowl Shooting.

SPRINGFIELD HOUSE OR SPORTSMEN'S RETREAT, SHINNECOCK BAY, L. I.

By a practical gunner and an old bayman. Has always on hand the best of boats, batteries, etc., with the largest rig of trained wild-geese decoys on the coast. Special attention given by himself to his guests, and satisfaction guaranteed. Address WM. N. LANE, Good Ground, L. I. Nov 9 11

#### The Kennel.

**OR YOUNG COCKER SPANIEL STOCK FROM** the choicest breeds. Inquire of M. P. MCKOON, Franklin, Del. Co., N. Y.

**FOR SALE.**—Genuine Eng Pups, three months old. Address H. P. INSALLS, Superintendent of the Crystal Garden, Cincinnati, O. Nov 8 41

**IRISH** and native setters, dogs and bitches of all ages, broken and unbroken, address E. J. HOBBS, Weathersfield, Conn. Oct 25

**FULL-BLOODED.**—Two Irish setter bitches, four months. Sire of pups, Don, imported from J. Cropper, of Limerick, Ireland, by C. H. Turner, N. A., Kennel Club, St. Louis, Mo., dam, Countess, Hoptman's Dash. One Gordon bitch, eighteen months old; mated this fall; staunch on quail and fast, with good nose; will make a good one. A Gordon bitch eight months old. Bull pedigree with pups. H. B. VONDERSMITH, Lancaster, Pa. Nov 22 11

#### BALLARD'S FLEA KILLER!

FOR THE DESTRUCTION OF FLEAS in Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.

**PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.**

Price 50 Cents per Package. Will be sent postage paid on receipt of price.

LAZELL, MARSH & GARDINER, 10 GOLD STREET, NEW YORK.

#### SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped. F. O. de LUZE, 18 South William Street, N. Y., Sole Agent.

For sale in cases of 112 lbs. Special terms to Dealers.

#### Fleas! Fleas! Worms! Worms!

STEADMAN'S FLEA POWDER FOR DOGS. A Bane to Fleas—A Boon to Dogs.

This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put in a patent box with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.

Price 50 cents by mail, Postpaid.

**MARSTERS' IMPROVED Horn Dog Whistle.**

anno 'be Lost from the Goat. ALWAYS IN THE SAME PLACE WHEN WANTED.

Sample by mail, 50 cents. Trade supplied. F. MARSTERS, 125 NASSAU ST., N. Y., AND 55 COURT STREET, BROOKLYN.

#### MARSTERS' IMPROVED Horn Dog Whistle.

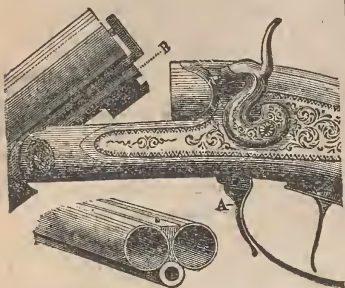
anno 'be Lost from the Goat. ALWAYS IN THE SAME PLACE WHEN WANTED.

Sample by mail, 50 cents. Trade supplied. F. MARSTERS, 125 NASSAU ST., N. Y., AND 55 COURT STREET, BROOKLYN.





Guns, Rifles, Etc.



THREE BARRELED

Breech-Loading Guns.

(TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

PRICES.

- Three barrel, \$75 to \$350. Double barrel shot guns. Demascus barrel, \$50 to \$200. Twist barrel, \$35.

SEND FOR NEW CIRCULAR.

W. H. BAKER & CO., Syracuse, N. Y.

E. THOMAS, JR., GUNS, PISTOLS, SPORTING GOODS, 174 South Clark Street, Chicago, Ill.

A New Wad.

The "Fibre" wad will give a better penetration and pattern than Eley's wadding. It is elastic and plastic, and will hold the load securely in brass shells. Will not take fire or blow to pieces. Price per box of 250, 25 cents for No. 10 and No. 12, 30 cents for No. 8. Sample sent by mail on receipt of price.

LIBERAL DISCOUNT TO THE TRADE.

DELAWARE CARTRIDGE COMPANY WILMINGTON, DEL.

Fishing Tackle.

B. GREENWOOD.

Manufacturer of Aquaria Greenhouse and Aquarium Cement, and dealer in Fish Food, Gold Fish, Water Plants, Fish Globes, and aquaria stock of all descriptions. Canaries, Cages, Rustic Baskets, Bird Houses, Sea Shells, etc., wholesale and retail.

Nos. 114 to 143 COLLEGE PLACE, Near Murray St. New York, N. Y.

H. L. LEONARD.

BANGOR, MAINE.

Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty

Great reduction in prices. Trout Rods, full mounted, \$30, formerly \$50; other rods in proportion. Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof ferrule," and warranted against imperfections in material and workmanship.

Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancelwood. MADE TO ORDER.

I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods. Also manufacturer of Patent Reels for Salmon and Trout fishing. The lightest, strongest, and handsomest Reels ever made.

Full line of FISHING TACKLE always on hand.

Send for circular and price list.

Lessons in Fly Tying.

I will guarantee to teach any gentleman the art of dressing flies in a few lessons. Address JOHN HALLY, 320 Henry Street, New York City.

Flies tied to order from any pattern. Novs 17

Amusements, Etc.

Zoological Garden.

FAIRMOUNT PARK, PHILADELPHIA. Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents.

THE GREAT NEW YORK AQUARIUM, Broadway and 34th Street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 hell-holders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Labin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments.

WHAT PRAIRIE OIL IS BEING USED FOR.

MR. KEWARD PHILP, late Dramatic Editor Brooklyn Eagle, Brooklyn, N. Y., was unable to walk without the aid of crutches, owing to a severe attack of Rheumatism. After the third application of PRAIRIE OIL the crutches were thrown aside, he having no further use for them. Says the Proprietor of Nible's Garden, New York: "PRAIRIE OIL gave me relief from inflammatory rheumatism after first application; and after the third I had no further use for my cane." PRIOR RORKE, Esq., ex-Building Inspector, DeKalb Avenue and Fort Greene Place, Brooklyn, says: "For acute or inflammatory rheumatism it is a wonderful remedy; has been in use in my family for over a year." M. C. EDEY, Esq., the well-known chemist, 319 Court Street, Brooklyn, manufacturer of Edey's Carbolic Troches, etc., says: "I find PRAIRIE OIL to be a most wonderful preparation in cases of rheumatism, having seen it tested in a case of years' standing. The patient obtained relief at once, and was ultimately cured." MR. JOHN H. SNEDEKER, of Telfair & Snediker, oil merchants, 105 John Street, New York, was cured of Pleurisy by the use of PRAIRIE OIL. MR. G. PADDON, tobacco merchant, 992 Fulton Street, Brooklyn, lost the use of his right leg by Sciatica, got relief at once after first application of PRAIRIE OIL. This gentleman had become so depressed by his affliction that he had given up all hopes of recovery. CAPT. JOSEPH LA FIGRA, Merchant Court, near Remsen Street, Brooklyn, was cured of a stiff joint, of years' standing, after a few applications of PRAIRIE OIL. MR. BERTSON, publisher, 16 Beekman Street, New York, says: "I find PRAIRIE OIL to be invaluable in many serious complaints." PRICE FIFTY CENTS AND ONE DOLLAR PER BOTTLE. Ask your Druggist for it. P. O. Box 2997. "THE PRAIRIE OIL Co.," 132 Nassau St., N. Y. Sent prepaid by express on receipt of ten cents additional. SEND FOR CIRCULAR.

DON'T PASS THIS BY.

STODDARD'S CARTRIDGE-LOADING IMPLEMENT, COMBINING ALL OTHER TOOLS AND FOR ALL SHELLS. Length, 4 1/2 inches; weight, 10 ounces, and nickel-plated. Price, \$6. Recommended by FOREST AND STREAM AND ROD AND GUN, Boone, Recapper, Will Wildwood, Ira A. Payne, and others. Liberal discount to the trade. Send postal order to C. J. STODDARD & CO., Lock box 192, Washington, D. C.

IRA A. PAINE'S CHAMPION FILLED GLASS BALL. PATENTED OCTOBER 11.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED. The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the services of that well-known Sportsman, IRA A. PAINE, to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell. We can give the sportsmen of America no better proof of the superiority of these balls than that W. & C. Scott & Sons, after examining every ball in the market, have ordered 2,000 to be sent to England. In no instance where it has been exhibited has it failed to take the place of all others. Every ball is weighed and examined, then packed with the greatest care, in barrels of 300 and boxes of 500. Send for price list. Special inducements to the trade. HEADQUARTERS BOHEMIAN GLASS WORKS, 214 Pearl Street, N. Y.

Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all SPORTSMEN'S CLUBS AND AMATEURS.

THE PATENT ROUGH BALL—The only Ball that will break sure when hit by shot. Use none but the best. Every ball marked. Patented April 10, 1877; Traps, March 13, 1877.

Geo. E. Hart & Co., NEWARK, N. J. TRADE SUPPLIED.



Price \$45. Re-boring and repairing breech-loading shot-guns done promptly and in the very best manner. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Aug 30 '77

HUBER & MERWIN'S CHAMPION BALL TRAP.

We call the attention of the fraternity to the above trap, claiming to be the ne plus ultra. It combines compactness with durability, and is arranged by a wire on the bed-plate, to throw a ball in any direction or at any elevation unknown to the shooter, a screen preventing his seeing the direction in which the trap is set. The spring, as the cut will show, is made of a steel rod or wire, bent spirally at the point of attachment, thus receiving the concussion its entire length, and preventing breakage.

PRICE \$10. FOR SALE BY BARTON & CO., Sole Agents, 337 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP for durability and perfection of its operation, superior to them all, and take pleasure in recommending it as "the Champion" to sporting clubs and my friends. (Signed) IRA A. PAINE.

UNION SQUARE HOTEL, UNION SQUARE, Corner 15th Street, New York. A. J. DAM & SONS, Proprietors. OLD KENTUCKY BOURBON & MONONGABELA, 40 South Clark Street, Chicago.

Sportsmen's Goods.

W. H. HOLABIRD, Manufacturer of Specialties in Clothing FOR SPORTSMEN, Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent by mail, post-paid, \$6. Holabird's New Game Bag; weighs 12 ounces. The most convenient and coolest garment ever offered to Sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2. Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style. Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied. W. H. HOLABIRD, Valparaiso, Ind. Ask your gun dealer for Holabird's goods. 1914

Sportsmen, Attention!

KEEP YOUR FEET DRY.

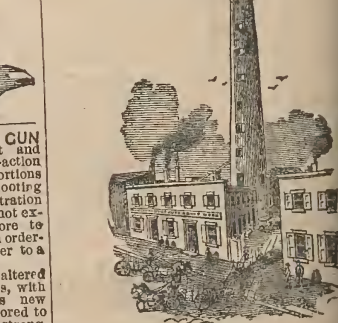


The only premium awarded by the Centennial Commission, Philadelphia, 1-76, for Alligator Waterproof Boots and Shoes. Goods sent to all parts of the U. S., C. O. D. Catalogues containing full instructions for self-measurement sent free on application. 503 Broadway, New York.

GOOD'S OIL TANNED MOCCASINS.

The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine article. Send for illustrated circular. MARTIN HUTCHINGS, P. O. Box 865, Dover, N. H. (Successor to FRANK GORTON). W. HOLBERTON, 102 Nassau St., N. Y., Agent.

Founded July 4, 1838.



Shot & Bar Lead MANUFACTURER.

Office 121 Walnut Street, Philadelphia

Magic Lanterns and Stereoscopes. E. & H. T. ANTHONY & CO., 231 Broadway, N. Y., opposite Metropolitan. Stereoscopes and Views; Graphoscopes, Chromos and Panorammas, Photographs of Celebrities, Photographic Transparencies, Convex Glass, Photographic Materials. Awarded First Premium at Vienna 1876. Philadelphia.

Sportsmen's Headquarters

FOR WINES, LIQUORS AND CIGARS. Outfits for yachting. The camp specialty. Olives by the case, gallon or... THOS. LYNCH, IMPORTER, 90 NASSAU ST., Bennett Building, New York.

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

NEW YORK, THURSDAY, NOVEMBER 29, 1877.

Volume 9.—No. 17.  
[No. 111 Fulton St., N. Y.]

### THE OLD OAK TREE.

"T IS a gray old tree, and its branches three,  
With thin, red leaves, sere and dry,  
Like giants old, still grim and bold,  
Frown up 't; the Autumn sky;  
Yct once it stood  
In the dark green wood,  
A sapling, young and slight,  
Which the deer might crush  
In his onward rush,  
Or the whiffwind in its might.

But hush! let us hear from the aged seer,  
His story of wonders bold;  
Many and oft, were the strange sights seen  
Ere his eyes grew dim and old.  
Hark! hear him speak  
To the breezes bleak,  
As they whirl his dry leaves round;  
His voice is hoarse,  
And gruff, and coarse,  
Yet w. that, 'tis a pleasant sound

"I was born in the Spring, when the breezes sing  
Glad songs to the opening flowers;  
I budded and grew, while the year was new,  
In the shade of my parent bowers;  
Since, many a Spring,  
On the rapid wing  
Of Time, with his hoary head,  
And many a tree,  
With its leaflets free,  
From our beautiful home have fled.

"I'm bound by a spell, and I may not tell  
The wonderful things I've seen;  
To oblivion's shade, a vow have I made,  
To whisper them not again."  
E'en as he spoke,  
The "Storm King's" stroke  
Passed his hoary and scathed head o'er;  
Down, down to the ground  
He sank, and the sound  
Of his voice was heard no more.

As the howling storm, o'er his prostrate form,  
Sweet on in his pathway dread,  
A sad song passed on the wailing blast,  
Like a requiem for the dead.  
"Oh, proudly he stood  
In the dark, green wood,  
A long, long time ago;  
But mourn for the Oak,  
His heart is broke,  
And he lieth now full low."

For Forest and Stream and Rod and Gun.

### A Canadian Fishing River.

MOST of us have looked forward with keen excitement and pleasant anticipation to summer excursions, on whatever line they lead us, whether it be that of the resorter to fashionable spas or those of less ambitious character; whether they be of Acadian quiet and simplicity of country retreats, far away not only from the bustle of the city, but even of rare communication with it, or of village cottages surrounded by but a patch of garden, with green fields to wander in. Even the less pretentious trips, which last but a few days, create a zest and desire for them which tell of innate feeling of love of enjoying the freedom from the every-day life consequent upon a city existence; the pallid influence which seems to paralyze the capacity of rural felicity in the inhabitants of towns and cities. By no means the less enjoyable amusement is that of the sportsman; and in making his purchases prior to a trip he experiences an almost childish delight in anticipation, not only of the pleasures, but the dangers before him; for the quiet and passive river often becomes a boisterous and death-threatening rapids.

Not long since I felt these variations of feeling on a fishing excursion to one of the many fishing rivers near the city of Quebec. It was difficult to make the choice of any one in particular, for we had tried nearly all those within a radius of thirty miles and were ambitious of trying new waters, where few had ever thrown the fly, and where we might, in the solitude of the primeval forest, broken only by the cry of bird or the sound of the wind—"where," one might say, "man never trod before," and sit by our own camp fire and cook the trout whipped by ourselves from lonely streams. After many suggestions, *Le bras de Nord de la Rivière Ste.*

*Anne* was decided on. Our knowledge of it was vague in the extreme; the way to it even was unknown to us, for information regarding it we could not at the time procure. But to it we were determined to proceed, and our after experience taught us that our decision was right, and that we had indeed hit upon the beau ideal of fishing rivers and wild beauty.

The north branch of the River St. Anne, also called the "Little Saguenay" from its almost savage scenery, rises in the mountains of the Laurentian Range and falls into the main river of the same name, which empties itself into the St. Lawrence, some miles above Quebec. Its rocky sides rise precipitously to the height of several hundred feet, and its many rapids render the descent of it in boats a difficult and dangerous undertaking. The country at the upper part of it is wholly uninhabited, and is covered with a dense forest. The consequence is that few but fishermen and sportsmen visit this beautiful and rugged locality. Countless trout shoot the many rapids, or linger in the deep frigid pools of the St. Anne River, and any follower of Izaak Walton may easily entrap many dozens a day.

It was mid-summer—in the dog days—when the frightful heat hurried all who would snatch such liberty from the boiling city to the seaside or to country retreats. The burning pavements were trodden by few pedestrians; the Venetians were tightly closed to shut out the glaring sun, and darkened rooms were sought after by prostrate humanity. Water carts paraded up and down the streets, deluging the thirsty earth, and panting dogs hid themselves in grateful shades. It was mid-summer, and the heat and *ennui* had become intolerable, when I joined the party to try the fishing in the St. Anne River. We were three men—Mr. Torrance, Mr. Percy and myself—and Mr. Torrance's three boys. The purchase of provisions and fishing tackle did not long detain us, and we started from the North Shore Railway station at Quebec at about six o'clock in the afternoon. The first-class carriages had not then been placed on the line, and considering that the road was not completely ballasted, we found the wooden benches rather uncomfortable. This, however, was made up by the courtesy of Mr. Robetaille, the conductor, and the exactitude with which Mr. Robcaille, the engineer, kept up to time. Fortunately the wreckers had not then commenced their diabolical attempts, and we safely arrived at Pont Rouge, or rather Ste. Jeanne de Neuville, as the village is called, in about an hour and a half. Since the building of the North Shore Railway, this village has made rapid strides. Where before there were but few houses, are now erected handsome stores and villas. Near by, the wild River Jaques rushes down its stony bed, and in its waters may be seen the lordly salmon plunging and leaping. Here we engaged two back-boards, and on them we placed ourselves with the luggage and drove on to St. Raymond, about eighteen miles distant, where we arrived about midnight. St. Raymond is delightful; well built shops and dwellings strike one with surprise, for we can scarcely expect to see such signs of prosperity as here represented. A fine church, whose walls inside and ceilings are beautifully freewood, stands in the centre of the village, through which runs a broad street, flanked by wide wooden sidewalks. The river St. Anne runs alongside, and is here crossed by a substantial bridge. Mr. Savary, a prominent villager, very kindly lent us his tent, cooking utensils and a flat which we tried to transport over sixteen miles on an abominable road, which ran over a succession of mountains, so that it was approaching evening before we reached our destination and camping ground. The latter part of our journey was made through the primeval forest, the road having gradually dwindled to nothingness or a squirrel track up a tree. The two men whom we had brought with us from St. Raymond were perfect woodsmen and *chasseurs*. In a very short time our tent was set up in a charming spot on the bank of the river, a fire lit and supper being prepared—a supper of bacon, eggs, trout which we had quickly taken from the river, bread, butter, tea and coffee. Our hunger satisfied, and weary with our long drive and prostrated by the intense heat, we gathered ourselves together in the tent and prepared for slumber. But we reckoned without our host, for myriads of flies—black flies, sand flies, mosquitoes—attacked us so furiously that we were in a short time a mass of bites. The smoke from the immense fire in front of our tent seemed only to exasperate them. Sleep was banished, and we surrendered in a kind of despair to our merciless foes. They seemed not

to trouble the two *chasseurs*, but devoted their united energies to us from the city. Sullenly and anxiously we waited for the break of day and then hurried to plunge into the cool water to refresh ourselves and allay the inflammation of the bites. The bath was delightfully cool, and in some measure relieved us from pain, and the boys could hardly be induced to leave it even for our *al fresco*—breakfast—after having despatched which we prepared for fishing. Our tent was pitched upon the bank of a certain cove in which the water was somewhat shallow. Outside, the current rushed down tumultuously and a precipitous wall, fringed at the summit with luxuriant herbage, guarded the further side. On either side of the tent was a grove of maple trees, while in its rear was a sort of uncultivated field filled with raspberry bushes and strawberry plants rich with their luscious fruits. The beautiful maples completely shaded our tent, and in front of it was built a huge fire to keep off the flies and to cook our meals. Alongside the fire the *chasseurs* had erected a sort of inclosed miniature shed, beneath which our provisions were stored, and they themselves rested secure from the attacks of the sun's rays and descending showers of rain.

We divided into two parties—Mr. Percy, with one of the boys and a *chasseur*, in one boat, and myself, with the two other boys and a *chasseur*, in the second boat. Mr. Torrance remained in camp, he having suffered so much from fatigue and the flies that he felt too much indisposed to venture out. In truth, so much did he suffer that later in the day he despatched one of the men to the nearest house—ten miles off—for a horse and vehicle, and returned to St. Raymond to wait for us on our homeward trip. The whole day unceasingly we fished up and down the river, sometimes running rapids, at other times poling up against the stream, the flies all the while continuing their ferocious attacks and onslaughts. The wild beauty of the scenery of the river is indescribable. At its every turn new scenes of grandeur meet the eye, and one becomes lost in admiration, and bewildered with the varied and picturesque views constantly charging the sight. At one time we find ourselves quietly floating over an inky pool, whose surface is disturbed by whirling eddies and covered with froth and bubbles. In these deep pools lie the monster trout, which give to the sportsman a chance to play his spotted victims and show his skill. From the edge of the river, on each side, rise perpendicular rocks, seeming almost to lean toward each other at their high summits of several hundreds of feet above us, while stunted trees and shrubbery overhang the stream from their rugged sides. At another time the troubled waters rush over a pebbled incline, with here and there huge boulders standing from out the rapid, and giant forest trees of birch, beech, maple, oak and fir grow up from the water's bank in an impenetrable confusion to the foot of the distant mountains, whose purple tops can hardly be discerned from the blue clouds which cover them. In parts these immense trees stretch their branches across the river, which then runs through a shaded avenue of variegated foliage. It was almost dark when we returned to camp, weary with the labor of paddling and wielding the rod, and we were glad to rest on the ground and take our supper. We had been very successful in our catch, having over thirty dozen of fine trout, often having hooked two and three at a time. As on the previous night, the dread flies remorselessly and viciously sucked our blood; but notwithstanding them we were able to snatch a few hours of slumber from the night, and woke in the morning somewhat refreshed, but terribly inflamed in all parts of the body. After again fishing in the vicinity of the camp we landed, and the men struck our tent and placed everything in the two boats for our expedition down the stream to our second camping ground. While they were thus engaged, we wandered about gathering strawberries and raspberries which literally colored the ground. At one o'clock we started the other boat, taking the lead, as the man with Mr. Percy was better acquainted with the river than the man with me, who, it turned out, was very short sighted. Consequently he endeavored to keep as close as possible in rear of the leader, and had he succeeded in doing so an accident, which very nearly caused the loss of all our lives on board, would not have occurred. There was no necessity of much exertion in paddling, as the current is strong and in some places becomes a rapid. So we drifted down the weird, wild river, whipping its surface and becoming every moment more entranced by its unique beauty. By some mismanagement our boatman allowed the leading boat to dis-

tance him, and instead of taking the right channel, was forced into a rapid which ran toward the shore under a fallen tree. In a moment our boat plunged bow foremost into the depths, and the four of us found ourselves above our waists in the water, fortunately just being able to catch hold of the fallen tree, upon which we, after strenuous efforts, were enabled to secure a position. Our camp-cooking apparatus went to the bottom, the provisions, blankets and wraps floated down the stream and were picked up by those in the first boat. After remaining nearly an hour on the tree, which was separated from the shore by over ten feet, so that we could not reach it, we were rescued from our dangerous position by the other boat. The water was at this spot twenty feet deep and the current very strong, so that had we not been able to catch hold of the tree, all would have inevitably been sucked under it and become entangled in its submerged branches without the possibility of extricating ourselves. We congratulated each other on landing at our second camping ground with but the loss of our cooking utensils and fishing rods and the several dozens of trout caught on the way down stream. By the time our tent was set up, a fire built and our wet clothes hung up to dry and a change put on, supper was ready and the shades of night had fallen upon us. Our camping ground was close to the river's edge, in the midst of a dense forest, and the flies, if it were possible, even more vicious. Our supper—the cooking utensils having been lost—had to be prepared in true Indian style. Pieces of bacon and the fish had to be suspended over the fire by a bending twig, while, in place of our tin pannikins, the *chasseurs* manufactured cups out of the inside skin of birch bark which did not leak even one drop. On account of the flies, the intense heat, the excitement caused by our accident, it was utterly impossible to sleep, and the weary vigil of the dark hours seemed never to come to an end, while continuously through the dark hours a night-owl dolourously screamed its mournful notes. The fire in front of the tent lazily burned through the night, and was now and then fed by the two *chasseurs*. Toward morning I thought it had died out completely, but I felt its heat, yet could not see the flames. I had become blind. I put up my hand and found that my eyes were completely closed; the inflammation from the bites had so greatly increased that my power of vision was lost. Calling to one of the men he procured me some cold water, with which for half an hour I bathed my eyes, and at last could discover a thin streak of daylight. I continued bathing till sight was restored sufficiently so as to see where I was going. While the boys were taking breakfast, Mr. Percy and myself took one of the flats—a most unsteady one—to try our luck in fishing. We had paddled to the middle of a pool, and were beginning to cast our lines when, by an unfortunate step by him, the flat was upset and we were both thrown into the water, which was pretty deep. Fortunately we both could swim, and with a few strokes reached land. The occurrence was so ludicrous that neither could help being convulsed with laughter, which brought the *chasseurs* to our assistance, and we recrossed the stream to the camp, while they righted and bailed out the treacherous flat. We had not a third change of clothes, so were obliged to undress and cover ourselves with blankets, while our clothes hung on branches of trees dried slowly before the fire. The sight was certainly amusing; Percy wearing but a blanket of deep blue, and myself one of glaring red, sat lugubriously smoking our consoling pipes before the firewood fire, blazing up high amid a foliage which prevented us seeing the smallest particle of the blue sky, which no doubt covered our canopy of leaves. Sitting thus at the opening of our tent with the two *chasseurs* lazily enjoying their calumets of peace, we might, either of us, but for our rather Saxon appearance, and the absence of warlike weapons, have been taken for Sitting Bull, or one of his war-loving companions. My friend and myself were taciturn; the *chasseurs* were gloomily silent, and the three boys were amusing themselves in the boats far away, and thus the time passed in a dreary, silent solitude, unbroken even by the sad owl which had so continuously kept up his mournful cry throughout the previous night. One sound, however, remained unceasing, one annoyance was unabated; the buzz of flies and their exasperating attacks.

By this unlucky accident our morning's fishing was lost, and when we could put on our clothes the time had arrived for us to continue our course down the river. After partaking of a midday meal we again struck tent, loaded our flats and started. The incident of the previous day made me more watchful of my *chasseur*, notwithstanding which we several times ran the risk of shipwreck by colliding with boulders and fallen trees and hanging branches. The scenery, as we descended, was of the same wild and magnificent character, varied here and there by immense sand-hills which sloped down to the water's edge. Large flocks of wild ducks now and then flew over our heads, and we could hear from far above us their short cry. In the autumn partridge and woodcock are here in profusion, while in winter the ptarmigan from the north are found in multitudes, and caribou are in plenty. Many a well-known sportsman from Quebec and elsewhere come here to fill their game bags and seek the excitement and enjoyment of a hunter's life. One can imagine, but not describe, the wonderful picture this wild country must present when in the fall the leaves change their color; what a beautiful and variegated panorama must be seen, and when one could enjoy it without the torment of black flies and mosquitoes.

In some places the river narrowed between low banks covered to the water's edge with trees of long spreading branches, which hung so near that it was with difficulty we were able to pass under them. Then it would suddenly widen, leaving to our view terraces after terraces of rocks on each side, which appeared to us like castellated battlements, which rose upward till lost in the high heavens. Grand old natural castles, more ancient and more imposing than any on the far famed Rhine. As rapidly again would the scene change to shores fringed with wild waste of strawberry, raspberry and blueberry bushes, behind which magnificent plantations of birch and maple trees hid from view the surrounding mountains. An autumn coloring to such grandeur bewilders the imagination, and in ecstasy we allowed our rods to idly dip into the stream, and our boats to dreamily float downward while we gazed upon the glorious picture. Our trip was soon coming to an end. We in a short time arrived at a sort of lagoon or marsh, through which we waded our flats, and where the heat was almost suffocating and sickening, and the flies agonizing. It led us to the foot of a hill, up which we carried our *impedimenta*, and reached the house of a noted *chasseur*, Mr. Morance, where we enjoyed the luxury of garden strawberries and cream and delicious milk from an ice cold dairy. Here we were met by our horses and vehicles, and we started on our return to St. Raymond, where we arrived in the evening, and found our indisposed friend wholly recovered and very thankful that he did not present the dilapidated appearance we wore—inflamed faces covered with bites, and torn garments.

We put up at Pelletier's Hotel, and sat down to a bountiful repast to which we did full justice. Rising at three o'clock in the morning we started for St. Jean de Neuville, and arrived there in time to take the train for Quebec, which we reached at nine the same morning, and there divided the spoil we had taken in the wondrous wild river St. Anne. O.

For Forest and Stream and Rod and Gun.  
AN AUTUMN REVERIE.

THESE is a beauty and sublimity in brown, fruitful autumn which renders it dear to the heart of every lover of nature and natural scenery. It is a season of luxury, whose praises have been sung by bards the most famous and immortal. True, the season is the harbinger or forerunner of coming winter, when the "sere and yellow leaf," blown from the branches by every fitful breeze, causes the mind to dwell on the death of the year. Yet, with all deference to that delightful poet and moralist, William Cullen Bryant, this period cannot be aptly termed "the melancholy days," "the saddest of the year," though he has maintained that theory in one of the most beautiful poems of our language. To the contrary, although the scene—as has been remarked by the lamented Herbert—presents "a hectic" loveliness, which, like the glow on the cheek of consumptive beauty, is the precursor of decay and death; still, so exquisite is that beauty, so delicious the temperature, the atmosphere, the aspect of the skies—so gorgeous the hues of forest-mantled mountain and deep woodland, that, to me at least, the promise of spring and the fullness of summer are both inferior to the serene and calm decline of the woodland year.

It is at this season that the year reaches its maturity; the red-ripe apples in the orchard, the golden sheaves of grain, the scarlet leaves of the maple—all proclaim that the harvest-time is at hand, and that thenceforward the year shall hasten onward to its close—to the cold, drear days of frost and snow. Autumn is here. It is whispered almost audibly in the soft winds which rustle in the leaves and branches; the cool breezes which fan the parched earth and bid fair nature don her fairest guise, the attire of crimsoned scarlet, orange, brown and emerald. The change, the transition, from midsummer to autumn is rapid, certain and easily distinguished. The elements herald it abroad in unmistakable language. It is seen in the purple mist wreaths along the streams and lake-side, curtaining the morning sun—heard in the carols of autumnal songsters, and felt in the keen, bracing atmosphere of morn and dewy eve.

Yet, it is not until "hearty, brown October" has arrived that the full glory of autumn is attained. Then it is that the varied tints of the forest are most conspicuous, most dearly prized; when the hazy atmosphere of royal Indian summer partially veils the landscape, closing in dim and misty about the valley and hovering around the mountain side—a shimmering, gauze-like veil to the beauties of sylvan scenery. Nature, ever lavish with her charms, "beautiful in all and every guise," is now seen in the most varied and delightful garb. The deep, snowy mantle and bare branches of winter; the emerald verdure of budding spring time, or the full flush of ripe mid-summer beauty, cannot compare with the delicate tints and bright splendor of mature autumn. It outshines and outvies its sister seasons, even as vigorous manhood outvies childhood, youth and old age.

These outward attractions are visible to every observing mind, while to the sportsman this constitutes but a tinge of its real glory. With him this season is the prime favorite, not alone because of its invigorating air and grand scenery, but also in that it is the period of field sports, of the chase and of shooting. The barc, wild moor, the meadow and the stubble have for him an additional beauty, because therein are the coverts of grouse and quail. The wide spreading forest of dark emerald, brown or russet, has a new delight to the sportsman, as the resort of nobler game—the elk, bear and deer; while the sequestered bays, cool blue lakes and clear streamlets are viewed as the habitation of the finny tribe and the haunts of legions of wild fowl. Where'er he rambles—and his tons undeniably lead him through the most entrancing of natural scenery—the field sportsman, whether down in the valley, in the woodlands, on the mountain side, or the prairie, takes in an inspiration of nature pure and undefiled, such as the city exquisite or dandy never imagined, even in his visions. Here, in the deep fastnesses, he may truly and fervently exclaim in unison with "Childie Harold":

To sit on rocks, to muse o'er food and fell,  
To slowly trace the forest's shady scene,  
Where things that own no man's dominion dwell,  
And mortal foot hath never rarely been;  
To climb the trackless mountain all unseen,  
With the wild cock that never needs a fold,  
Alone o'er sleep and foaming falls to lean—  
This is not solitude, 'tis but to hold  
Converse with nature's charms, and view her stores unrolled.

The grand, the picturesque, and the beautiful in natural scenery the sportsman views at its best, untrammelled by civilization and unmarred by the resistless march of improvement.—Heaven save the mark! which defaces the most magnificent of nature's works, in the one end and aim of utility. Something of the spirit of reverence for "the good, the true and the beautiful" is firmly implanted in the bosom of every true lover of the mysteries of woodcraft or the gentle art of angling. And whether it be with dog and gun in the woods and meadow, or with rod and line along the trout stream, the sport is enhanced by the grandeur of the scenes through which he passes. All the carols of the song birds—beautiful choristers—and the refrain of the whistling quail and woodcock strike pleasantly upon his ear. In such pastimes

"There is a pleasure in the pathless woods,  
There is a rapture on the lonely shore."

Autumnal sport has been honored in elegant verse by the most illustrious disciples of the muses, and by the ablest prose writers from the days of Pliny down to the present time. No more spirited and glowing descriptions of the chase and field sports in general have been produced in modern times than the delightful prose and poetry of that gifted, immortal sportsman bard, Sir Walter Scott. His poetical effusions, as well as the sublime Waverley novels, teem with bright delineations of his beloved field sports; and his magic pen has done much to render romantic and popular both the woodman's and the angler's craft. Several of his leading characters in romance are made to exemplify his own spirit in this respect. David Gellatley is made to sing the inspiring lines:

He away, he away,  
Over bank, and over brae,  
Where the cowslad is the greenest,  
Where the thistles glisten sheenest.

Where the lady fern grows strongest,  
Where the morning dew lies longest,  
Where the black-cock sweetest sips it,  
Where the fairy latest trips it;  
He to haunts right seldom seen,  
Lovely, lonesome, cool and green,  
Over bank and over brae,  
He away, high away.

The enthusiastic love of Sir Walter Scott for rural scenes and pleasures seems to pervade all his writings, and his master mind has crowned with new laurels the sports of field and flood; drawing from the inexhaustible fount of his bright intellect those pen portraits of sylvan scenes which have charmed the world. Frank Forster has immortalized the Warwick Woodlands of Orange County, N. Y., to the sporting fraternity of America, and Scott has rendered the Ettrick Forest and the Tweed immortal where'er the English language is spoken. Being an adept in the chase, or—as termed in ancient times—"the noble art of Venerie," his spirited lines are not merely beautiful as poetic descriptions, but as accurate delineations of his own pastimes; the keen enthusiasm of the sportsman shining out resplendent in both prose and poetry.

With its manifold charms Autumn is truly calculated to inspire the mind of the poet and the pencil of the artist. It comes in a halo of incomparable lustre, and, as Isaac McEllan, the genial bard of the woods and waters hath said:

Now when the gentle breezes  
Sweep through the fading wood,  
Tossing the scarlet maples,  
And oak leaves many head;  
Ere dawns the day o'er hill and lawn,  
The sportsman takes his way  
To upland moor, or woodland haunts,  
Or open breezy bay.

The bright dawn, the rosy morn and golden sunset are viewed at their best by the woodman, far from the distracting hum of the city; in the primeval forest where standing upon an eminence, he may see spread out before him as a panorama, the most gorgeous of all pictures, drawn by the unerring and magic pencil of sunlight—

The hill, the valley, the lake and the stream,  
The glen and the greenwood, all bright in its gleam.

Such are a few of the allurements of autumn and autumnal field sports, better by far than the fabled waters of the Fountain of Youth to the over-worked mechanic and brain-wearied business man; a boon beyond price to all humanity—a sylvan retreat wherein all may gain health, vigor and a due appreciation of fair Nature and her works. Away from the workshop, the desk, the loom and the sewing-machine. Ho! for a holiday in the woods, to return revived and invigorated; with such an appetite and such real strength, both of mind and body, as comes only from free life in the open air.

WILL WILDWOOD.

## Fish Culture.

AQUATIC PLANTS FOR FISH PONDS.—A correspondent continues this subject as follows:

IN FOREST AND STREAM FOR NOV. 1st, the question is asked by a pisciculturist, "What kind of grass and weeds would be best adapted to a pond with a gravelly bottom, situated in Vermont?" Taking for granted this pond is constructed on the most approved plan, it will be deeper in the middle than at the edges, which conditions are not only favorable to many species of fish, but for the growth of numerous aquatic plants. By the margin, and to a considerable depth, many varieties of this class of plants could be grown. And those deserving of most attention by the fish culturist, belong chiefly to the pond weed family (*Potamogeton*) many of which inhabit the ditches, ponds and rivers of the Northern States, and therefore would be quite at home in Vermont. In addition to *Potamogetons*, several others in Naiadaceae are held in still higher esteem; and we have been informed by one who has made the habits of *Salmo fontinalis* a special study, that the Naiadid *annichelia polystris* is greatly more prized by that fish than any other; and although not quite common it can easily be taken from one place to another and successfully planted. Water milfoil, too (*Myriophyllum*), and bladderwort (*Utricularia*), several of which grow under water, and have long floating stems, and fine grass-like leaves, afford, in common with the others named, quiet retreats and resting-places not only for fish and their fry, but for numberless aquatic insects upon which they feed.

But when the object is to attract winged insects to the water, another class of plants must be called into requisition, and we know of none better than the common white water-lily, several of the aquatic grasses and sedges which are distributed over a wide extent of country, and therefore easily obtainable. Some of these, however, should be planted by the margins of ponds, or on islets either natural or formed for the occasion, while others would do equally well within water mark in little bays and creeks; and in addition to luring insects thitherward they might, if properly disposed of, add materially to the picturesque quality of the scene, and thereby afford so much the more pleasure to men of taste and refinement.

The grasses we would chiefly recommend are *Phragmites communis*, *Glyceria canadensis*, *G. elongata*, *G. acutiflora*, *G. fluviatilis* and *G. aquatica*; *Spartina cynosuroides* and *S. stricta*, *Var. glabra*, *Calamagrostis canadensis*, *Zesania aquatica*, although an annual, is yet a noble grass, and holds no mean place in the extensive order to which it belongs. The *Sedge* family might be represented by quite a number of species, but chiefly by *Carex comosa*, *C. crinita* and *Pseudo-cyperus*, *Scirpus polyphyllus* and *eriphorum*. Among exogens, *Najas verticillata*, *E. jubulum angustifolium*, *palustre* and *coloratum*. *Polygonum*, *Amphibium* and *Pennsylvanicum* are well deserving of a place—some for the beauty of their flowers, others for the gracefulness of their forms. *Najas* we regard as especially appropriate, and when grouped with *Carex comosa* and *crinita* presents a miniature picture of rural beauty hardly to be excelled, and needs only to be seen, never more to be forgotten.

A. VETTER.

FISH LAWS AND POLITICS.—The action of the New Hampshire Fish Commissioners in closing the waters of Lake Winnepesaukee for sixty days has given rise to some amusing crimination among the papers of that State. One organ calls upon the people to rise against the law which is an outrageous imposition of the Republican party. To this the *Manchester Mirror* replies that the law was drafted by a Democrat, and passed by unanimous vote of both parties. Meanwhile the fish are growing fat, and rather hope for another "party outrage" of the same sort.

Natural History.

GEOLOGICAL STUDIES IN THE TERRITORIES.

WE are in receipt of the following most interesting data, which have been furnished us by Mr. J. V. Hayden in advance of his coming publication:

Prof. Joseph Leidy, the eminent comparative anatomist and microscopist, made his second visit to the West the past season under the auspices of the survey. He made a careful exploration of the country about Fort Bridger, Viñatah Mountains and the Salt Lake basin in search of rhizopods. He has been engaged for a long time on a memoir on this subject which will eventually form one of the series of the quartos of the Survey.

The rhizopods are the lowest and simplest forms of animals, mostly minute, and requiring high power of the microscope to distinguish their structure. While most of them construct shells of great beauty and variety, their soft part consists of a jelly-like substance. This the animal has the power of extending in threads or finger-like processes, which are used as organs of commotion and prehension, often branching. From the appearance of their temporary organs, resembling roots, the class of animals has received its name of rhizopod, meaning literally root-footed. In compensation of the smallness of these creatures, they make up in numbers, and it is questionable whether any other class of animals exceed them in importance in the economy of nature. Geological evidence shows that they were the starting point of animal life in time, and their agency in rock-making has not been exceeded by later, higher and more visible forms. With the marine kind, known as foraminifera, we have been long-t familiar. The beautiful, many-chambered shells of these—for the most part just visible to the naked eye—form a large portion of the ocean mud and the sands of the ocean shore. Shell of foraminifera likewise form the basis of miles of strata of limestone, such as the chalk of England and the limestones of which Paris and the pyramids of Egypt are built. Fresh water rhizopods, though not so abundant as marine forms, are nevertheless very numerous. They mainly inhabit our lakes, ponds and standing waters, but they also swarm in sphagnum swamps, and ever live in newest earth. Professor Leidy has devoted several years of study to the fresh water rhizopods of the Eastern portion of our country, and his especial object in the past expedition was to investigate those which are to be found in the elevated regions of the Rocky Mountains.

The botany of the Survey was represented the past season by the two great masters of that department, Sir Joseph D. Hooker, Director of the Gardens of Kew, England, and President of the Royal Society of London, and Prof. Asa Gray, of Cambridge, Mass. Their examinations extended over a great portion of Colorado, Wyoming, Utah, Nevada and California. Their investigation into the alpine floras and tree vegetation of the Rocky Mountains and Sierra Nevada enabled them to give a clear idea of the relations and influence of the climatic conditions on both sides of the great mountain ranges. Sir Joseph Hooker, whose botanical researches embrace the greater part of Europe; the Indies, from the Bay of Bengal across the Himalayas to Tibet; the Antarctic regions and the southern part of South America; New Zealand, Australia, South Africa, Morocco and Asia Minor, presents in the English periodical, *Nature*, for October 25, an outline of his studies during the season, and this outline when filled out will form a most important report for the Eleventh Annual report of the Survey. It will be seen at a glance that the report will be of the most comprehensive character and cannot fail to be of the highest interest to our people. The tree vegetation, and especially the conifers, were made especial objects of study, and many obscure points were cleared up.

Of a section of the Rocky Mountains comprising Colorado, Wyoming and Utah, Dr. Hooker says: "Such a section of the Rocky Mountains must hence contain representatives of three very distinct American floras, each characteristic of immense areas of the continent. There are two temperate and two cold or mountain floras, viz: (1) a prairie flora derived from the eastward; (2) a so-called desert and saline flora derived from the west; (3) a sub-alpine; and (4) an alpine flora; the two latter of widely different origin, and in one sense proper to the Rocky Mountain ranges."

The principal American regions with which the comparison will have first to be instituted are four. Two of these are in a broad sense humid; one, that of the Atlantic Coast and which extends thence west to the Mississippi River, including the forested shores of that river's western affluents; the other that of the Pacific side from the Sierra Nevada to the western ocean, and two inland, that of the northern part of the continent extending to the Polar regions and that of the southern part extending through New Mexico to the Cordillera of Mexico proper.

The first and second (Atlantic plus Mississippi and the Pacific) regions arc traversed by meridional chains of mountains approximately parallel to the Rocky Mountains; namely, on the Atlantic side by the various systems often included under the general term Appalachian, which extend from Maine to Georgia; and on the Pacific side by the Sierra Nevada, which bounds California on the east. The third and fourth of the regions present a continuation of the Rocky Mountains of Colorado and Utah, flanked for a certain distance by an eastern prairie flora extending from the British possessions to Texas, and a western desert or saline flora, extending from the snake river to Arizona and Mexico. Thus the Colorado and Utah floras might be expected to contain representatives of all the various vegetations of North America except the small tropical region of Florida, which is confined to the extreme southeast of the continent.

The most singular botanical feature of North America is unquestionably the marked contrast between its two humid floras, namely, those of the Atlantic plus Mississippi, and the Pacific one. This has been ably illustrated and discussed by Dr. Gray in various communications to the American Academy of Sciences and elsewhere, and he has further largely traced the peculiarities of each to their source, thus laying the foundations for all future researches into the botanical geography of North America; but the relations of the dry intermediate regions, either to these or to the floras of other countries, had not been similarly treated, and this, we hope, we have now materials for discussing.

Dr. Hooker sums up the results of the joint investigations of Dr. Gray and himself—aided by Dr. Gray's previously intimate knowledge of the elements of the American flora—from the Mississippi to the Pacific Coast, "that the vegetation of

the middle latitudes of the continent resolves itself into three principal meridional floras, incomparably more diverse than those presented by any similar meridians in the old world, being, in fact, as far as the trees, shrubs, and many genera of herbaceous plants are concerned, absolutely distinct. These are the two humid and the dry intermediate regions above indicated.

"Each of these, again, is sub-divisible into three, as follows: "1. The Atlantic slope, plus Mississippi region, sub divisible into (a) an Atlantic, (B) a Mississippi Valley, and (V) an interposed mountain region, with a temperate and sub-alpine flora.

"2. The Pacific Slope, sub-divisible into (a) a very humid, cool, forest-clad coast range, (B) the great, hot, drier California Valley, formed by the San Juan River flowing to the north and the Sacramento River flowing to the south, both into the Bay of San Francisco, and (V) the Sierra Nevada flora, temperate, sub-alpine and alpine.

"3. The Rocky Mountain region (in its widest sense extending from the Mississippi, beyond its forest region, to the Sierra Nevada), sub-divisible into (a) a prairie flora, (B) a desert or saline flora, (V) a Rocky Mountain proper flora, temperate, sub-alpine and alpine.

"As above stated, the difference between the floras of the first and second of these regions is specifically, and, to a great extent, generically absolute; not a pine or oak, maple, elm, plane or birch of Eastern America extends to Western, and genera of thirty to fifty species are confined to each. The Rocky Mountain region, again, though abundantly distinct from both, has a few elements of the eastern region, and still more of the western.

"Many interesting facts connected with the origin and distribution of American plants, and the introduction of various types into the three regions, presented themselves to our observation or our minds during our wanderings. Many of these are suggestive of comparative study with the admirably results of Heer's and Lesqueren's investigations into the pliocene and miocene plants of the north temperate and frigid zones, and which had already engaged Dr. Gray's attention, as may be found in his various publications. No less interesting are the traces of the influence of a glacial and a warmer period in directing the course of migration of Arctic forms southward, and Mexican forms northward in the continent, and of the effects of the great body of water that occupied the whole saline region during (as it would appear) a glacial period.

"Lastly, curious information was obtained respecting the ages of not only the big trees of California, but of equally aged pines and junipers, which are proofs of that duration of existing conditions of climate for which evidence has hitherto been sought rather among fossil than among living organisms."

Messrs. S. H. Scudder, of Cambridge, and F. C. Bowditch, of Boston, spent two months in Colorado, Wyoming and Utah, in explorations for fossil insects, and in collecting recent Coleoptera and Orthoptera, especially in the higher regions. They made large collections of recent insects at different points along the railways from Pueblo to Cheyenne, and from Cheyenne to Salt Lake, as well as at Lakin, Kans.; Garland and Georgetown, Colorado, and in various parts of the South Park and surrounding regions. For want of time they were obliged to forego an anticipated trip to White River to explore the beds of fossil insects known to exist there. Ten days were spent at Green River and vicinity in examining the tertiary strata for fossil insects, with but poor results. Ten tertiary beds of the South Park yielded but a single determinable insect, but near Florissant, the tertiary basin, described by Mr. Peale in one of the annual reports of the survey, was found to be exceedingly rich in insects and plants. In company with Rev. Mr. Lakes, of Golden, Mr. Scudder spent several days in a careful survey of this basin, and estimates the insect bearing shales to have an extent at least fifty times as great as those of the famous locality at Eningen, in southern Bavaria. From six to seven thousand insects, and two or three thousand plants, have already been received from Florissant, and as many more will be received before the close of the year. Mr. Scudder was also able to make arrangements in person with parties who have found a new and very interesting locality of tertiary strata in Wyoming, to send him all the specimens they work out, and he confidently anticipates receiving several thousand insects from them in the course of the coming winter. The specimens from this locality are remarkable for their beauty. There is, therefore, every reason to believe that the tertiary strata of the Rocky Mountain region are richer in remains of fossil insects than any other country in the world, and that within a few months the material at hand for the elaboration of the work on fossil insects, which Mr. Scudder has in preparation for the Survey, will be much larger than was ever before subject to the investigation of a single naturalist.

GROWTH OF TROUT.

OAKLAND, BERGEN CO., N. J., Nov. 11.

Friend Hallock—Having been interested very much in the experience of several parties which has appeared in the columns of the FOREST AND STREAM in regard to the growth of trout, I beg leave to offer a few lines of what I know about trout raising.

There is a great difference in the growth of trout in different streams, owing, no doubt, to the kind and quality of food as well as quantity. All fish culturists are aware that trout of the same age bred in same waters from the same parents are not all of the same size, even at six weeks old or one month after they begin to feed, although their chances were equal in every respect. I begin to sort my trout when they have been feeding for a month, and I always have three sizes I raise as small fish as any one, and I think as large as any one. Last year I sold a lot of two thousand at nine months old that would measure from four to six inches in length, every one of them. I had another lot of trout that were hatched at the same time from the same lot of eggs that were fine, vigorous little fellows not more than an inch and a half long—fed the same, had the same chance in every respect. Out of the same lot of eggs I had another pond of fish that were about two and a half or three inches long. My facilities were perhaps better for experimenting than some of your correspondents', they being all right as far as their experience went. Now, I wish to claim your attention a little further, and explain another experiment.

Two years ago I placed, within a week's time, several pairs of trout in a small spring pond, and let them spawn themselves. As soon as they were done spawning, I took them out; I put pairs enough in until I thought there would be fish enough for the pond and two other smaller ponds below with a fall between them of eighteen inches or more without any screens between them; but at the last pond I placed a screen

SALMON IN PENNSYLVANIA RIVERS.

We hasten to offer our congratulations to the Fish Commissioners and people of Pennsylvania, the first for their crowning success, and the second for their great acquisition. The story of the first Pennsylvania salmon, which we recorded last week, is fully told in the following article from the *Easton Express* of November 23:

SALMO SALAR.—THE FISH CAUGHT IN THE BUSHKILL YESTERDAY—ITS SCIENTIFIC IMPORTANCE—ARTIFICIAL STOCKING OF STREAMS NO LONGER AN EXPERIMENT.—The killing of the large fish in the Bushkill, a full account of which appeared in the *Express* of yesterday, is of the greatest scientific significance, because it gives the assurance of success to the stocking of the streams of this and other States, an experiment which has been attracting the attention of modern pisciculturists and because it demonstrates the practicability of rendering the salmon—the king of all game fishes—a *habitat* of the waters of our latitude. The Bushkill has been made the depository of a large number of salmon for some years past. The first lot of fish introduced into this stream was placed there about eight years ago by private enterprise. They were the *salmo salar*, or the salmon of the North. The first attempt in the same direction made by the State Fish Commissioners was in 1873. These also were the *salmo salar*.

Since 1873 there have been large numbers of either the *salmo salar* or the *salmo gairdneri* (California salmon), planted each year in the Bushkill. The *salmo salar* never having been heard of since their introduction, and as they require water of a very low temperature, and as it is extremely problematical whether they have ever inhabited our waters, the failure of the attempt to stock our waters had come to be regarded as a failure.

The capture of this fish, however, has crowned their labors with all the success that had ever been hoped for, and will stimulate the Fish Commissioners of this and neighboring States to renewed efforts. Their zeal has been untiring and their reward most satisfactory.

The salmon was last evening carefully examined by a number of gentlemen who take great interest in the scientific classification of fish, and was unanimously pronounced by them a female *salmo salar*, probably of the hatching of 1873.

The fine fish the *Easton Free Press* says was taken in Groetzinger's mill race on the Bushkill, at the foot of Fourth street. It was on exhibition at the office of that journal, preserved in a refrigerator, and was finally sent to the Smithsonian Institution for preservation. One thing remarkable to be borne in mind is that the Hudson River has hitherto been the southern limit of the range of *Salmo salar*, and it is not fully authenticated that it has ever populated the Hudson.

The fish may be described as follows: Weight, 9 pounds; length of head, 6½ inches; total length, 33 inches; Caudal, when expanded, 9 inches; girth in front of Dorsal fin, 15 in. ches.

Shape, ellipse considerably elongated, the greatest depth being in front of Dorsal fin.

Shape of Caudal almost straight, being very slightly lunate. Color—Back greenish-blue, marked above the lateral line by irregular X shaped dark spots, from an inch to inch and a half apart. There are also two or three marks on the Opercle. Sides, silver gray; belly, white.

Teeth—Incurved. Upon the maxillaries, intermaxillaries, palatines, and tongue, with two or three more upon the vomer; bronchial rays, 12 in number.

Number of fin rays: Pectoral, 18 inches; ventral, 9 inches; anal, 9 inches; dorsal, 12 inches; caudal, 18 inches, exclusive of rudimentary rays; second dorsal, adipose, this being an unmistakable characteristic of the *salmonidae* family; gill covers with rounded edges; scales small.

The fish, which was apparently ripe for spawning, contained a large quantity of eggs, deep orange in color, and a little over two lines or one-fifth of inch in diameter.

The color of the fins was quite dark, showing that the fish had been for a considerable time in fresh water. This view is corroborated by the emaciated condition of the salmon and the deep color of its back.

It is reasonably certain from all the indications that the fish left the sea in June or July, at which time she weighed not less than thirteen pounds, and was with her male companion in the net of preparing bed when discovered and captured.

While the entire community may be congratulated upon the taking of this fish, because of its scientific testimony, and the encouragement it gives to a good work, it is at the same time proper that attention should be called to the law which prohibits the taking of salmon between August 15, and April 1, and imposes a penalty of \$10 upon all violations of the same.

AMERICAN OVA WANTED IN EXCHANGE FOR PRUSSIAN.

We are much pleased to further the very commendable object set forth in the following letter from Mr. Mather, who is now in Prussia:

EDITOR FOREST AND STREAM. BERLIN, Nov. 7, 1877.

Mr. Carl Schuster, of Friedberg, wishes to exchange ova with American fish culturists, and has to offer those of the common trout of Europe (*salmo faro*), the salmon (Rhine), *S. salar*, the white-fish of Lake Constance (*coregonus fera*) and the "charr" or salbling (*salmo subvarius*).

The latter fish is well known in England as "charr," and is somewhat like our own brook trout, but higher colored; in fact, it is the English standard of redness, as they often say, "as red as a charr."

Prof. Peters calls it the finest salmon for the table in Europe, and some of our fish culturists will do well to ship Mr. Schuster some trout eggs, which he wishes, and get this fine fish in return. He is an honorable gentleman and an enthusiastic fish culturist, who has done much for German fish culture.

I have seen his place, and consider it very perfect. He has had many of the "Holtz" boxes made to hatch the coregonus of Lake Constance this winter. Address packages or letter to Oberburgmeister, Carl Schuster, Friedberg, Bregau.

I think that the Americans need only to see the charr to appreciate it.

I have mislaid Mr. Schuster's price list, but will find it on unpacking and will publish it.

FRED MATHER.

—In our answer to Dr. E. S., Cleveland, as to first description of Michigan grayling, we should have said Joel C. Parker, (not John) Dentist, Grand Rapids, Mich. It was not a published description, but an identification sent to Prof. Theo. Gill.



catch and kill the birds so unfortunate as to get in their way. The young of March breed in August. They have from one to four in a litter. The "babies" come to the ground when two months old. They practice a great deal on the limbs and bodies of the tree ere they venture to the ground.

The old ones often engage in fierce combat, and tumble from the trees locked in each other's arms. One of them attacked a straggle, who began digging up a nut just buried by "buonito." But they have never been known to bite any one while feeding them.

It is a great source of amusement here for the children to visit the park and feed these public pests. Would it not be well for other cities to follow the example of Memphis. The boxes for the squirrels cost no more than the houses built for sparrows. ARROW.

*For Forest and Stream and Rod and Gun.*

A VISIT TO A NESTING PLACE OF THE WOOD IBIS.—*Taularius leucolator.*

DURING the winter of 1874, while on a collecting tour in Florida, I encamped on the east side of Lake Harney in company with two hunters. I had taught these men to make respectable skins, and had interested them in a slight degree in Natural History. Together we had made several collecting trips in the vicinity of Lake Harney, at one time shooting and skinning 140 herons, of several varieties, on Lake Jessup in four days. I was just preparing to depart for the North, when I heard of a large nesting place of "gannets," as the "crackers" called birds which subsequently proved to be Wood Ibises (*Taularius leucolator*). The nesting place was reported to be on the shores of a lake of considerable size about midway between Lake Harney and the Indian River.

After many inquiries, I decided to attempt to find this breeding place. We placed our boat on an ox cart, and having packed all camping utensils inside, we started off. After a tedious journey over the roughest of Florida roads, we reached Lake Ashby, and pitched our tent. Dismissing our team with instructions to call for us in a week, and having partaken of a hasty repast, we started off in our boat. We hunted all the afternoon on the shores of the lake, and although we found many nests of the snake bird (*Pleus aubingus*), yet we not only saw no nests of the wood ibis, but no birds. Early next morning saw us in our boat, ready for a hard day's pull; but as soon as we left camp I saw, on the opposite shore of the lake, large numbers of white birds. Rowing there our eyes were gladdened by the sight of numbers of large nests, perched in the tops of lofty cypress trees. Numbers of wood ibis flew from the nests at our approach.

These trees were not on terra firma, but were about forty yards distant in the water. Drawing our boat in the swamp, we separated, two of us to shoot, and the other to stay in the boat and retrieve birds. The birds soon came back to their roosts, and we shot all the morning killing 26. The birds, although very large, are, in common with the heron tribe (*Ardeidae*), very easy to kill. During the day we lost four birds by the "gators" picking them up before the boatman could get to them. I never saw "gators so cheeky; we struck one twice on the head with an oar, and he still kept on after the bird. I finished him with a load of buckshot, and found him 8 feet, 7 inches long. In three days we collected all the wood ibis' skins and eggs we wished. Most of the eggs were hatched, and the downy little birds, with such huge bills and unshapely heads, presented a funny sight.

Having four days to spare, we started through a cypress swamp after a white heron (*Ardea egretta*) roost. I saw, in this day, more moccasin snakes than I ever saw before, or will probably see again. Every tussock of grass concealed one, and, as we were obliged to jump from one firm spot to another, we stood in great danger. I was walking, or rather jumping, behind one of the men, when a large moccasin sprang for him, and actually tore a triangular rent in his trousers, where they overhung his boots. I shot the snake's head off from between the man's legs, and on measuring him, I found he was 78 inches long, his fangs being  $\frac{1}{2}$  of an inch in length. I have seen thousands of moccasin snakes in this State, but I confess this is the largest. I felt nervous the rest of the day. We shot a fine fat doe on this trip, and had to lug her saddle six miles—no easy job through a swamp.

On reaching camp I had a violent chill and fever, and before I got back to Lake Harney, I had four chills; and that, combined with the ride of twelve miles over a road crossed and recrossed by palmetto rocks, so told me up that I was very ill, and did not enter New York Harbor till May 1. This short trip is the roughest and most disagreeable I have ever made in pursuit of bird skins, but when it was all over and I was in my home, I considered myself well repaid.

The wood ibis (*Taularius leucolator*) is, generally, a very shy bird, and but few are collected. They feed on aquatic plants, and, when young, are very fair eating. I also collected some fine skins of the white ibis (*Ibis alba*). I forgot to mention that Lake Ashby abounds in fine black bass, which take a spoon readily, but refuse a fly.

If any of your readers wish to visit this unhealthy locality in pursuit of the wood ibis, I will give him or them all needed directions for finding the place, also the names of guides. Deer and turkeys are very numerous. We heard the latter gobbling every morning in the swamps, but the place is a hot-bed of malaria, and seems to be the home of moccasin and rattlesnakes. WM. K. LENTZ.

*Lentz's Landing, Lake George, Florida.*

[We have to thank our correspondent for the above extremely interesting account. If we mistake not, the breeding place which he visited is the same of which Dr. Bryant speaks in his account of the nesting habits of the wood ibis (Proc. Bost. Soc.). Is our correspondent confident about this species feeding on aquatic plants? We had always supposed that its food was almost wholly animal—aquatic reptiles, fish, crustacea, etc., etc. Compare Audubon's account of the species, also C. . . .]

WHAT OUR DUCKS EAT.—A friend, interested in a note which recently appeared in *FOREST AND STREAM*, entitled "What the red-head ducks eat," has forwarded to us the contents of the craw of a pintail duck, *Doftia acuta*, suggesting that a determination of its food may be interesting. The specimen was killed near Saybrook, Conn., Nov. 6, 1877. The mass of the material sent to us consists of three species of seeds together with a few minute shells. These last were mainly, if not altogether, a species of *Limnaea*, probably *L. humilis*, although in my first examination we thought we detected a specimen of *Planorbis*, which a re-examination of the material failed to reveal a second time. The seeds, which were kindly identified for us by Prof. D. C. Eaton, of New Haven, consisted of a few grains of rye, a few specimens of the seed of *Ruppia maritima*, Linn., a species which it will be remembered was very abundant in the craw of the red head duck re-

ferred to in a previous issue of *FOREST AND STREAM*, and a great quantity of the seeds of *Zarnichella palustris*. Concerning this latter plant Prof. Eaton writes us that it is "found in ponds and slow streams from New England to Florida, Bahamas, Utah, Europe, India, etc., though after all not a very common plant. I have it from the Connecticut River, near Saybrook, or rather from ditches near the river." It is interesting to note that the duck from which the seeds were taken was killed precisely in the locality given for the plant, a fact of which Prof. Eaton was ignorant when he identified the species.

—The *FOREST AND STREAM* is of course correct in its disbelief of the muddled and very erroneous paragraph which appeared in a news column of this paper two weeks ago as to some of our chief game-birds. The true name of our partridge, which we have so long been familiar with, is quail, and is claimed by some to belong to the grouse family; our commonly known pheasant is the ruffed grouse. It is the partridge of New England, and we have more than once been bothered at accounts of its food, habits, weight, etc., in the local papers of that section.—*Germantown Telegraph*, Nov. 21.

—COLUMBIA.—Greene Smith, Esq., is especially interested in the family of birds, the study of which has afforded pleasure to fanciers for many generations. We are pleased to print for him the following letter:

KENNESBTON, COOK COUNTY, Ills.  
 EDITOR FOREST AND STREAM:  
 Sir—Please allow me, through your columns, to thank Mr. Ira A. Paine for his kind presentation of a beautiful pair of blue rocks. I have studied them at the trap (sometimes mournfully), but never in their wild state. His addition increases the number of species in my collection of *Columbia* to thirty-six.  
 Respectfully yours,  
 GREENE SMITH.

A CAT TOLLING DUCKS.

BALTIMORE, NOV. 16, 1877.  
 EDITOR FOREST AND STREAM:  
 While on a ducking expedition a few days ago on Back River near this city I witnessed something quite new to me, and I send it to you as it may be new to many of your readers. On the shore of a deserted house the family had left a black cat. This animal, having to depend upon her natural resources for food, adopted the novel expedient of tolling some ducks, and when seen by the writer was actually engaged in running up and down the shore, while four canvas-backs were coming straight in to her; and in a few minutes one would no doubt have fallen a victim to the curiosity of the bird, but the writer took upon a stalk in the effort to get near enough for a shot, which attracted the attention of the cat and the curtain fell. I am a ducker of twenty years' standing, have heard of foxes tolling ducks by wagging their tails and leaping along the shore and getting them too; have heard of ducks coming in to a cow's tail on the shore, but never heard of or saw a cat engaged in the operation. If any of your readers know of anything of a similar nature, I should like to hear of it through your columns.  
 Respectfully,  
 C. L. O.

QUAIL AT SEA.

Mr. Editor: I am naturally interested in the article headed "Quail at Sea," in your last issue, and should like to know who the strange birds your Norfolk correspondent speaks of. Will he not send me a specimen? The description he gives is not recognizable. It is not in the least improbable that a non-indigenous species should reach our shores. Europe and America have many a time exchanged stragglers of numerous species of birds.  
 The gentleman who writes from Baltimore strangely misquotes me when he says that page 236 of my "Key" states that "the differences between the European and American birds (quail) are hardly appreciable." As I have labored many times to impress upon the American public, in these columns and elsewhere, the American Bobwhite (*Oryzopsis Virginiana*) is of a different species and of a different genus, and of a different sub-family, from either the European partridge (*Perdix amentra*) or the European quail (*Coturnix cactylionemus*). What I did say in the place mentioned was this: "It is highly improbable that, as a group, they (i.e., the forty or more species of American partridges) are separable from all the forms of the latter (i.e., the many species of Old World partridge) by any undecided peculiarities" meaning thereby, as is clear from the context, that it is hard to draw the technical line between the New World and Old World species collectively, but that every one of our forty kinds of partridges is not perfectly distinct, generically and specifically, from any and every one of the Old World forms. Yours truly,  
ELLIOTT COVES.

*Smithsonian Institution, Washington, D. C.*  
 [REMARKS.—We are persuaded that the quail met at sea were unquestionably the identical birds imported from Europe not many weeks ago by Mr. Everts, of Vermont.  
 We have several important communications on this subject which will appear in our next issue.—Ed. F. & S.]

SPLIT BAMBOO RODS.

To our customers and the public.—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.  
 CONROY, BISSETT & MALLESON,  
 Manufacturers, 65 Fulton Street, N. Y.

—To be true to one's self is to be true to the world. This is equally true in the commercial and moral duties of life. H. T. Babbitt was desirous of making a toilet soap perfectly pure and good, something that should not cover up evil and disease under the mark of fragrance. Result: his Toilet Soap, which for every excellence reaches about as far as chemical art can go.—*Adv.*

—See advertisement of Land-Locked Salmon Spawm in this week's issue.—*Adv.*

Woodland, Farm and Garden.

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, SEC. N. Y. HORTICULTURAL SOCIETY.

ENGLISH NAMES OF WILD FLOWERS AND PLANTS.\*

(Continued.)

THE medical beliefs revealed by many names are not less curious than their legendary associations. It was the opinion of the old herbalists or simplers that God had not only provided special plants as a cure for every disease, but had made their curative power evident by stamping them with some resemblance to the malady they were meant to heal; and this faith, known to students of our older botany as the "Doctrine of Signatures," lurks or reveals itself in many an English name. The Lung-wort, spotted with tubercular scars, was a heal for consumption; the Liver-wort, liver-shaped in its green fructification, was a specific for bilious maladies; the scaly pappus of the Scabious for cutaneous eruptions; the throat-like corolla of the Throat-wort, or Canterbury Bell, caused it to be administered for bronchitis; the Saxifrage, cleaving the hard stones with its penetrating fibres, was efficient against calculus; the Scorpion grass, now known as the Forget-me-Not, whose flower-spike dimly resembles a scorpion's tail, was an antidote to the sting of that or other venomous creatures; the Moon-daisy averted wozaney; the Birth-wort, Kidney-Vetch, Nipple-wort, Spleen Ingrt, were all appropriated, as their names suggest, accord-or to resemblances, real or fancied. The pretty Poad-flax of Bell walls and hedges owes its name to a strange mistake, conceived to be the cure for a complaint called buboes, it is and id the Latin name *bulonium*. A confusion between *bubo* and *bufo*, which is Latin for a toad, gave birth to its present name; and stories were not long wanting that sick or wounded toads had been seen to eat of it and to recover health.

Similar distortions occur in non-medical names, and it is most curious to notice how soon a story springs up, or a belief asserts itself in confirmation of the mistaken identity. The common Tumulory, which we have already noticed, received its name of *fume-terre*, "earth smoke," from its causing the eyes to smart and water when applied to them, as smoke does. The meaning was lost as time went on, and was supplied by the belief that it was produced without seed by smoke or vapor rising from the earth. Buttercup was said to give color and flavor to butter, as being eaten by cows when in blossom, the facts being that it is a corruption of *bouton-cop*, bouton-head, and that cows eat the grass all round it, but always, if possible, avoid it. Meadow-sweet is a corruption of *Meed-wort*, honey-wine plant, a beverage being still extracted from it by cottagers. Bull-rush is Fool-rush, as growing in pools, not in mud; Snap-dragon is Snout-dragon from its shape; Marigold is Marsh-gold; Sweet-William is *aille*, a little eye; Pink is the lower German *Pinksen*, Pentecost, from its flowering at Whitsuntide, the name being transferred first to the color of the flower, then to a method of working flowers on muslin, called pinking; and so to the worst stab in a duel, piercing or pinking an adversary as the needle pierced the cambric. Nighthade is *nicht-sada*, soother or anodyne; Samphire is St. Pierre, from its love of rocks; Sanicle is St. Nicholas, the restorer of the three murdered children, from its healing powers; Poplar comes from the Indian *Popul*, whose leaves when varnished and painted closely resemble those of the large Spanish Poplar; Primrose was anciently the Daisy; and is called by the Chaucer Prim-rose, from the old French *Primerose*, the first spring flower; Primrose was changed to Primrolles, then to Primrose, the first Rose of spring; and it was not till the sixteenth century that it attached itself to the familiar flower which now bears its name. Cowslip is more strange still. It was originally "hose-flap," and belonged to the Mullein, whose great flannel leaf might well be likened to the flap or skirt of a woolen under-garment. Later on it was transferred to the wild Primula of our meadows, and the mistake was stereotyped by the unlucky botanist, who, in ignorance of its origin, gave the name of Oxlin to its pretty congener, the Primula elatior The Jerusalem Artichoke is a Sun-flower, not an Artichoke; but the tubers resemble the Artichoke in flavor. From its Italian name, *girasole*, turn to the sun, came Jerusalem; and by a further quibble the soup made of it is called Palestine soup. The Forget-me-Not was originally the "Germander Speedwell," whose blossoms, falling off and flying away as soon as it is plucked, gave emblematic force to the name. It was known in the days of chivalry as the "flower of sovereignty," and was embroidered into the collars of the knights, a fact still recalled by its German name, *Elevenperts*, Prize of Honor. About 200 years ago we find the name given to the Ground Pine, *Ajuga Champpitya*, whose nauseous taste once realized can never be forgotten. Finally it was seized upon by the river-side, Myosotis, and forthwith sprung up a charming legend, created obviously to suit its latest identification—how that while two lovers loitered by a lake, the maiden saw and longed for the bright blue flowers, the knight plunged in to get them, but, unable to regain the shore, had yet agility enough to fling them into his lady's lap, and then, with a last devoted look and the words "forget me not," sank below the waves forever.

Many names of plants contain the geography of their origin. The Canterbury Bell is obvious, so is the Guelder Rose. The Alexanders, a rare point round Taunton, but growing in great quantities at Blue Anchor, comes from Alexandria; the Candy-tuft from Candia, the Elecampane from Campania, the Medick from Media, the Carraway from Caria, the Walnut or Welsh Nut from the north of Italy, called *Walsh* by the Germans. Peach is *Persicus*; Shallot, *Ascalonicus*; Spinach, *Hispanicus*; the Damson, rightly spelt as *Damasene*, tells its own tale, which is less clear in the case of the Dame's or Damasene Violet, a corruption extended and perpetuated, as often happens, by its Latin equivalent, *matronalis*.—*Nature*. (To be continued.)

SOUTH CAROLINA CUCUMBERS.—A Massachusetts gentleman—not a politician—who is now residing in Columbia, S. O., owns a plantation near Port Royal, of which he writes to the editor of this paper, privately, as follows:

I think, as you seem to, that it is strange everybody passes

\* Lecture by Rev. W. Tuckwell before the Somersetshire Archaeological and Natural History S.



HYDROPHOBIA.

WE mention it with regret, since mental epidemics may be catching, that in England the alarm in regard to hydrophobia is on the increase. Even that greatest of all journals, the London Times, has devoted a lengthy editorial to this subject. The endeavor was made to assimilate, at least in the effects, the local disorders caused by hydrophobia, with tetanus. The Times has little or no faith in cautery. The Times lays great stress on a method of treatment depending on the use of curare, and cites a case of positive hydrophobia cured by Dr. Offenburg, at Munster, in Westphalia, by this new agent. It is proper to notice that curare is a terrible drug to handle, being one of the most violent poisons known. The article in the Times concludes as follows: "It seems incumbent upon medical men, to whom the opportunity is afforded, to make a fair trial of a plan of treatment which rests upon a rational and scientific basis, and which has, so far as this single case is concerned, already been justified by success." As to curare, it has the property of taking away muscular action, and the supposition is that it is this muscular movement, these spasms, often repeated, under which the unfortunate succumbs.

We think it our duty to give the account of the alleged cure in its fullest details—we would even like this most important matter to have the fullest publicity.

The following account of the cure of a case of genuine hydrophobia by the administration of curare or wourali (the Indian arrow-poison) will no doubt interest your readers, as it shows that this disease may prove less fatal than has hitherto been believed. The use of curare has been recommended by both English and foreign physicians, but no published account has hitherto appeared of its successful administration. The following is extracted from a treatise by Dr. Offenburg, who treated the case at Munster, in Westphalia. On the 23d of July, 1874, a peasant girl, aged 24, was bitten on the foot by a rabid dog. Several dogs had been previously destroyed in the neighborhood, and a farmer had died of hydrophobia at the adjoining farm. The wound became gradually worse, and refused to heal, and she was therefore admitted on the 8th of October to the Franciscan Hospital. Favorable progress was made during the first week, but at 8 p. m. on the 16th, the usual symptoms of hydrophobia suddenly appeared. Convulsive spasms of the throat and chest, contractions of the muscles, restlessness, mental terror, increased every minute, and were soon followed by antipathy to light and to water, the sight of which produced violent convulsions. Morphine and chloroform having been given without result, a subcutaneous injection of three centigrammes of curare was made at 10:45 p. m. in to the arm, and during the next four and a half hours five more injections were made, the quantity varying from two to three centigrammes. After the second injection the spasms began to diminish, and to appear at longer intervals, and the terror and mental anxiety were succeeded by loquacious cheerfulness. At 3:20 a. m. the first symptom of paralysis appeared, and on two occasions a spasm was followed by complete cessation of respiration, which was quickly restored by compression of the abdomen. The spasms continued to diminish, while the paralysis of the muscles increased, and movement and speech became extremely difficult. But after 7:30 a. m. these symptoms became less intense, and the patient was able to quench her thirst without pain or ill results. The improvement continued during the day, headache and great weakness being the most marked symptoms. On the 18th some slight return of spasm induced the administration of three centigrammes of curare as a measure of precaution, and after this the recovery was rapid and uninterrupted. On the 24th the patient ate some bread and milk, and enjoyed good sleep; on the 27th the headache finally disappeared; and on the 3d of December, the wound having completely healed, she returned to her home. When visited on the 19th, she merely complained of slight weakness and a dislike to very strong light. The above case seems to prove that curare must be employed in paralyzing quantities to insure a good result. It seems probably that after inoculation with the poison of rabies a certain organic substance is developed, which rapidly produces its dreadful effects on the nervous system, and as rapidly disappears, either by expulsion or by transformation, into innocuous substances. Curare arrests and paralyzes for a time the action of the poison, and during this period the expulsion or transformation alluded to is effected. Its use cannot be too strongly recommended; there is nothing to lose and everything to be gained, and in the above case at any rate it proved completely successful.

SUGGESTIONS AS TO CLASSIFICATIONS AT BENCH SHOWS.

EDITOR FOREST AND STREAM: NEW YORK, Nov. 26, 1876.  
I beg to offer you certain suggestions in regard to classifications of dogs at bench shows, which may be worthy of consideration. My own opinion is that where classes are formed for imported dogs, they should be open only to such animals as are imported, and that all dogs bred in America and whelped here should compete in native classes. This will soon bring out the fact and dispose of the vexatiously disputed question as to whether the importation of setters is an improvement or the contrary, by bringing the produce of importers into direct competition with the natives. Of course a dog bred on the other side and imported *in utero* is an importation and should be so regarded. I never knew why Class 9 in the W. K. catalogue (black and tan, or black, white and tan Gordon setters, either native or imported) was made to differ so radically from 5 and 7 (Class 5—Imported English setters or their progeny of the first generation. Class 7—Imported red, or red and white setters, or their progeny of the first generation.) With a few sensible alterations the classification of that catalogue will be as good as can anywhere be found.

Y. A. R.  
[The suggestions made by our correspondent we think well worthy of attention, especially as they proceed from a gentleman whose experience in regard to bench shows and field trials is second to none in the country. There is no reason why dogs bred in America, whose stock is imported, should not to-day compete with native classes. If a few years ago, a distinction might have been made; at present, such differences no longer exist.—Ed.]

PLUNKET, RANGER AND RUFUS.—Mr. Geo. S. Fowler, of Fort Wayne, Indiana, has a Nellie-and-Ranger bitch, dropped

- Class 20.—Fox Hounds—For the best couple, \$20; for the second best couple, \$10.
- Class 21.—Beagles, Dogs and Bitches—For the best dog, \$20; for the second best dog, \$10; for the best bitch, \$20; for the second best bitch, \$10.
- Class 22.—Dachshunds, Dogs or Bitches—For the best dog or bitch, \$20; for the second best dog or bitch, \$10.
- Class 23.—English Greyhounds, Dogs or Bitches—For the best dog or bitch, \$20; for the second best dog or bitch, \$10.
- Class 24.—Scottish Deer Hounds, Dogs or Bitches—For the best dog or bitch, \$20; for the second best dog or bitch, \$10.
- Class 25.—Terriers, Dogs and Bitches—For the best dog, \$20; for the second best dog, \$10; for the best bitch, \$20; for the second best bitch, \$10.
- Class 26.—English Setters—For the best dog, imported or native to be shown with not less than two of his get, \$25; for the best bitch imported or native, to be shown with not less than two of her progeny, \$25.
- Class 27.—Irish Setters—For the best dog, imported or native, to be shown with not less than two of his get, \$25; for the best bitch, imported or native, to be shown with not less than two of her progeny, \$25.
- Class 28.—Gordon Black-and-Tan or Black, White and Tan Setters—For the best dog, imported or native, to be shown with not less than two of his get, \$25; for the best bitch, imported or native to be shown with not less than two of her progeny, \$25.
- Class 29.—Pointers—For the best dog, imported or native, to be shown with not less than two of his get, \$25; for the best bitch, imported or native, to be shown with not less than two of her progeny, \$25.
- Class 30.—English Setters—For the best kennel, imported or native, to consist of not less than five, and to be owned by the exhibitor, \$100.
- Class 31.—Irish Setters—For the best kennel, imported or native, to consist of not less than five, and to be owned by the exhibitor, \$100.
- Class 32.—Gordon, or Black and Tan, or Black White and Tan Setters—For the best kennel, imported or native, to consist of not less than five, and to be owned by the exhibitor, \$100.
- Class 33.—Pointers—For the best kennel, imported or native, to consist of not less than five, and to be owned by the exhibitor, \$100.
- Class 34.—Black-and-Tan Terriers (large size), Dogs or Bitches, exceeding 13 lbs.—For the best dog or bitch, \$10; for the second best dog or bitch, \$5.
- Class 44.—Black-and-Tan Terriers (small size), Dogs or Bitches, not exceeding 13 pounds.—For the best dog or bitch, \$10; for the second best dog or bitch, \$5.
- Class 45.—Skeje Terriers, Dogs or Bitches—For the best dog or bitch, \$15; second best, dog or bitch, \$10.
- Class 46.—Yorkshire Terriers, Dogs or Bitches—For the best dog or bitch, \$15; for the second best dog or bitch, \$10.
- Class 47.—Dandie Dimont Terriers, Dogs or Bitches—For the best dog or bitch, \$10; for the second best dog or bitch, \$5.
- Class 48.—Scottish Terriers, Dogs or Bitches—For the best dog or bitch, \$15; for the second best dog or bitch, \$10.
- Class 49.—Long Hair or Silk Hair Terriers, Dogs or Bitches, not exceeding 5 pounds.—For the best dog or bitch, \$15; for the second best dog or bitch, \$10.
- Class 50.—Pugs, Dogs or Bitches—For the best dog or bitch, \$10; for the second best dog or bitch, \$5.
- Class 51.—Italian Greyhounds, Dogs or Bitches—For the best dog or bitch, \$10; for the second best dog or bitch, \$5.
- Class 52.—For the Largest Dog exhibited, \$10.
- Class 53.—For the Smallest Dog exhibited, \$10.
- Class 55.—Miscellaneous, Dogs or Bitches—For the best dog or bitch, \$10; for the second best dog or bitch, \$5.

HINTS ON DOG BREAKING.

TO become a good dog trainer a man must be at all times and under all circumstances cool and collected. No passionate man need ever lay the flattering unction to his soul that he is capable of giving a puppy a polite field education. A man to make a good trainer should have a firm nature, giving his *protége* at once confidence, affection and implicit obedience. He should also have an abiding faith in his success. Should I fail to-day I will succeed to-morrow. Don't get fretted; you must have a miserable cur if he can't tell when you are mad. If you do not possess these qualifications and your means are adequate, take my advice and send your puppy to a first-class breaker. Those who have not the means and opportunity to give their puppies to a breaker will allow me in a spirit of meekness to extend to them my experience and observations:

First, get you a well-bred puppy, for blood will tell on some part of the course. Nothing, not even the finest training, can ever compensate for bad blood. If possible have an old and well-trained dog to break your puppies with. Never teach him anything you do not think will be of value to him on the field. Talk as little as possible to your dog; teach him to do your bidding by the motion of your hand. Never teach your dog anything by word that you can teach him by signs. In teaching your puppy to "down" never tell your puppy to "charge" or "down charge." No man ever attempted a greater nuisance with a decent dog. Any dog of moderate intelligence know that in the ordinary parlance of life, "charge" does not mean lie down. Tell him to "down" and motion him down with your hand, and make him do it. In a few days he will understand you; then from that day thenceforth and forever motion him down and make him obey you. When you have taught your puppy to down, your next and very important lesson is to teach him to flush his game when commanded. My first lessons in this respect are given puppies over their feed. Make your puppy down by a simple motion of the hand, and when down make him remain until you tell him to "Go," a short and simple word, and one easily carried by a dog, especially when food is the incentive to action. The first time he makes game allow him to stand, say ten or fifteen minutes, then tell him to "Go"—and you

will have, nine times out of ten, the pleasure of seeing him stand as still as a stone. Don't abuse him. This will teach him to be staunch. As he grows older, should he turn a deaf ear to your entreaty, resort to the whip. When on a point command him to Go, and should he refuse, follow at once with a crack of the whip, this will effectually break him of this evil way. To teach a dog to retrieve, and to do it well, is one of the most important parts of his education. Take him in one of his playful moods an hour or so after a light meal and, with an old leather glove, a few evenings work will teach him to retrieve and to do it well. Never whip a dog for not retrieving, and always caress him when well done, and it will soon become a pleasure to him. If a shot has proved ineffective I tell him "Lost," and mean just what I say. With a little training any dog of moderate brains will soon learn what is wanted, and do it. If I want my dog to be steady, I raise my hand and shake it. This is one of the easiest signs learned by a dog, and once learned never forgotten. If I want my dog to hunt certain ground, I motion him there. This power of motioning a dog when you want him is almost indispensable in working dogs in braces, and is one part of a field education that no dog should ever be without; and it is remarkable how quick a well-trained dog catches any sign from his breaker when once trained to obey them. I once knew a pointer who was so well trained in this respect that when his breaker would get down and crawl up to game the dog would crawl along on the ground, and when his breaker would get up he would do likewise. If crossing a fence a single motion of the hand would stop him there. Most good breakers of the present day train their hounds to drop to shot, and with the vast majority of men who handle dogs this is undoubtedly the best. I far prefer having a dog trained to stand "firm as a rock of castle roof," no matter if a bird is fluttering within three feet of his nose.

This, if properly learned, is the crowning part of a dog's education, and the noblest part of his field performance. I once owned a dog whose education in this respect was perfect, and many, many times have I seen him work down a covey with a precision that was not excelled by any human being, and at a motion from the hand he would raise his head and trot straight to a point. I do not think I would advise novices to try to teach a dog to stand. It is the hardest lesson of a dog's life to learn to stand on all occasions, and his breaker must remain as cool and impassioned as an iceberg to keep his dog from falling from grace. Backing is one of the easiest portions of a dog's education, and you might justly say natural. I never owned a well-bred dog from trained parents that would not back intuitively. Hence, in this you have only to teach your puppy to stick to first principles. **LOTHAIR.**  
*New Albany, Miss., Nov., 1877.*

MOUthing BIRDS.

EDITOR FOREST AND STREAM: LE ROY, Nov. 19, 1877.  
Three of us were out shooting ruffed grouse on Saturday last. Our success had been poor, and we drove to a small piece of woods where we hoped to find birds plenty. My dog, a setter, found several, but we all missed them. Upon getting within ten feet of a large stump my dog came to a fine point, and as we were coming slowly up he suddenly made a spring behind the stump. Hearing a fluttering I called very sharply to him, and he appeared, bringing a grouse in his mouth. The bird made a great noise, and he was obliged to put it down three times before he could put it into my hand. The bird was perfectly sound and strong and would have flown away immediately if it had been free. I never knew my dog to do anything like it before, and he did not attempt it again. Possibly he thought if none of us could shoot one he would catch one. Have you ever known of a similar instance, and should I have punished my dog for it? As it was I paid no attention to him at all. Yours, **OSAKA.**

[It is quite probable that the bird had been body shot by some other party shooting in the vicinity, and had flown over into your neighborhood; in which case the dog felt justified in retrieving a wounded bird. If a similar circumstance should occur again, we should incline to the opinion that the bird was a close-liner, and that the dog was to blame for running in and standing on his point. A suitable punishment should then be given, especially if he is a young dog and pliant in his disposition. We have occasionally seen ruffed grouse lie so close that it was necessary to kick them up out of their cover. This habit is more common with the grouse of the prairies; but when snow is on the ground the ruffed grouse burrow under it, so that they are completely hidden, and it is often impossible to get them up at all.—Ed.]

FIELD TRAINING.

NEWARK, N. J., Nov. 27, 1877.  
Mr. Editor—In perusing the last issue of the FOREST AND STREAM AND GUN my attention was attracted to your complimentary reference to Mr. Wannaker and his commendatory efforts at dog-breaking and training, but more especially at the point made under the following remark: "As far as we know Mr. Wannaker is the only dog-breaker in the country who takes his pupils in game countries for practical instruction and a varied course of study." Feeling assured that your intentions are to encourage all such efforts, and that the same remaining unnoticed may do injustice to others of this class of gentry, I deem it desirable to say that Mr. T. D. Gladstone, of Bonton, N. J., known as the successful breaker of gun-shy dogs, has for a number of years past adopted this same method of taking his dogs into game countries for more thorough and complete instruction, and frequently at very considerable expense. Early in the fall of 1874 he took all of his dogs under his charge (one of my own among the number) to Iowa, remaining there, as is his custom in such places, as long as the season will permit of shooting. In the fall of '75 he took his dogs to Delaware and Maryland. In 1876 he went to Virginia with fourteen dogs, remaining there until spring. At the present moment this same gentleman is in Illinois with only ten dogs, one each of Messrs. Charles and Jeremiah, of Albany, and the red Irish setter Guy, by Rufus, the property of the Westminster Kennel Club, and a dog of the writer, intending to remain until the season closes for shooting. You will observe, therefore, that Mr. G. is another exception to the general rule, and also worthy of similar commendation for the efforts put forth to produce results so desirable to the sporting community. Yours, etc., **JERSEY.**

[Mr. Demarest will please accept our thanks for the information given, which we publish with pleasure.—Ed. F. & S.]  
POSE IN POINTING.—Editor Forest and Stream—Permit me to inquire if there are any "right-handed" dogs? Does a dog ever raise his right foot when he stands on a point? If not, why not?  
**CURACOA.**







A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INFLUENCE ON MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.

[POST OFFICE BOX 283.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, NOVEMBER 29, 1877.

### To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts. Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

### THANKSGIVING.

AS wanes the year, and days grow short and shorter, and great gales at sea proclaim the advent of blustering winter, there comes a time of peace and rest, at least for men's hearts and souls, and so may the turmoil of the elements be forgotten. Some little moral one usually looks for at this season of Thanksgiving. To all our kind friends we wish happiness and good cheer on this occasion. But above all, charity. And those who, with gleeful hearts, visit once more the homes of their childhood, and around the ruddy hearth grasp again the hands of fathers and mothers, let them remember those who have no homes, and, by good words and actions, give to such not so blessed a tithing of what they have. Then will Thanksgiving not only be remembered for the comforts the body may receive, but the heart be rejoiced, for the consciousness of having performed some slight act of true grace "delighteth forever."

A DIVIDED JUDGMENT ON THE FISHERY QUESTION.—The question of the differences between the Commissioners representing the interests of the United States and the Dominion, on the fishery question, has resulted, in the opinion of two of the judges, that the United States are to pay \$5,500,000. The arbitrators were Sir A. T. Galt for Canada, Judge Kellogg for the United States, with M. Delfosse, the Belgian Minister at Washington, as President. The decision was not unanimous, Judge Kellogg dissenting. As it is with this judgment, if it be carried out, it will not give much satisfaction to either party. The Canadians are said to have been looking for ten millions of dollars, while the United States thought a few hundred thousands would do. Recalling the subject to our readers, they may remember that General Grant, in 1870, called attention to the fact of certain unfriendly proceedings of the Canadian authorities. The great difficulty in a discussion of this character, we suppose, was to get at anything like the quantity or direct value of the fish caught, or to make a balance between a debit and credit account.

We have been waiting for sometime to have this judgment which grew out of the High Joint Commission. If we remember rightly, it was understood that an unanimous decision of the arbitrators would be necessary in order to be binding.

### OUR CENTENNIAL AWARD.

WHEN space was allotted to the army of exhibitors at the great Centennial Exposition in Philadelphia, we applied for and secured an area of 1,200 superficial feet, where in we proposed to display all the apparatus and paraphernalia in use by sportsmen and professional fishermen and hunters, including guns, ammunition, nets, boats, clothing, fishing tackle, etc. When we had already made great progress in the collection of the materials, one of our friends alone, Mr. John A. Nichols, of Syracuse, having contributed about \$5,000 in value, we were induced to unite our efforts with those of the Smithsonian Institution, and to merge our small collection into their larger one, the Institution at Washington having already on hand within its walls a vast quantity of material applicable to it, and greater facilities than ours for adding to and making the collection complete. Of course any direct credit or *et al* that FOREST AND STREAM as an individual exhibitor, could secure was lost to it for the time being. So also, as to the efforts of Prof. Baird and others, who were foremost in the enterprise. The exhibit appeared simply as a Government exhibit, a great portion of which it was understood was to be permanent at the Smithsonian buildings in Washington, after the Centennial affair was over. Visitors will undoubtedly recall it to mind, occupying as it did one entire angle of the great building.

Besides our indoor collection, we had erected a complete Hunter's Camp upon a picturesque spot on the grounds which was kindly allotted to us by the Centennial Commission, in which other devices and appliances of the old time hunter were more practically shown. This old log cabin attracted a great deal of attention, and thousands of names of visitors were placed upon its register. It was subsequently donated to the Fairmount Park by the proprietors of FOREST AND STREAM, and became one of the fixtures of the park.

Well, we were about to say—that although our unique and acceptable contributors received no official recognition at the time of exhibition, they have nevertheless not been forgotten and we have now received not only a diploma from the Commission, but a bronze medal as awards for our efforts. We are proud of these and shall carefully cherish them as souvenirs of the occasion. Below we append a faithful transcript of the medal, and a copy of the inscription of the diploma:



### INTERNATIONAL EXHIBITION, 1876.

#### CERTIFICATE OF AWARD.

FOREST AND STREAM PUBLISHING COMPANY, NEW YORK.

COLLECTIVE EXHIBIT OF FISHING AND HUNTING IMPLEMENTS.

No. 12—Group XXIII.

UNITED STATES CENTENNIAL COMMISSION,

In accordance with the Act of Congress, Philadelphia, Sept. 27, 1876.

[L. S.] JOHN L. CAMPBELL, Secretary. A. F. GOSHORN, Director General. JAS. R. HAWLEY, President.

FOR TOURIST'S REGISTER.—We have received the following applications:

PHILADELPHIA.  
*Gentlemen:* A mineralogist proposes to go to Sanford, on Lake Monroe, Fla., about the middle of January, and would like to join a party of not more than six to charter a boat for a sporting trip. Unexceptional references given and required.

STEPHEN'S PATENT COMBINATION RULE.—This is no gimcrack tool. Messrs. Stephens & Co. are known all over the country as manufacturers of the standard rules. This peculiar tool combines within itself a carpenter's rule, a spirit level, square, plumb, bevel, indicator, brass scale, draughting scale, T square, protractor, right angle triangle, and with a straight edge it can be used as a parallel ruler. Riflemen will find this rule invaluable, as by its use elevations can be studied and absolutely noted. A great many of our leading riflemen use this rule with its spirit level in studying the capabilities of their arms. To the surveyor this rule is perfectly adapted to the laying of angles. Lumbermen by its use can determine in the woods the height of trees and determine how much clear timber a tree will furnish. This rule is well and solidly made, and we can recommend it every way. The manufacturers are Messrs. Stephens & Co., of Riverton, Conn.

HENRY WATTERSON.—A large audience, comprising many of New York's most prominent citizens and *littérateurs*, gathered in Chickering Hall one evening last week to listen to a brilliant lecture by the well-known editor of the Louisville *Courier-Journal*. The speaker's theme was the "Comicalities of Southern Life," an able portrayal of Southern humor. Mr. Watterson found also opportunity for many serious and thoughtful words of deeper import.

PERSONAL.—We have received a visit from Edward Hodder, Esq., a gentleman well known for his prowess with the rod and gun. Mr. Hodder, who is now returning to his home in Ireland, is familiar with the game of our country, having spent several years in the Territories. Mr. Hodder informs us of good sport on the St. Clair's flats, having in three weeks killed some 100 ducks, 200 quail, 85 partridges, beside woodcock and snipe. He reports the ducks in good quantity. In Ireland Mr. Hodder, in company with Mr. Sandford, of the *Cork Constitution*, fish in the Blackwater, having leased a portion of this river. Though the salmon do not run as large in the Blackwater as in the Shannon, the fish are very fine. Mr. Hodder has very kindly promised to give us some accounts of his fishing and shooting in Ireland, which will doubtless be interesting to our readers.

NATURE'S WEAR AND TEAR.—We have the information that more of the Niagara rock fell last week, changing the shape of the Horseshoe Fall, to a right angle, so that the well-known symmetrical curve, with its brilliant emerald hues, which has furnished so many studies for the artist, no longer exists except on historical canvas. The rocks in the centre and sides have been crumbling away from year to year so rapidly that even within the memory of the present generation the entire contour of the falls has been changed, especially in the centre and on the Canadian side. Table Rock and the ledge on which the old tower stood are no more. The actual recession of the cliff or ledge over which the great sheet of water falls amounts to several rods; and it does not therefore require much geological research or mathematical figuring to determine at what remote period the emerald curtain which Goat Island now divides fell into Lake Ontario in one great unbroken sheet at the mouth of what is now the Niagara river.

St. AUGUSTINE TIENCE TO NASSAU.—We would call attention to the departure of the fine steamer San Jacinto, which will leave Pier 10, East River, on December 8, for St. Augustine, Florida, thence for Nassau on the 13th. The accommodations on this line are unsurpassed, and this route affords an excellent opportunity to reach all points on the St. John's River. The agents, Messrs. Murray Ferris & Co., No. 68 South street, will give full information on all subjects interesting to tourists, sportsmen and invalids. Nassau is considered a very healthy winter resort, and is much sought by invalids with bronchial troubles.

—The Mayor, President of the Board of Health and City Physician of Jacksonville announce that there is now no yellow fever or other contagious disease in that city or vicinity, nor has there been for two weeks.

—Professor E. S. Morsc, of Salem, Mass., the distinguished naturalist, brings back from Japan many remarkable results of his scientific investigations, both in embryology and in the examination of ancient mounds revealing traces of prehistoric human life.

## VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.—No. 7.

BY THE EDITOR.

NOVEMBER 20, 1877.

BRETHREN: Because to-day is appointed Thanksgiving it is no proof that Turkey is to be taken. Were I in Florida, in the hammock back of Enterprise, about daylight in the morning, my gun might offer more positive testimony, and a full report thereof follow in the columns of FOREST AND STREAM. But my story is now of Michigan, and I therefore continue it from where I dropped it last week.

Let me see: we had visited Pine Lake and its adjacent waters, which we reached by a channel communicating with Lake Michigan at Charlevoix. In outlining the fluvial geography of the northern part of the State, I have been particular to show that it embraces an interior system of lakes and rivers, large and small, divided into separate groups or chains, each having its outlet into Lake Huron or Michigan. From those large bodies of water the interior system is separated by a narrow, circumscribing strip of high land. It is in reality a great basin in which, if full, the crests of the dividing ridges that separate the chains of lakes would appear as islands. This basin we would enter by the inlets so often referred to, one of which is at Cheboygan, another at Petoskey, a third at Charlevoix, a fourth at Torch Lake, and a fifth at Elk Rapids. The outside steamer makes the grand circuit of the Michigan peninsula and touches at each of these points connecting there with the smaller inland steamers. The first three we have visited. We are now supposed to be on board of the Van Raalte again, *en route* for the fourth at Torch Lake. The voyage offers no features of especial interest to the tourist, as most of it is made at a considerable distance from the land. There is no boundary to the seaward side, for the haze that rests on the natural horizon blends the water and sky into one common blue, and the land that is only ninety miles beyond is as invisible and inappreciable as the sidereal worlds which we are told exist in the infinite distances of unmeasured space. We have only the circling gulls to watch, and the listless sails of many three-masted schooners and brigantines drooping in the glassy atmosphere of a dead calm. The sky is hot and coppery, and the motion of the boat affords the only relief to the oppressive heat, which it scarcely modifies. When we reach "The Torch" (as the landing is locally designated) and come to a full stop, the heat is consuming. There is a funnel cut for the passage of a horse railroad track through the sandy ridge which separates the two lakes, and here the solar rays concentrate and broil the unhappy traveler until the atmosphere of Tophet becomes ethereal mildness in comparison. Fortunately the distance is but half a mile, and when one finally reaches the grateful shade of the eastern piazza of the "Lewis House," and gazes out over the spreading lawn upon the unrippled surface of the far reaching lake, he forgets that he ever suffered, and is willing to live on to run the risk of repeated broils hereafter.

The visitor is scarcely prepared for the luxurious civilization which he finds at this popular resort—the sweeping carriage drives, the lawns, the fruit trees, the rookeries and beds of flowers, the detached cottages for guests, the large, well-furnished rooms, the wholesome, abundant table, and the pervading sense of home-life and comfort. The main structure is a large, central edifice, with wings, standing on level ground which slopes to the lake side. From its cupola there is an extended outlook over the lake, which is a beautiful sheet of water eighteen miles long, ranging from two to three in width. Circumvallent hills inclose it; its shore-lines sweep into graceful curves; high points of woodland diversify its contour and hob-nob from opposite sides; its waters are clear as crystal; the stars and fleecy clouds gaze into it, summer zephyrs fan it; festive bass and precocious pike disport therein, and all the elements and nymphs of the water toy with it tenderly as chosen mistress—"Queen of the Lakes." I was told that it contained no fish, but experiment presently revealed a five-pound bass, which came to the minnow of a Louisville friend, whose common sense directed him where to fish. I am amazed at the prevailing ignorance among tourists of the first principles of angling. Rods have they, but they angle not; they have lines and reels, but they retrieve not; they pay the piper but do not dance. I am certain that if amateur fishermen would only study natural objects, and use their judgment in angling as they do in the ordinary pursuits of life, they would have less complaints to make of bad luck, depleted waters and empty creels. Gunners do not hunt ducks on the mountains, or rabbits among the reeds of a marsh; neither do they look for turkeys by the sea-side, or ruffed grouse upon the plains. They shoot not quail with bullets, neither do they hunt antelope with a shotgun, or run buffalo with hounds. Why, then, should they fish for bass and trout in places where they are not, or tempt their fastidious tastes with strange devices which satisfy not? Most fish lie near to shore, because the minnows, small fry, and creatures that inhabit the water congregate there; and, where food is, there do the fish throng. Yet novices generally seek the centres of lakes, where the water is often forty fathoms in depth, and hope for luck in trolling, and success in skittering the spoon and frog. In hottest weather, when fish seek the coolest depths, they must be reached by deep lines and proper methods, which have been repeatedly taught your readers through the columns of FOREST AND STREAM, since the first number of its beginning, and are especially set forth in the "Sportsman's Gazetteer." So, also, in trout

streams, when the speckled denizens gather about the spring-holes, we may hardly expect to tempt them with a fly upon the surface. One may find it for granted that there are fish in all the waters of Michigan that are suitable for their health and growth. Let him put no trust in assurances that fish are not to be caught in this lake or that, but put the question to the proof, *secundum artem*, as my friend Lord, State Military Inspector of Michigan, did in Burr Lake. He quietly tossed over his anchor-stone into a deep channel near the shore, where the weeds grow, and took sixty with minnow! And yet he was told that only pike inhabited Burr Lake.

The Lewis House is generally well patronized, for its reputation is wide. Its guests come chiefly from Kentucky, Indiana, Illinois, Missouri, Ohio and Michigan, as, indeed, do nearly all the visitors to this section. While I was in Michigan, I found only half a dozen Eastern names registered; there was one from Vermont, one from Boston, one from New Jersey, two from New York and two from Pennsylvania. This is the more remarkable, because two-thirds of the population of Michigan are of Eastern origin—chiefly from New York and New England. How much that is beautiful and enjoyable in nature is lost by those who decline to go West for recreation! Those who read my letters shall not plead ignorance hereafter. Very solid and substantial citizens do the Eastern men make who come here to settle: with all their disagreeable points and angles rounded off by contact and attrition with the rougher but more generous Western element; with their narrow local prejudices eliminated, scattered and lost on the unmeasured expanse of a domain so vast that a thousand acres scarcely give the individual settler elbow-room; engraving their fixed principles of social order upon the self-assertion and single-handed independence that has hewed its way through the roughnesses of the frontier; blending the amenities of a ripe civilization with an open generosity that is not measured by the roughness of its garb; tempering prodigality with shrewd business caution—in a word, combining the good qualities of both sections with an advantage that cannot be mistaken or ignored. I would not purposely speak in disparagement of either section, but I am convinced that out of a union of the two stocks is bred a hardier, worthier and better race of men.

When we were ready to leave our hospitable hotel, the fine steamer called the Queen of the Lakes awaited her passengers at the little pier. The water was deep and bold, and we could see the perch and shiners clustering around the piles in swarms. I was surprised to see so large a vessel on inland waters. She is of iron, very commodious, luxuriously equipped, and can carry three or four hundred passengers at least. She is owned by Dexter & Noble, a firm which has a blast furnace, mills and large stores at Elk Rapids, forty miles below. Steaming a few miles down the lake, and crossing to the eastern shore, she touched at a landing known as "Russell's," where a stage is in readiness to convey visitors to the Intermediate Lakes, where there is a rough, but comfortable home known as the "Island Camp." If the tourist desires, he can be dropped at the mouth of Clam Lake, flowing into the east side of Torch Lake. Passing up Clam Lake, he will presently come to a "narrows" leading into Grass Lake, which is joined to Intermediate Lake by Grass River, a stream affording fine fishing. Continuing down Torch Lake to its lower end, our steamer enters Torch River, a crooked stream three miles long, with charming windings through the woods, and thence passes into Round Lake, a body of water about two miles in breadth by four in length. From Round Lake we pass into another connecting channel, called the Narrows, which leads to Elk Lake. Rapid River enters the Narrows about midway, and my comrade and I launched our Bond boat, and ascended it for several miles, taking a fine mess of trout with bait. Deer sign were not only abundant along its shores, but we had the satisfaction of overhauling a goodly buck, which had become mired in crossing the stream from a grassy island, where it had been feeding. A large deposit of weeds and silt, fully three feet in depth, had accumulated along the bank, and locomotion through it was anything but easy. Although we laced in our utmost endeavors to push our boat through this, the deer surmounted it with many a gallant plunge, and escaped to the woods. Meanwhile our loaded Scott gun lay peacefully in the bow, and offered the creature no harm, as the season for shooting was not yet open. At evening a tug took us by appointment down through Elk Lake to Elk Rapids, but not until we had been thoroughly drenched by a passing shower. This shower, though unpleasant to us, was much needed to quench large fires which had got into the timber along the shores of Elk Lake, and also destroyed some orchards and farm buildings. When we passed the scene of conflagration, the red flames were still climbing the tall trunks of the resinous pines, shooting out their hot tongues, and shedding a lurid light upon the water. The outlet of Elk Lake extends for a mile, emptying into Lake Michigan, in what was once a series of rapids; but now flows over a dam which holds the water back for the mills as well as for the purposes of navigation. Bass fishing was formerly very good at the rapids, it is said, but we failed to raise any fish there.

The town of Elk Rapids chiefly occupies a wide avenue along the shore of the lake, and is supported by its blast furnace and mill. There are some brick stores, several fine residences, including those of the brothers Noble, and an excellent hotel kept by the Harsha Brothers. The Messrs. Noble have a steam yacht here which visitors can sometimes obtain, and a few days can be passed very pleasantly.

The day before I left there was a gale which drove the

waves of Lake Michigan against the breakwater with tremendous force. From the windows of my hotel I watched the surf leaping into the air and dashing itself into huge sheets of spray which the wind drove inshore for many a rod. Seaward, as far as the eye could reach, the surface of the lake was churned into foam, and the great billows came careering in one after another, and broke in tremendous surf against the sea wall and over the pier where several large vessels lay moored. Then I could almost realize the fierceness of the November storms which play such havoc with the shipping, and make wrecks of unfortunates driven ashore. At evening the storm abated and the waves calmed down, though the sea still ran high. Then I somewhat wondered to see a fleet of Indian canoes hoist their quilts and blankets for sails and bear away for the head of Grand Traverse Bay, now rising like corks upon the tops of the long swells, and anon sliding down into the hollows with a lurch that threatened to capsize them and spill out their precious loads of squaws, papooses, dogs, pots and garden vegetables with which they were freighted. But no mishap occurred, and these bold sons of the forest proved themselves good navigators. They had just visited Elk Rapids on one of their periodical trips after family supplies.

From Elk Rapids to Traverse City the interest of the journey is well sustained. A glance at a map will show that Grand Traverse Bay is bisected by a narrow peninsula or cape which the steamer has to double. Elk Rapids is on the eastern arm of the bay, and Traverse City on the western. A bee line from one place to the other would be less than one-fourth the distance around. The steamer first crosses the east arm from Elk Rapids to Mission Point, an old French missionary station where some of the finest fruit in Michigan is raised; then runs due north until she reaches the point of the dividing peninsula, which she gives a wide berth; and then changes her course to due south, and—to cut our journey and its story short—finally reaches Traverse City, a place of some 3,000 population and much local business. This, it will be remembered, is the terminus of the branch of the Grand Rapids and Indiana Railroad which diverges from the main line at Walloon. Darkness and quiet are upon the town when we arrive. A few glimmering street lamps reveal some substantial blocks of brick stores. Brilliant lights are gleaming from the many windows of a large hotel known as the Campbell House. Our omnibus carries us past all these, and apparently to the outskirts of the town, where we are deposited before a homelike house surrounded by gardens, and embosomed in trees, which we are told is to be our headquarters. This is the Traverse City Hotel, and is kept by Frank Lewis, who is also proprietor of the hotel at Torch Lake which we have recently left. We are made very comfortable for the night, and when we awake in the morning our eyes rest upon the sparkling waters of the Boardman River, which flows before our door. Here the angler ought to be content. I made no stay and can affirm nothing from my own experience. I may, therefore, be pardoned for quoting what our friend Page writes of the attractions of this vicinity:

"In the bay, muskallonge, lake trout, bass, pike and pickerel are very abundant. Cedar Lake three miles, Bass Lake eight miles, Betsie Lake twelve miles, Long Lake six miles, and Traverse Lake ten miles from Traverse City, are especially fine. Perhaps the best fishing with the spoon, outside the bay, is found in Carp Lake, eight miles northwest of Traverse City, reached by highway.

"Deep-water fishing is a variety of sport peculiar to this vicinity. Taking one hundred and fifty or two hundred feet of stout fishing line, and being properly provided with hooks, bait, etc., the sportsman, procuring a boat, proceeds to any part of the bay where the water is very deep, and lets down his line. Presently a siskiwit (the deep-water lake trout, a fish analogous to the Mackinac trout, but much finer in flavor and flesh), a Mackinac trout, or a huge muskallonge seizes the hook, and the sport begins. The fish are very gamey, and long before the quarry is safely landed in the bottom of the boat, the fisher will have obtained excitement enough to cause the adventure to be well remembered.

"Brook trout are very abundant in this vicinity. The Boardman, its branches, and all the streams in the neighborhood of Traverse City, contain brook trout. No stream is navigable except the Boardman, and that only for small boats. Current swift, but not too deep for wading; excellent sandy bottom. Parties desiring can find good camping grounds at the "Forks" of the river, State Road Bridge, Railroad Crossing near Mayfield town line, and Smith's Farm, all on the Boardman River. There are a few grayling in the Boardman, known by the local name of "Garpin." Besides the Boardman River, the various trout streams and ponds are Mitchell's Pond, distant three and one-half miles from Traverse City; Hoxie's, seven miles; Whitewater, nine miles; Scofield, twelve miles; Hannah's Mill Pond and Cr. ek. one half mile; Greilick, three miles; Belmer's Pond and Cr. ek. seven miles; also, the Racket, Joyton and Pine rivers, emptying into the Boardman, as well as many smaller streams. Stage fare to Hoxie's, \$1; to Whitewater, \$1.25; to Mitchell's, 50 cents. All other points reached by private conveyances. Guides charge \$2 per day; with boats, \$2.50 to \$4 per day; with team, \$4 to \$6 per day; boats only, 50 cents to \$2 per day."

Taking rail at Traverse City in the morning after breakfast, we reach Reed City at noon, where Brother Adams furnishes an excellent dinner for fifty cents. Here we can fish the River Hersey for grayling and be sure of a fair mess. The town is growing and prosperous, and boasts several fine streets, churches, brick stores and the like. All the country north of here affords the finest deer shooting, as much of it is almost a wilderness and but little hunted. There is a barbe in town, whose name I forget—a long subscriber of FOREST AND STREAM—who studies his gospel from its pages and then hies forth to preach and practice it upon the denizens of the forest, and he always brings back something besides locusts and wild honey. He showed me some trophies of his chase,

There are several good sportsmen in Reed City besides this shaver whom I had the good fortune to meet. Between Walton Junction and Reed City we cross the celebrated grayling streams called the Au Sable, Manistee and Muskegon. The first is Mr. Dan Fitzhugh's favorite stream. I have an invitation to spend a week with him on its waters, but have no time to do so; yet I shall not omit a flying trip to East Saginaw and Bay City, where he lives, the great lumber depots of Michigan. The Manistee river is easily reached from Walton Junction; and by taking the Flint & Pere Marquette road at Reed City we can fish the Muskegon at several points, as the railroad follows it for many miles and frequently crosses it. It will be perceived by reference to the map that this railroad crosses the State at right angles to the Grand Rapids and Indiana Railroad, thereby opening up quite a different part of the country and one much more settled than that which we have been visiting. There are more farms and less game. In the vicinity of East Saginaw some of the farms are greatly improved. The city itself is one of the most wealthy and enterprising in the west. Its private residences are elegant, its streets wide, its Bancroft House hard to beat by any hotel elsewhere, its sportsmen many—refined and influential, and its industrial pursuits various and remunerative. A dozen creeks and rivers concentrate at its very threshold to empty their tributes of lumber into its great manufactories. On the Saginaw River, between Saginaw City and Bay City, there are ninety-two saw-mills, which consume pine, hemlock and maple with a rapidity and fierceness worthy of Sawdum of old. Good dogs there are at Bay City, owned by worthy masters; their regard for each other is mutual and reciprocal. I know Judge Holmes has the finest kennel of deer and fox hounds that it has been my good fortune to see north of the traditional Mason and Dixon's line. The setter tribe is numerously represented among the fraternity. The Fitzhugh family, J. F. Hotchkiss, Judge Holmes, W. H. Estabrook, mine host Van Duzen, of the Frazer House, and other prominent gentlemen were assiduous in showing me the lions of the place—and the rest of the menagerie. To Van Duzen I am indebted for courtesies not anticipated. His house is a superior house in all respects, as indeed are the hotels throughout the State, so far as I have known them. I have repeatedly pressed this fact upon the attention of travellers, for I have never found so invariable good accommodation in any other State, whether in town or country.

Although I had spent nearly a month in Michigan, I regretted that my time was so limited. I was in greater haste to depart, because I wished to fish among the Superior rocks at Ashland, Wis., before the close season began on Sept. 1. So, accepting the courtesies of the Flint & Pere Marquette Railway (after having beaten one of its chief officers at euchre the night before), I set out for Grand Rapids, via Reed City. There I picked up my shooting kit, ate a parting porter-house with my friend Farnham Lyon, of the Morton House, and turned my face toward the Badger State, via Grand Haven and the Western Transportation Line of Steamers to Milwaukee. As the train followed the course of the beautiful Grand River into Grand Haven, I could trace in the pale moonlight the outlines of the sand dunes that the storms had piled in great mounds upon the shifting shores of Lake Michigan. The season was at its height, and the midnight hour had not wearied the festive dancers at the Cutler and Kirby, those fashionable watering places where the Michigan belles drink mineral water with the zest and natural effect that folks do at Saratoga and the Virginia Springs. The great steamer Amazon—larger than many an ocean steamer—lay quietly at her moorings in the placid river, with length so huge that she had apparently no room to turn. The freight was on board long since, and when the last rumble of the truck that trundled the midnight passengers' baggage between decks had ceased, all sounds were hushed. Noiselessly and imperceptibly the steamer got under way, and before we were aware that she moved, the lights on shore began to *chassez*; the ghostly sand dunes alongside waltzed and crossed over, and eclipsed the lights which seemed to dodge between; the still expanse of the broad lake loomed up ahead in an uncertain view; and the thin reek from the funnel reached out behind in a ribbon of vapor waving an adieu to the solitary watchman on shore, whose only care was now to turn in and rest from his protracted duties.

Pleasant Michigan! No innocent lamb ever fared better among "Wolverines" than I. HALLOCK.

**GAME PROTECTION.**

MICHIGAN.—Grand Rapids, Nov. 26.—The annual meeting of the Michigan State Sportsmen's Association will be held at the Potter House, Battle Creek, in that State, on Tuesday, February 5, 1878. Dr. E. S. Holmes, of Grand Rapids, the President of the association, has already invited several gentlemen to prepare essays on various subjects pertinent to the objects of the society, and the meeting will undoubtedly be of unusual interest. The association is composed of the various local clubs throughout the State. Several new clubs have been formed, and they or others can obtain any information with regard to the State Association from the Secretary, A. J. Holt, of Grand Rapids, Michigan.

Several gentlemen in Monmouth County, New Jersey, are about forming a club for the sole purpose of *stopping* certain parts of that county with quail, and their intention is to place some three hundred next spring.

THE VIRGINIA CONVENTION.—Explanatory of the failure of this convention which was to have convened at Richmond recently, we have received the subjoined letter from the President of the Virginia Fish and Game Protective Association:

EDITOR FOREST AND STREAM: RICHMOND, Va., Nov. 20, 1877.  
Dear Sir—In your last issue you notice the failure of the convention. The reasons are very palpable: First, The receptions of the Governor of Virginia and President of the United States; second, The drilling of the Volunteers preparatory to the competitive drill, companies were here from all sections of the State; third, Having to hold our meeting in a different hall from the one in which we at first expected—although the change was thoroughly advertised, yet a great many persons went to the wrong place. Now comes the inexcusable part. There were in the city the representatives of fourteen clubs, and the Presidents of seven. I had the pleasure of talking with a good many of them. The delegates from only one club reported. There is a very great interest felt on this subject everywhere in the State, and generally the laws are rigidly enforced. Dr. Ellzey's address, the written one I mean, was such a good one that it will appear in the December number of the *Southern Planter*, and will form the basis, if not the text, of our next letter to the people of the State, which will be issued at the commencement of the close season. Yours truly, CHAS. T. PALMER.

ALEXANDRIA, VA.—At a recent meeting of the Rapides Sporting Club the officers chosen for the ensuing year were: Pres., J. W. Prescott; Vice-Pres., Dr. James S. Fish; Vice-Pres., L. B. Raymond; Sec., W. W. Whittington.

THE GAME LICENSES IN NOVA SCOTIA.—There appears to be a general feeling of hostility in Nova Scotia to the exaction of licenses for shooting moose, which is, perhaps, natural enough; though we know of no better method of creating a fund for the pay of the wardens who are employed to protect the game. This opposition is especially manifested by officers of the garrison posts, who, having been accustomed to all sorts of restrictions "at home," we should suppose would feel the necessity of making and sustaining any reasonable law made for the purpose. The *Halifax Chronicle* says:—

"A considerable number (21) of licenses have been taken out by officers of the garrison and navy, under protest, but it is well known that a few, in defiance of the law and of all warnings, persist in shooting without license, and it has been thought advisable, in justice to those who have complied with the law of the land, as well as to test the question, that the matter should be settled by the courts. We understand that the Chief Game Commissioner has accordingly issued a writ against an officer of the garrison for the amount of the penalty prescribed by the law for shooting without license, viz., fifty-five dollars."

In the case of the Chief Game Commissioner of Nova Scotia against certain British officers of the garrison there, for violation of the game law, which prohibits the shooting of game without license, the Justices persisted in different opinions, and were unable to come to a decision. The case therefore now rests in a very unsatisfactory state.

WEST JERSEY ASSOCIATION.—On complaint of the West Jersey Game Protective Society, Edward Small, of Buddtown, and Henry Venable, of Red Lion, Burlington County, N. J., were arrested November 20th, for setting snares for game, and taken before Squire Thomas McKinney, of Vincetown. Small was committed to jail at Mt. Holly, as he could not pay his fine of \$35 and costs. Venable entered security to appear on the 26th of November to be tried. The Society has employed an attorney to attend to the case.

B. W. R.

**The Rifle.**

MASSACHUSETTS.—Massachusetts Rifle Association, Nov. 22.—A series of three matches were commenced at Walnut Hill range by the Massachusetts Rifle Association yesterday. Each match at 1,000 yards, with 45 rounds. Prizes, gold medal, and no match to be concluded unless a score better than 195 was made. Mr. W. H. Jackson made the superb score of 200. Of course Mr. Jackson had to keep up the prestige of the American team, of which he is a distinguished member. The third and final match for the prize will take place December 5. The following are the scores:

W H Jackson	4 5 5 5 4 5 5 5 5 4	200
A H Hubbard	4 5 5 5 5 5 5 5 5 4	194
W Poland	3 5 5 5 5 5 5 5 5 4	191
E W Law	4 5 5 5 5 5 5 5 5 4	186
T H Gray	5 4 5 5 5 5 5 5 5 4	185
J Wemyss, Jr.	3 5 5 5 5 5 5 5 5 4	183
H Tyler	5 3 4 5 5 5 5 5 5 4	178
A Hubbard	5 0 3 5 5 5 5 5 5 4	163
G H Loomis	4 5 5 5 5 5 5 5 5 4	146
D Hayden	4 4 3 5 5 5 5 5 5 4	145

Worcester, Nov. 22.—The Cody and Daniels Short-range Match.—This match, to be shot off-hand, fifty yards, between Buffalo Bill and Mr. C. L. Daniels, attracted some attention at the range near Lake Quinsigamond. Each rifleman has his own individual target, a black surface three feet square, with a white bull's-eye four inches in diameter. The weather was raw and unpleasant. The shooting was by no means first-class, and though Buffalo Bill was the winner, his target was by no means a good one. The score in inches and sixteenths was as follows:

Cody.	Daniels.	Cody.	Daniels.
1.....2-8	2-11	7.....2-7	0-11
2.....2-8	3-4	8.....2-4	2-13
3.....0-13	1-1	9.....3-3	2-13
4.....2-8	0-11	10.....1-1	0-4
5.....1-0	0-11		
6.....1-10	6-8	Total.....20-12	23-6

The judges were: Mr. I. P. Austin for the Hon. W. F. Cody, and Mr. F. Wesson for Mr. Daniels. At Greenwood range there was a match for the Washburn

badgs. Wind was strong and weather cold, but the scores were quite good:

500.....	3 4 2 5 5 5 4 5 5 5 5 4-68
900.....	4 2 5 4 5 5 5 5 4 2 4 5-61
1,000.....	5 4 5 5 4 5 5 5 5 5 5 4-69-100
A L Rice.	
500.....	2 3 5 4 5 4 3 4 3 5 5 5 5-63
900.....	5 2 4 5 3 5 5 4 5 5 5 5 3-64
1,000.....	4 3 5 5 2 5 5 5 5 5 5 5 5 4-100
C B Holden.	
500.....	2 5 5 3 5 5 5 5 5 5 4 5 4-61
900.....	2 4 3 4 4 5 3 2 4 3 4 4 5-54
1,000.....	3 5 5 5 6 4 4 5 5 5 5 5 5-67-100
A G Mann.	
500.....	0 3 4 4 4 3 3 5 5 5 5 5 5-65
900.....	4 5 5 4 4 5 4 5 4 5 4 5 4-65
1,000.....	5 3 5 3 5 6 5 5 5 5 5 5 3 4-64-100
L G White.	
500.....	3 3 2 4 5 4 5 5 5 5 5 5 5-61
900.....	3 5 2 4 5 5 5 5 5 4 5 5 5-61
1,000.....	5 4 5 4 5 3 0 5 5 5 2 4 5-69-100
G J King.	
500.....	3 3 2 4 5 5 4 5 5 5 5 5 4-62
900.....	5 5 5 5 5 5 4 5 5 5 4 5 4-63
1,000.....	5 3 5 5 5 5 4 5 5 5 5 5 5-67-100
Nathan Washburn.	
500.....	4 5 5 5 5 0 4 3 4 5 4 5 5 5-69
900.....	0 3 5 4 5 5 5 4 5 5 5 4 5-60
1,000.....	0 3 0 3 5 4 5 5 5 5 5 0 0

This match will probably close the season. We may state that the team has done excellent work, and will certainly occupy a leading position next season.

TELEGRAPHIC MATCH.—CALIFORNIA AND MASSACHUSETTS.—This match was the result of a challenge issued by the Oakland Guards to any company in Massachusetts. Terms: A team match; eight men from each company; bona-fide military rifles, with six pounds pull of trigger; any ammunition; 200-yards range, off-hand; two sighting and ten scoring shots; the match to be shot Nov. 10, at any time between sunrise and sunset, fair weather or foul, and the prizes to be a gold medal (value \$50) for the highest score, and a silver medal for each of the others in the winning team.

The Oakland Guard shot on their range at Melrose, but there was a fog, while the Roxbury City Guard shot at Walnut Hill range near Boston. The following are the individual scores of the Oakland team:

H B Burrell	5 4 4 4 4 5 4 4 4 4-43
E Pierce	4 3 4 4 4 5 4 4 4 4-41
J S Groce	4 4 4 4 4 5 4 4 4 4-41
C F Wallham	4 3 3 4 4 4 4 4 4 4-39
F W Gartner	4 4 4 4 4 4 4 4 4 4-39
Capt H D Ranlett	4 2 3 3 4 4 4 4 3 3-37
J A C Macdonald	5 5 4 4 3 4 4 3 3 4-36
M R Bankhead	0 3 3 4 4 3 2 3 3 0-25-309

The Oakland score was 50 points better than Roxbury City Guard. It may be remarked that the Oakland Guards have heretofore been almost invariably successful.

WILLOWBROOK RANGE.—The Connecticut Rifle Association shot for Mid-range Badge, Saturday, Nov. 24th. Strong head wind, varying constantly in force and in direction. The scores are as follows:

G. W. Yale, 49; William Parker, 48; Dr. Henry Woodward, 48; Jos. R. Hawley, 47; H. P. King, 46; Wallace Green, 45; Maj. C. P. Graham, 44; F. T. Studley, 43; S. A. Hubbard, 41. The last named used a 40 cal. rifle.
--

New York, Nov. 24.—Triloken Rifle Club.—Under the auspices of Capt. Eldrich, a match was shot at Zettler's Gallery. There were fourteen prizes contested for. Creedmoor target; possible 50. The following are the scores:

P Cramer	44	W Senewald	33
G Peirey	43	H Fierier	31
F Sauer	42	C Schuler	30
Capt A Eldrich	43	F Sude	35
G Emer	42	L Gurth	35
A Lorenz	39	Capt C Young	35
F Rau	33		

Creedmoor, Nov. 24.—There was a heavy gale of wind all day which is required some pluck on the part of riflemen to face. The matches shot were those of the Seventh Regiment Rifle Club and the Irish-American Rifle Club, open to the members of the respective clubs only. The Seventh Regiment Club shot for the bronze medal of the National Rifle Association. There were twelve entries. Captain J. L. Price won the medal on a score of 49 out of a possible 70 points. The regimental medals were also shot for under the same conditions. Private C. H. Eagle won the first on a record of 49 out of a possible 70 points, and C. M. Englis and J. E. Nichols won the second and third, respectively on inferior scores.

The Irish-American Rifle Club match for the mid-range badge. The badge to be won three times, not necessarily consecutively, before becoming the personal property of the winner. There were seven entries. Dr. M. M. Malby won the prize for the second time on a remarkably good record, making 70 out of a possible 100 points.

A number of regimental and other club matches are set down for Thanksgiving Day, and it is expected (if the weather be favorable) that a large number of riflemen will turn out. Shooting for prizes we have already announced to take place the same day on the Glendrake Range.

TWO IDENTICAL SCORES.—Here is an item of interest to riflemen, showing a coincidence in rifle shooting never before accomplished, and which, in all that has been written on the recent international rifle match, has not been brought out. In three days' shooting of Gen. Dakin he scored as follows, viz.: 210, 215, 210—635; and Chas. E. Blydenburg made the following: 206, 213, 216—635, each making the same total in the three days' shooting. By reference to our files, the dates on which this shooting was done are readily found. These gentlemen used the Remington breech-loader.

ZETTLER'S GALLERY, Nov. 22.—The second competition for the Engel medal was shot for by G. Co., Seventy-first Regiment, N. G. S. N. Y. Capt. Webber. Possible 50; Creedmoor target. The following are the scores:

Sergt Alex Steele	41	Corp E Demmler	32
Priv M B Moore	40	Lieut S Blakey	31
Capt A L Webber	39	J Durand	25
H Farrell	23		

Sergt Steele won the medal for the second time. The next match will take place December 4.

HISTORY OF THE ZETTLER CLUB.—The Zettler Rifle Club was organized June 18, 1874, number of members limited to 35, won two matches in 1874 with Heilwig's rifle team, ten men a side; also, beat the same club twice in 1875; beat the

Centennial Club, of Jersey City, ten men a side, Aug. 1876; best a picked team of New York City, ten men a side, shot at Conlin's Gallery, May 11, 1877. At the great Schuetzen-bund, held in Philadelphia, 1876, our club, although inexperienced then as 200 yards' shooters, came in fifth best, out of ten teams entered; also brought away some fifty prizes in all. Beat the Columbia Rifle Club, three matches at 200 yards, shot at Guttenburg; first match, shot March 1, 1877, ten men a side; second shot March 11, 1877, fifteen men a side; third, match shot April 13, 1877, fifteen men a side. We suffered our first defeat at the hands of the Helvetia Rifle Team, a club composed of some of the crack shots of other clubs at Union Hill, fifteen men a side, Oct. 1, 1877; second match, shot Oct. 29, 1877, fifteen men a side, which we also lost. At the Schuetzenfest to be held next year, 1878, at Union Hill, under the able management of the President, Captain Geo. W. Aery, President of the United Schuetzen-bund of North America, the Zetter Club will undoubtedly do their best to secure victory.

ZETTER RIFLE CLUB.—Weekly Shoot, Nov. 20th.—Creedmoor targets reduced to Gallery distance, 10 shots per man, possible 50: John Dutil, 48; C. G. Fetter, 48; Gus. A. Shurman, 46; M. L. Riggs, 46; B. Fetter, 46; P. Fenning, 45; L. Beates, M. W. Furrow, 45; Wm. Kline, 44; Chas. Judson, 43; Theo. Khesrath, 43; D. Miller, 41; M. P. Moore, 41; G. L. Pety, 41.

CONLIN'S GALLERY.—There will be practice shooting at Conlin's Gallery, 1222 Broadway, on Thanksgiving, day and evening.

SARATOGA RIFLE CLUB.—Saratoga, N. Y.—At a regular meeting held on the 12th of Nov., the following officers were elected for the ensuing year: President, James M. Andrews; Vice-President, Albert F. Mitchell; Treasurer, W. E. Howard; Secretaries, Wm. H. Benson, Capt. O. J. Wing; First shooting master, E. Davis; second shooting master, W. J. Leggett. The regular November shoot took place on the Spring street range on Saturday last. In the morning the shooting was at 500 yards, and in the afternoon at 200. Possible number of points, 50 at each range. At the 500 yards, the first prize, a fine gold badge, was won by Wm. H. Benson, and the second, a Centennial medal, by F. D. Wheeler, Jr. At the 200 yards, the first prize, the Farrington gold badge, was won by Wm. H. Benson; second, a fine watch chain, presented by J. H. Moody, was won by Irvin Davis. The following are the scores:

Table with 2 columns: Name and Score. W. H. Benson, Saratoga Rifle, 54 5 4 5 5 5 5 5 5 48; F. D. Wheeler, Jr., Remington, 43 5 5 5 5 4 5 5 5 48; P. Wakeman, Remington, 0 5 5 5 5 5 4 4 5 39; J. Johnson, Sharps, 4 4 5 5 5 4 5 4 5 41; Irvin Davis, muzzle-loader, 2 2 2 4 4 4 4 4 4 24.

AMAZER RIFLE CLUB.—The fourth contest for the Aneroïd barometer, presented by the N. R. A., took place at the rifle range, Rochester, Nov. 21. There was a heavy wind, the weather was cold, and a poor score was the result:

Table with 2 columns: Name and Score. R. B. Yates, 8 0 5 5 5 4 5 5 5 4-45; J. M. Whelan, Jr., Remington, 5 0 5 5 2 -17-62; James H. Brown, 3 4 5 5 5 5 5 5 5 5-44; Charles Francis, 4 4 3 4 0 -15-59; S. A. Servis, 3 4 4 5 3 -19-57; W. S. Smith, Jr., 5 3 5 3 3 4 5 4 5 4-41; E. Rider, 2 3 4 3 3 -15-56; A. Roda, 2 3 5 5 5 4 5 5 5 4-40; 0 2 2 2 4 4 4 5 2 4-29.

SAN RAFAEL RIFLE CLUB.—Cal., Nov. 11.—The following is the score made by the San Rafael Rifle Club at 200 yards: R. C. Moore, 5 4 4 3 5 5 4 3 4 4-40; R. D. DuBois, 4 4 4 4 4 4 4 4 4 3-39; R. A. Roche, 4 4 4 3 4 5 4 4 4 4-39; P. J. Jacobs, 5 3 4 4 5 3 2 4 4 4-33; G. W. Parker, 5 4 4 4 4 4 4 4 4 3-33; T. J. Crowley, 2 2 2 2 2 4 4 4 4 4-29.

Team shooting is spreading, for the Sacramento Pistol Team are now in the field. Range, twenty yards; method of scoring, with the target twelve inches in diameter, and a bull's-eye of seven-eighths of an inch in diameter; ring graded from 1 to 11, and bull's-eye twelve points. Score:

Table with 2 columns: Name and Score. Atkinson, 11 10 10 10 8 10 9 8 12-95; Brewer, 8 7 7 10 11 12 9 12-96; Byers, 6 8 9 10 9 7 11 10 9 7-86; Dixon, 10 10 7 0 11 7 0 6 0-69; Geibler, 11 9 6 5 10 8 8 8 8-81; Goldthwaite, 10 10 4 0 0 11 7 6 5 0-53; Griffiths, 11 11 11 9 12 11 11 8 8-103; Jackson, 9 8 8 4 11 9 9 9 10-89; Reed, 9 7 8 4 7 9 8 8 8-79; Williams, 10 9 8 6 11 10 8 8 8-81.

Mr. Griffith's score of 103 is a very good one.

DEPARTURE OF MR. W. RIGBY AND MR. R. S. GREENHILL.—After having made quite an extended tour through the United States, these two gentlemen left on Saturday for England. They express themselves as highly delighted with their visit, and state that they are not likely to forget the kindness and hospitality with which they have been received.

THE RIFLE ON RUNNING GAME.

In the previous article I said the first thing to be done when a deer starts is to remember that you have a rifle in your hands and not a shot gun. The number that can be missed, even inside of 75 yards, with a rifle fired as a shot gun, by good shots on quail or woodcock, is perfectly amazing. A deer in market or in a picture looks quite large, but in reality they are a very small mark. There is around them an immense amount of vacancy and the tendency of a bullet to find it is marvellous. In the winter of 1868 and 1869 on the head waters of the Chippewa River in Wisconsin, out of over 50 first-rate running shots that I got in about a month's hunt, I

hit just exactly two, and only scratched hair on them. Only two months before that I had killed 19 quail hand-running in thick brush, and had repeatedly killed 12 or 13 successive shots in the thickest kind of New Jersey cover. At the same time I could with the rifle hit a deer standing about as well as most men. This is a humiliating confession to make, but I do it for the benefit of those who may get in the same situation, to show that a shot-gun aim is perfectly useless, except, of course, by accident. Had I never touched a shot gun, I would doubtless have done much better. For the instant a deer would start, off went the rifle the same as on a quail, and I forgot all about the sights.

After breaking myself of that habit, the next blunder was not shooting far enough ahead. I know, of course, that it was necessary to shoot somewhat ahead, the same as with a shot gun, but had no idea of how far until all my good chances were wasted, and the season out. And my experience in these two respects corresponds exactly with that of all others whom I have met. This distance is surprisingly great. Almost every one in his first attempt at duck shooting, has been surprised to find himself missing beautiful crossing shots, while holding directly on or even a few inches ahead of them, and has finally discovered that two or even three feet ahead will kill where six inches will not. It is even more so with a deer, for a bullet does not scatter, and half an inch is a miss. Moreover, he is much further off, as a general thing, than ducks are, and is also moving much faster than one supposes. As the margin required will vary with the distance, speed of the game and speed of the ball, it is impossible to lay down any reliable rules. Nor can any mathematical calculations be of any avail, both for the same reasons, and the further difficulty of applying them when made. It is also difficult to express practical knowledge on the subject in figures. But I will try and give a few as a rough guide to your own practice. These as well as all figures heretofore given will necessarily be inaccurate, for I can only guess at them as they appear to me over the sights. They may be as much as a foot or more out of the way.

A deer seldom runs at full race-horse speed. His usual gait is a graceful canter or springing jumps. Still he is going faster, and your bullet is much slower than you suppose. I have never had more than two shots at deer running broadside at a racing point. The first was about seventy yards off, scratching dust at a furious pace. I fired at what seemed to me fully five feet ahead of him, and saw the ball tear the dust from a knoll about thirty yards beyond him, in a line with his tail, but apparently three or four feet behind him. This deer must have moved fully twelve feet at least while the ball was traveling the 100 yards. The next one was not over forty yards, and, recollecting the other, I held about the same distance ahead, striking him just back of the shoulder. A hare (Calif. formia jack rabbit) under full speed, at fifty yards, wants about five feet margin, running at a light gait about 2 1/2 or 2. Running quartering at forty or fifty yards I have repeatedly struck just behind them, although holding a foot ahead. And even when running at a very sharp angle to the line of fire, I have invariably made the dust fly behind them when holding directly on, and this, too, at not over twenty paces distance. Holding ahead must never be neglected unless your deer is very close or going very slow, and even then it will be safe to hold off the body, even though it may be safe enough to hold on. At a deer driven toward me, and coming on a course so slightly quartering that he would have passed within twenty yards of me (or as our Creedmoor rifeman would aptly express it, coming like a 11 o'clock wind), I fired at about 75 yards. I held just so as to see a strip of daylight ahead of his breast, and struck in the middle. These distances are taken from shooting done with a .44-rifle, seventy grains of powder, and the long-range (53 gr.) ball. With 77 grains of powder I could see no difference in practicing on hares, although with a round ball the difference is perceptibly less at 100, and even up to 120 or 130 yards, though not enough to be of much consequence for deer. In shooting from a running horse it will, of course, not be necessary to hold ahead where the speed is equal.

The large hare makes the best of all practice next to deer, when you can get them on ground where you can see the ball strike. In Southern California the ground is so dry during three-fourths of the year, that the dust will fly whenever the ball touches, and when deer are out of season (and even when in season), I have capital sport as well as capital practice in this way.

But if you cannot have opportunities on living marks you may make a good running target, with a solid wheel, saved out of a two-inch plank, about eighteen inches in diameter and rolled down hill by some friend who is short of better amusement. But if accommodating friends or impeccuous small boys are scarce, make a frame for it of two pieces of plank, nailed edgewise on a third piece, two or three inches apart. Drive a nail in the top edge of each, and lay a wire across back of them to hold the wheel in place. Set the frame at the top of a hill with a lively slope, and with a loose string attached to your wire, let it start when you get in position. Try it first at thirty yards, until you can hit it twice out of three times. Then increase your distance and its speed from time to time. If you can get, or so fix, the hill side as to make it give a regular bounce it will be much better. The only trouble with this is, that, like the Creedmoor running deer target, it does not give variety enough. But it is first-rate where you can get no better, to say nothing of the appetite acquired by packing that wheel up hill fifteen or twenty times.

It is not necessary to throw your rifle ahead of the game when you first raise it. But it is always expedient to do so. If you raise it directly on the mark the temptation to pull is often too strong to resist.

The tendency to overshoot game with a rifle is one of the remarkable and inexplicable things about hunting, and where is this tendency so strong as on running game. It was for this reason that I told you to file the back sight flat on top. If the sides are higher than the centre notch, there will be a constant tendency to shoot too high from trying to see your game above them. With a little practice you can catch this sight quite as quick and shoot just as well as with the "back sight," which for good work is only a needless nuisance. I go still farther, and cut down the sides about one-twentieth of an inch, leaving about one-sixteenth of an inch on each side of the centre notch (which is simply a fine split) standing above the rest of the sight. Over the sides of this can get a clear view of the whole body, even to the feet of a deer in any way he may run. I find that I can catch this sight just as quick as my other, after a little practice, and am not half so apt to

over-shoot with it. Twice I have killed as high as three hares out of five shots at over forty yards running broadside with this sight; although I must admit that there is a tremendous amount of "scratch" about such shooting as that, as, owing to the jump of the hare, which it is impossible to take into account, it is very difficult to avoid over or under shooting at least one-half the time on an average, besides the difficulty of getting the right margin. The value of your shot on such small game must be tested always by the question, where does the ball strike? And not by its hitting or missing him as you may make a dozen capital shots without touching so small a mark.

For running shots a set trigger is an abomination; equally so is the three pound pull. It should be so that a moderate jerk will fire it without disturbing your sight, and without the necessity of beginning a moderate pressure as you would with a hard trigger at a target. About one and one-half or one and three-quarters pounds is about right, though for a heavy rifle two pounds would perhaps be easy enough.

Thus far I have spoken of open shooting. When you try to shoot in timber you may be edified by hearing your ball "whack" into a tree between you and your deer. You must now watch three things: 1st your sight, 2d your deer, 3d the trees. Where trees are very thick it is often best to pick out an open place and throw your sights into that, firing just as the deer gets within the right distance from them. But be sure and not wait until he touches the line of your sights or you will miss him if he is going at any speed or is at any distance.

There will be generally little use in shooting beyond the point-blank of your rifle; unless in cases where there is no probability of your deer stopping for a standing shot. By point-blank, I mean the distance to which your rifle will shoot over the fifty yard sight, so nearly level that the drop of the ball need not be taken into account. As soon as it becomes necessary to make allowance for the falling of the ball this kind of shooting becomes uncertain, from this cause and the increase of margin that is necessary for the increased distance as well as the difficulty of allowing for the up and down motion. After a few trials you will see the gigantic absurdity of all talk about killing on the run at two hundred and three hundred yards. An examination of the scores at the Creedmoor two hundred yard target will soon show you that it is no child's play to kill a deer standing at two hundred yards, even when the distance is exactly known, and you will be more firmly convinced when you come to try it. And this difficulty becomes enormous when the mark is in motion, and its distance not known exactly. You would have to guess the distance to within fifteen yards, and that too in an instant, throw up the proper sight or else shoot over the open sight so as to allow for about five or six feet fall of bullet, and shoot from ten to twenty feet ahead. This would be hard enough if the deer were only trotting, to say nothing of a high lope or springing gait. Such shots may of course be made, but they are "scratches" and terribly scratchy ones at that. It is safe always to conclude that the man who tells such a story is a very poor judge of distance and to discount it one hundred per cent.

Remember that coolness is absolutely indispensable and that haste will do you no good. Let quickness come with time, and practice slowly and carefully. Do not be beguiled into fast shooting at that Creedmoor target; make it your first point to hit, and don't shoot at first more than once on one run, unless you have a double-barreled rifle. Let others try to see how big a ball storm of bullets they can get up in a given time if they like it, and don't be at all bothered if by so doing they happen to make more points than you. You will in the end do by far the best work on game if you take it easy and make accuracy the first point.

Recollect always your sights; sights first, sights next, sights last—never forget them. Don't be in haste; it is far better to let a deer get twenty or thirty yards farther off than to take a careless aim or get your eye off your sight. And never try any scrap shots, unless of course, when another jump or two will take him out of sight. And never try to get in a shot ahead of your companion if you happen to have one, but shoot just as if alone. If you follow this advice carefully you will be surprised at the progress you will make, and at the amount of true pleasure you will have, although you need never be ashamed of missing even a fair shot.

Miners Rancho, San Diego Co., Cal. J. S. VAN DYKE.

UPSET OF BULLETS.

UTICA, Nov. 5, 1877.

EDITOR FOREST AND STREAM:

I should be glad if you would give me some space in your paper in order that I might present my views on rifles and the upset of bullets, and to correct a mistaken idea that I think the general public have of muzzle-loading rifles—I mean those which have been used in the great rifle contest. I have taken the FOREST AND STREAM for the last three years and have read many articles on rifles and rifle shooting with much interest. I saw the mistaken idea that the public had of those muzzle-loaders, and have waited in hopes that some one more able with the pen than I am would correct it. The general opinion is that there have been tests between muzzle-loaders and breech-loaders; I claim there have been no tests with what riflemakers and all crack shots call muzzle-loaders. The proper muzzle-loader is provided with a guide starter, which is fitted to the muzzle of the gun in perfect line with the bore; with this starter the bullets with a linen patch are driven into the gun and fitted to the grooves air tight.

This insures that it will follow the grooves in coming out, and in case it is not expanded by the powder, it will not make a very "bad unaccountable" shot. When solid bullets are used in these guns, only part of the bearing on the bullet is fitted to the grooves in loading, allowing the powder to expand it to complete the bearing. If I understand it, the bullet for those muzzle-loaders (made by Metford and Rigby) are put down the bore with a paper or linen patch, and do not take the rifling sufficient to follow the grooves, until it is expanded by force of powder, and therefore do not represent a proper muzzle-loader.

The bullets for our American breech-loaders are prepared with a paper patch, and just fill the bore without taking the rifling, the same as the Metford and Rigby rifles; therefore both are on the same principle. It matters not where the bullet is put into the

gun if both depend on the expansion by force of powder to make it take the groove. There is no reason why that style of muzzle-loader should shoot any different from the breech-loaders; the bullets to both guns are made similar in form and hardened with tin so as to prevent them from expanding too much. But it sometimes happens (from different causes) that they do not expand and take the grooves, which is the main cause of those "unaccountable" shots. It is evident, from close examination of the diagrams made in those matches within the last three years, that the difference between those muzzle-loaders and breech-loaders is not worth talking about. The diagrams made by both teams show that some members had better guns than others, and made better scores in consequence. Any man who is posted on rifle-shooting can tell at a glance at those diagrams which had the best guns, and whether the style of shooting showed a fault in the gun or marksman. Compare Dakin's target and some others with Blydenburgh's, and the great difference in the qualities of the gun. Dakin made good wind, but his gun made too much up and down to make a full score, and the targets show that it was not his fault. The variation of one-thousandth part of an inch in the bore or form of rifling in those guns is what makes the difference, and if the bullets were hardened, the most suitable and the best charge of powder used for each gun, it would probably remedy the difference.

Rifles that are considered the most accurate are those that carry the greatest number of shots to a horizontal line, and the great study has been to make guns perfect, and the bullets for them of such form and hardness as to give the most uniform power. Your correspondent, "Straight-bore," gives the idea that the upsetting of bullets is of recent discovery. In this allow me to say he is mistaken. It was well known by the best rifemakers twenty-five years ago that a bullet expanded in the breach of the gun by force of powder the instant it started, the powder giving it a blow like striking it with a hammer, and the reaction forward of centre of gravity caused the bullet to upset—shorten—and fill the bore and often take the grooves above the patch. It was also discovered impossible to cast bullets of any soft lead and get them uniform in density, owing to some foreign substance in the lead. By squeezing a number of conical bullets lengthwise in a vise to half their length they were found to be knotty and uneven, showing that if they were much expanded in the gun they would become crooked and unsteady in their flight. The fact was proven by shooting them into snow.

The best rifemakers have acted on this knowledge of upsetting of bullets and uneven density of lead ever since, and devised ways to get the most uniform expansion by hardening the bullets with block tin or antimony, and using a grade of powder most suitable for the size and length of bullet used. Some years ago bullets were made in two parts, the forward part of antimony and lead, then a shell or butt of soft lead was cast or swaged on to complete them. These bullets were made to get a more uniform expansion, and to confine the bearing within the patch where it should be. These are the best bullets in use at the present day.

The length of guns was also considered, because with too quick powder there is a column of air packed within the barrel, near the muzzle, which diminishes the power. I have known powder so quick that a small charge put into a long rifle barrel (that was freed or choke-muzzled) that it expanded a conical bullet into a cylinder shape and stopped in the choke at the muzzle of the gun until all the gas escaped at the nipple. The same amount of powder put into a three-inch barrel pistol would have driven the bullet through two inches of pine. But the bullet would have upset the same in the pistol. Resistance to the bullet by friction or otherwise while the powder is being consumed gives the greatest force and less power after it is consumed. The same applies to shotguns. The English have a mistaken idea—and most Americans too—that extreme long range rifles were not made in this country previous to these rifle contests. Such rifles were made in New York State ten years ago, and there are many of them in use at the present day that can make a score at 1,000 yards equal to the best that have been used in these long range matches. I know of twenty-six successive shots made with one of these guns at 600 yards, all within seven inches in diameter, and made previous to this rifle contest.

Another absurd idea is our rifemen "classing guns by weight." A barrel of ten pounds weight will shoot as well as one of twenty pounds of the same bore and length, provided the light one is not fired so rapidly as to heat it. It is true that a heavy one has a little the most power, but the difference is not worth talking about where both guns are made with equal care. The fact is gunpowder is so quick that it takes the most of its power from a small amount of dead weight, and the light guns shoot about as well as the heavy ones. Rifles have been made heavy to do away with the unpleasant recoil.

The light Creedmoor rifles do not shoot well from a solid or hard rest, owing to the expansion of the barrel when it comes in contact with a hard substance and causes the muzzle to jump, but they do shoot well from a cushioned rest, or on the body in the positions taken, which are not much inferior to a cushioned rest. My opinion is—and I have good grounds for giving it—that muzzle-loaders will soon be made that will shoot one-third less up and down at 1,000 yards than any now in use. GEO. H. FERRIS.

CAUSES OF INACCURATE SHOTS.

EDITOR FOREST AND STREAM:

The lamentable and apparently inexplicable accident which occurred at the target shooting near Albany, which resulted in the loss of a life, because a bullet diverged some thirty feet from its expected line of fire, seems to call upon all who can give any explanation which may possibly account for the result, and which may tend to lessen the chances of a repetition, to do so, even if, as in my case, it is necessary to plead guilty to a certain amount of stupidity.

The day of the accident I was attending a turkey shoot, and had with me a small cavalry carbine, throwing a heavy ball. I have used this gun for years, and have become so accustomed to it that I have always felt it safe to make a good record at anything from a sparrow at fifty feet to a turkey at two hundred yards. Upon this occasion something was wrong. The balls flew to the left and right, in some cases fully thirty feet, and, in many instances,

struck the ground at not half of the distance, and in others, by their peculiar noise in flight, indicating very plainly that they were turning all sorts of somersaults in the air.

Of regard to the marker's feelings, I laid the gun to one side, and met the gibes of the countrymen upon my poor shooting by a general remark that the sights were out of order. The fact was that by accident I had provided myself with a lot of cartridges one size too small. My gun requires 56's; I was unsuspectingly using 50's. Upon cleaning the gun after my return home, I found why the balls had diverged so much to the right and left. Several of the grooves were so badly leaded that a ball dropped in at the breach would lodge upon the lead, while after scraping out the obstructions, it would drop through without touching.

If by an accident the unfortunate marksman at Albany was using as I did—too small a ball—he had worse luck than I, for it is not to my credit that I did not kill a marker. That small balls alone were the cause of my wild shooting was made very evident by my striking an inch circle three times in five shots, at sixty yards, the next day, the only change being in size of ball.

OCCASIONAL.

LETTER FROM SIR HENRY HALFORD.

The following exceedingly interesting letter we take from the United Service Gazette of November 10th:

THE MATCH AT CREEDMOOR.

To the Editor of the Volunteer Service Gazette:

SIR—It is very satisfactory to see so much interest taken in the result of the Centennial Match at Creedmoor. What I most feared was that the cold shade of indifference which was shed upon us before our departure from England would still throw its blight upon us on our return. The letters in your columns, however, show that defeat has, as usual, roused the Britisher from his apathy, and so I venture to trouble you with my views of the causes of our failure to win the Centennial Trophy.

It will be well in the first place to compare our system of prize shooting with those which are used in the United States. There the individual prizes are few in number and small in value; twenty dollars (or five pounds) being a large first prize. Here they are many in number and often large in value. There the team matches are many with scarcely any, if any, money prizes—here they are very few with no money prizes. There men shoot for honor—here, I am sorry to say, with some exceptions, for the pot. The result is that our men, having to rely on their own skill and judgment, become, as individuals, better rifemen than the Americans. They, on the other hand, have learned the value of drill and organization, and herein lies the secret of their success in team shooting.

The team that we had to contend against had been at work as a team since April last with its staff of coaches and spotters, in whom the men learned to place the utmost reliance, upon the very ranges on which the match was shot. On the other hand, our men were only able to have three days' practice together as a team—a time utterly inadequate for some of them to throw off their old habits and subordinate themselves to the judgment of their coach, who, with four times the data to work upon, and the latest information of any changes of wind, ought to be able unhesitatingly to give the amount of allowance required if only his men will shoot quick enough and are steady.

To put a team properly together is a work of months, and under the rules for the Centennial Trophy, it appears to me impossible to send out a united team fit to represent our country unless Scotland and Ireland waive their right to send teams of their own, and join heartily with us in trying to wrest the prize from America.

The other points upon which I would touch are—the Ranges, the Rifles and Positions.

I went out to America with the idea that Creedmoor must be very easy ground to shoot over, not only from the high scores made by the Americans themselves, but by the foreign teams also which had contested on it. I do not now, however, consider it easier than many of our own ranges would be, were they properly flagged. Mr. Toller asks if they know what a fish-tail wind is? The answer is that they hardly know of anything else. They have, however, plenty of flags in the right places, and a large clock-dial to indicate the direction of the wind. The big scores made by foreign teams are due partly to these appliances, but chiefly to their improvement in team shooting, the result of the practice, small though it may have been, that they have had shooting together as a team.

Now as to the Rifles. I have not in the least lost my confidence in our rifles, but to get work out of them as good as the Americans get out of theirs, they must be treated with the same carefulness and attention. Without cleaning, the American breech-loader is absolutely useless, for no second cartridge can be inserted. With partial cleaning they stand no chance against our rifles uncleaned. When thoroughly cleaned they are, I think, better than ours uncleaned; but when both are treated alike, and thoroughly cleaned, I have every reason to believe that our rifles are superior to theirs. I have had two of them for two years, have tried them well, and have always beaten them with a Metford. I have brought two more over, as the makers claim some improvements, and shall again give them an exhaustive trial. My own personal experience has convinced me that a muzzle-loader can be cleaned quite as easily and certainly as a breech-loader. The Americans are now experimenting with muzzle-loaders of their own make, and report most favorably of them, and are also, some of them, providing themselves with our rifles. They are quite tired of the trouble attending the use of the breechloaders.

With regard to Position. The match will, I trust, convince the shooting public that they must, if they wish to become successful shots, give up the forward position for any rifle matches. I was convinced two years ago, and at that time discarded it for all but military rifles. We should have lost the match if all had been on their backs, so must not give undue weight to the fact that three of our men shot on their faces, nor forget that an average of our highest score would not have been sufficient to win.

To sum up. We lost the match for want of time to organize our team properly, and our scores were further pulled down slightly by want of a thorough knowledge of the range—by position, and by want of sufficient care in loading our rifles.

In conclusion, let me say that I have had an intimation that the Americans would not refuse a friendly match at Wimbledon next year (not for the Centennial Trophy) should our N. R. A. invite them. If they do come it will be no child's play to meet them. They have a team; we have to make one.—I am, yours faithfully,

Wistaro.

H. ST. J. HALFORD.

This letter of Sir Henry's is an excellent one, and American Rifemen appreciate the compliment when Sir Henry says, "there (in America) men shoot for honor—here, I am sorry to say, with some exceptions, for the pot." But we by no means see by what argument the gallant Captain of the English team comes to the conclusion that, "as individuals, our men are better rifemen than the Americans." This dictum we can by no means allow. Another point of difference is in regard to guns; essentially bound up in the love of muzzleloaders, Sir Henry sees but little good in breechloaders.

If, however, Sir Henry Halford has no doubts as to the superiority of English muzzleloader, Mr. Miller has, as has also a correspondent, who signs himself Breechloader, whose letter taken from the Volunteer Service Gazette we copy.

To the Editor of the Volunteer Service Gazette:

SIR—I shall be glad if you will allow me to say a word or two on the above subject. First let me express a hope that some of the British Team who have procured American rifles will give us the information asked by your correspondent "Martini" in last week's Gazette. We shall then, perhaps, be able to form some opinion as to the correctness of Mr. Herbert Miller's certainly forcible arguments. In a great match, like the Centennial, where the national honor is at stake, we ought to see that the British Team is armed with the best rifle known to science. Some of our "cracks" say that our rifles are "second to none." This intelligence would be very reassuring if it were not for the awkward little fact that the American rifles have beaten the British three consecutive times. The truth is, not one British rifeman in a thousand knows anything at all about the American gun. In our usual British conceit, we jump to the conclusion that everything English must, as a matter of course, be better than anything foreign, without even taking the trouble to find out whether it is so or not.

I quite agree with Mr. Miller that the quality of the American rifles is a fit subject for investigation. On the whole, we have not a single atom of reliable evidence to show that our rifles are as good as the Americans'.

There now seems a disposition to put all our eggs in Mr. "Coach's" basket. If the "Coach" were to break down what would become of the poor trigger-pullers?

Mr. Miller possibly sees this danger, as well as

Your obedient servant, BREECHLOADER.

PAPER SHELLS.

Manufactured by the Union Metallic Cartridge Company, are Superior to any Shells of the Same Grade in this Country or Europe.

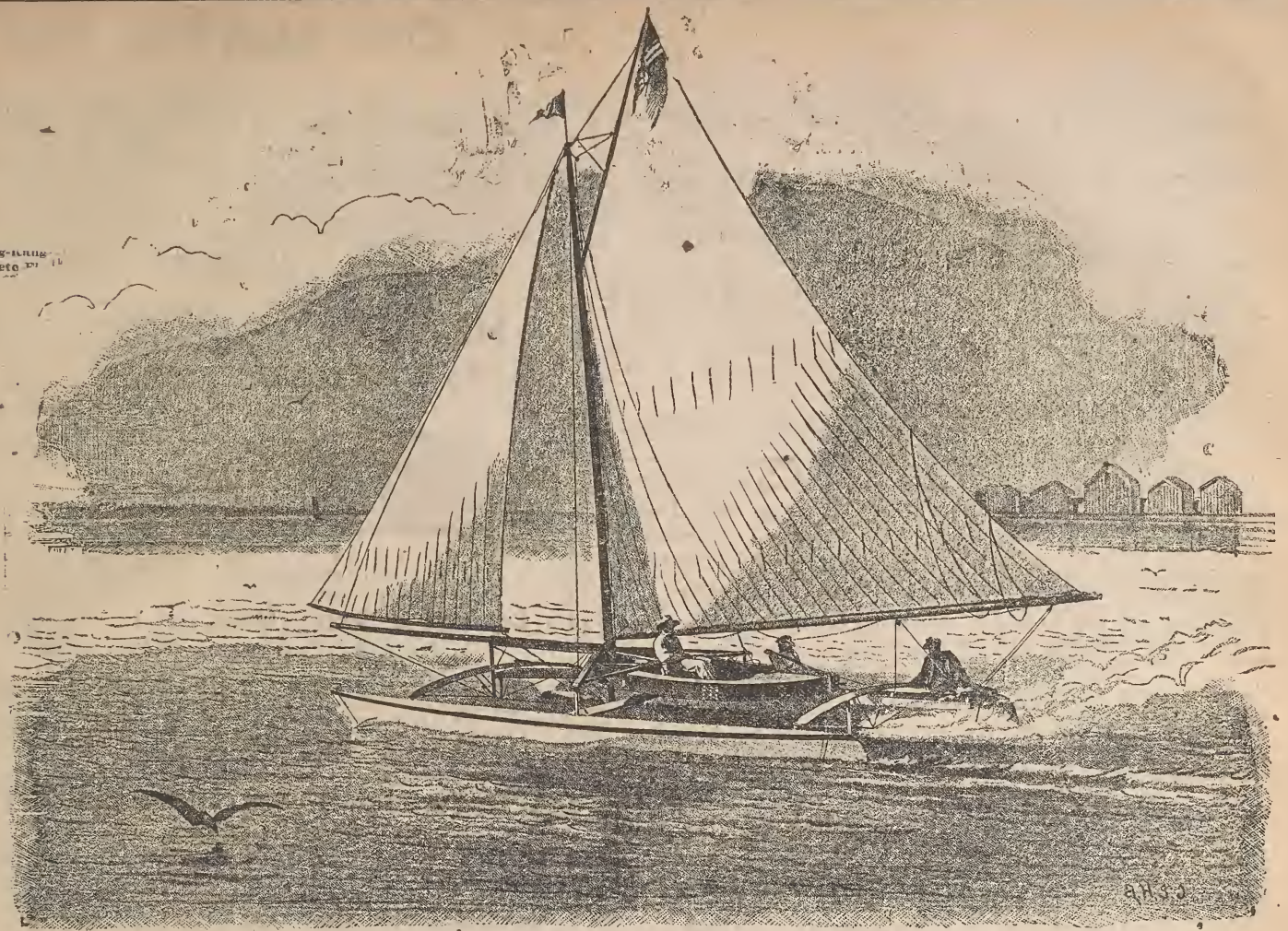
They are SURE FIRE, will NOT BURST in the gun, and are warranted to shoot as well with the same charge of powder as any shell in the market. A letter published in the Chicago Field, Sept. 23, giving the result of a trial made with No. 19 St. Louis Shells which are claimed to save 25 per cent. of the powder, and give almost no recoil to the gun and No. 19 Bridgeport Paper Shells, says:—

"Four of each loaded with 3, 3½ and 3¾ drachms of Laflin & Rand's powder, and all with 1½ ounces by weight, or 333 pellets to the charge counted, of No. 7 Chicago shot. Distance 40 yards to muzzle of gun, target a circle 30 inches in diameter, a bull's-eye center, 1½ inch circle penetration pads 9½ inches by 11½, 20 sheets to pad, made of heavy, hardware paper, 30 sheets large enough laid on each other making 24 pads. The gun was shot resting across a bag filled with straw. The following is the result:

ST. LOUIS PAPER SHELLS.				
	Pellets in Bull's Eye, 1½ inch.	Pellets in Penetration Pad, 9½ by 11½ inch.	Pellets in 30 in. circle.	Sheets penetration by 2 Pellets.
3 Dr. Powder.				
1 R. B.....	0	54	240	18
2 R. B.....	2	37	233	19
1 L. B.....	3	54	243	16
2 L. B.....	3	43	240	17
	7	189	956	70
3½ Dr. Powder.				
1 R. B.....	2	48	225	17
2 R. B.....	1	30	210	16
1 L. B.....	0	16	120	15
2 L. B.....	1	61	249	17
	7	155	804	66
3¾ Dr. Powder.				
1 R. B.....	3	59	224	17
2 R. B.....	1	52	261	19
1 L. B.....	0	55	256	17
2 L. B.....	3	62	263	18
	7-21	229-572	993-2,753	72-20
BRIDGEPORT PAPER SHELLS.				
3 Dr. Powder.				
1 R. B.....	2	57	256	17
2 R. B.....	3	44	245	17
1 L. B.....	4	54	243	17
2 L. B.....	4	58	249	17
	12	215	971	67
3½ Dr. Powder.				
1 R. B.....	1	18	187	14
2 R. B.....	3	63	262	18
1 L. B.....	2	54	226	19
2 L. B.....	3	54	211	15
	9	153	886	60
3¾ Dr. Powder.				
1 R. B.....	2	63	250	19
2 R. B.....	1	60	256	18
1 L. B.....	1	54	216	16
2 L. B.....	1	43	233	13
	5-26	220-618	956-2,702	72-200

All the shells were loaded precisely the same as near as I could load them, with one black and one pink edge wad over powder, and one black edge wad over shot. I have no comment to make on the relative merits of either shell, the figures stand for themselves. I could see no difference in the recoil of the paper shells. I think the reliability of the Bridgeport paper shell is worthy of mention, having fired a large number in the past three years without having one misfire. I can't say enough for any other paper shell I ever used.—[407]

LONG ISLAND  
plate 27



THE CATAMARAN "TARANTELLA."

**Yachting and Boating.**

**HIGH WATER FOR THE WEEK.**

Date.	Boston.		New York.		Charleston.	
	H.	M.	H.	M.	H.	M.
Nov. 30.....	7	05	8	05	3	11
Dec. 1.....	8	04	4	57	4	10
Dec. 2.....	9	01	5	53	5	05
Dec. 3.....	9	57	6	44	5	53
Dec. 4.....	10	51	7	31	6	47
Dec. 5.....	11	41	8	19	7	35
Dec. 6.....	0	13	9	07	8	29

**THE CATAMARAN TARANTELLA.**

We express our indebtedness to the *Spirit of the Times* for the use of its excellent cut of the Tarantella, which graced the pages of our contemporary last week. From an exceedingly interesting article, due to Mr. N. G. Herreshoff, the builder of this catamaran, we take the following extracts.

As to the tendency of catamarans to turn over, Mr. Herreshoff writes: "And now, whilst we are flying along, with the waves lifting and breaking high under the after tie-beam, let us overhaul another of the alleged failings of the catamaran, to wit: Their tendency to turn over endwise or pitch-pole. Now, the centre of effort of the sails of the Tarantella are 1ft. 6in. above the water-line. With the wind abaft of beam the tendency to bury the bows of the hull is quite obvious. This desire to bury forward is corrected, in a measure, first by having more than an ordinarily large jib, which, on account of its inclined position, lifts strongly that part of the boat. Then the midship link, at which point is imparted most of the press of the sails upon the leeward boat, is so placed in relation to the displacement of the hulls, that the downward push (to which the force of the wind on the sails is resolved) presses more toward the stern, so the leeward boat always keeps in good fore and aft trim. The trouble then lies only in the lifting of the stern of the windward hull. Of course, if you lift the stern of the boat, and thus make the bow bury itself, the effect is just the same, and just as unpleasant as when the bow sinks for want of buoyancy with the trim of the stern where it should be. \* \* \* \* Building the catamaran high in the bows cannot remedy this fault in the least degree; the only thing to be

done is to take care of the stern, and the bow will take care of itself. Having stationary ballast will keep the stern down, but this is against my principles. I want to have everything about the boat as light as can possibly be; so when the stern of the Tarantella looks light, my companion sits on it, and says it is one of the best seats on the whole boat. It is almost always dry, and one gets there a more realizing sense of the speed with which she tears along. It is as it would be riding on the back of the wildest horse; not nearly so wild, in fact, but a great deal steadier, having only a purely up and down motion as she flies over the waves, which is most exhilarating and exciting."

Writing of the speed of the Tarantella, for she must be a fast one, the same authority states,

I have made lately several trials of windward speed in the Tarantella, the best of which was a beat to Newport from Bristol, distance 13 miles. The wind was so nearly ahead, that the sum of the length of the port tacks was 7½ miles, whilst that of the starboard was 8½ miles. This run was made in 1h. 53m. The tide was fair. From this and several other similar trials, I have rated the maximum speed of the Tarantella, dead to windward, at 6½ miles an hour. Of her speed, in free wind sailing, the fastest I have actually measured, was 18 miles an hour, though on one other occasion I am positive of sailing over 22 miles an hour. It was at the first striking of a squall, the water was nearly dead smooth. Unfortunately I was not near any point where I could take time. These extreme speeds are by no means made every day in the week. In our average summer winds, say about three-fourths of a whole sail breeze, the catamaran, sailing free, will go 15 or 16 miles an hour.

As the season advanced, and the winds became stronger, I had several opportunities of trying the Tarantella under shortened sail. With a three-reefed mainsail and storm-jib, I made as fast time in smooth water as under any condition. With a double-reefed mainsail alone, she worked admirably to windward. But what seemed to me most surprising was, that, under shortened sail, she would make remarkably good time, even faster than the common style of yachts, and that in breezes when all sail might be carried.

One day, late in September, the wind in force, and direction chanced right for me to race with the Richard Borden, our fastest bay steamer. I lay in wait for her, as she was making her daily trip to Providence, and pounced upon her off Papposequaw Point. I passed her with the greatest ease, and at Rocky Point I was a full

half-mile ahead, notwithstanding the breeze which over the last part of the course became quite moderate. The last act of the season was the sale and delivery of the Tarantella to Commodore F. Hughes, of Greenport, L. I., under whose flag she now sails."

Mr. W. L. Alden, (whose article on catamarans in *Harper's Monthly Magazine* of October last was so favorably read by yachtsmen), gives the highest praise to the Tarantella, and the skill evinced in her construction. Mr. Alden considers that the flexible joint system, as used by Mr. Herreshoff in the coupling of the catamaran, is a most admirable idea, in fact, just the improvement which cultivated thought would give to the original barbaric conception.

—The arrival of the bark W H Reese at Bath, Me., with a cargo of masts, spars, decking and ships' keels from Puget Sound, W T, is considered by the *Bath Times* an event worthy of note. The *Boston Advertiser* remarks:

Suitable spars for our large ships, and suitable plank for upper decks of first-class vessels of any size, have for many years been difficult to obtain. The appearance, even the value, of many of our fine ships has been greatly lessened by the short, knotty, splintered, miserable decks given them. If these Oregon spars and plank prove what is claimed, there is no doubt but they will be readily sought for and purchased.

—J. H. Rushton, the manufacturer of the best light cedar floats in the country, is erecting a new building on Water street, near the stone blacksmith shop, to accommodate the increasing demand of his business.—*Plaindealer, Malone, N. Y.*

**New Publications.**

**MAGAZINES.**

*Wide Awake* for December! That exclamation point is for the boys and girls when they tear off the wrapper. A Fox figures in the frontispiece, and the exploits of his cunning highness are narrated in a sprightly sketch, by Elizabeth Kees. Child Marion Abroad, whose European wanderings have been followed by scores of young readers, and whose sweet ways have endeared her to so many of her American friends returns home, and bids adieu to the pages of *Wide Awake*. Sophie May also concludes her serial story, *Solomon's Seal*. Price's Pocket Book, *The Wedding at Podger's* and the installment of *The Adventures of Miltiades Peterkin* Paul are full of interest and humor. How to

Make a Fire is a capital illustrated description of the different methods employed by savage races to produce fire. Uncle Sam's Almanac is an intelligent description of the nautical almanac, and another valuable paper is one of the series "Poets' Houses," the present chapter being devoted to Thomas Bailey Aldrich. There are several poems scattered throughout the magazine, contributed by Edgar Fawcett, Ella Farmony, and others. One of the most useful things in the whole number is the "Behaving" paper, in which we are told "How to Amuse Younger Children." *The Tangled Knots*, *Parlor Pastimes*, and other features are as lively and sprightly as ever, and will doubtless afford amusement for more than one long evening. *Wide Awake* is published by D. Lothrop & Co., 90 Franklin Street, Boston.

*The Field and River* is a bright magazine, devoted to woodland, farm and garden, natural history, field sports, boating and fishing and protection of game; published at New Brighton, Pa. Its general appearance is neatness itself, and there has been excellent judgment used in the selection and arrangement of matter.

*St. Nicholas* appears this month in a new dress, designed by Mr. Walter Crane, whose work in the *Baby Opera* and other charming picture toy books, has made him famous among all nursery amateurs of good taste. The December number has ninety-six pages with fifty-seven illustrations, and the publishers tell us they have printed 100,000 copies, and are going to make happy—we think it's a million children. The frontispiece is a copy of Ittenbach's beautiful picture, *The Holy Family*. Longfellow has a poem, *The Three Kings*, and Bryant has also a poem, *The Mocking-bird and the Donkey*. Miss Alcott begins a serial for the girls, *Under the Lilacs*, and a fine portrait of Miss Alcott accompanied with a biographical sketch appears elsewhere. The boys, too, have their share of the good things, among which we notice a posthumous sketch by Theodore Winthrop, entitled *Rowing Against Tide*, and a Robinson Crusoe fairy story by Gustavus Frankenstein, *The Tower Mountain*. Indeed fairy stories seem to be relished by the *St. Nicholas* public, for here is one by that prince of story-tellers, Lewis Carroll, the author of *Alice in Wonderland*, and another by Frank R. Stockton. More sober subjects, however, receive due attention. Among other papers is one by Gail Hamilton, who disappears

on Now and Then, or the way little people used to behave and the way they do nowadays. The whole number is a rich Christmas treat, and those boys and girls who do not have a look at it have our sincere commiseration.

"THOM'S PRACTICAL NAVIGATION," fifteenth edition. This work was prepared for the use of Navigators, by Captain William Thoms, the founder of the New York Nautical School, 92 Madison street, from the numerous journals of his voyages to all parts of the world. It has been so simplified, the art of navigation, that the sailor is enabled to become familiar with the practice in the shortest space of time. The various problems in navigation and nautical astronomy are explained and illustrated by diagrams and charts, and all the questions are worked out by inspection in the simplest manner. Rules are given for the guiding of the learner, who is led from simple geography to the highest branches of the art

—We like to see the College youths taking kindly to FOREST AND STREAM. A regular perusal of this weekly record of nature will be of more real benefit to them than any number of readings of the Illiad or the Eneid. But the two will not quarrel. Educate the body and the mind, and thus produce a perfect manhood.—Shenango Valley Argus.

SAN FRANCISCO CRICKET CLUB.—The old California have reorganized their club, the new organization to be known as the San Francisco Cricket Club. The officers for the ensuing year are: President, David McGregor, Esq.; Vice-President, S. G. Foulke, Esq.; Secretary, E. Blakeley, Esq. Manager—Committee—Messrs. H. Ogilbe, A. E. Aitken and Henry Warren.

A WHISKY-LOVING CROW.—Joseph O'Connor, a retired sea captain, of Fifteenth street, Brooklyn, has a young crow which drinks whiskey as freely as water. On Saturday afternoon O'Connor called "Jack" out of a back room. The crow entered, swinging its glossy black wings and looking inquiringly around. A South Brooklyn politician offered to pay for the drinks for "Jack," and called for the best whiskey. Some old rye was poured into a glass about half filling it. The crow ran at once to it, dipped in his bill and drank all the whiskey with evident relish. Then it staggered off a few steps and dropped over on its side, uttering a caw of delight. It soon recovered itself and stalked off. Its owner said that it would get intoxicated three or four times a day, and that it seemed to thrive on whiskey.—New York Sun.

PEDESTRIANISM THAT PAYS.—For twenty-five years Michael Hines, of Lockawaxen, Pa., has served as patrolman in the employ of the Hudson Canal Company. His daily task has been to walk a round of twenty miles, and during all this time he has not missed a day. These, daily, aggregate a total of 120,000 miles, and Mr. Hines now returns to Ireland with the snug little sum of \$18,000 in his pocket. This is walking to some purpose.

DOVE SHOOTING IN LOUISIANA.—This splendid sport is unknown to all Northern and to many New Orleans sportsmen. As practiced at Bay St. Louis and Mandeville, it is most exciting and puts the skill of the most expert wing shots to the highest test. The writer recently enjoyed a morning's shoot at the former place. These doves are not the solitary sooting turtle doves of the West and North, which are emblems of innocence. They are the ground doves, peculiar to the South, and are a magnificent game bird, as delicious upon the table as swift upon the wing. It frequently flies in small flocks of from five to a dozen, but it often comes darting through the pine tops singly or in pairs. They commence their flight at daylight from east to west along, over and through the tops of the trees that skirt the lake shore in front of the town. At the grayest dawn the "passee" opens and the rattle begins from the breech-loaders of sometimes twenty and sometimes fifty sportsmen stretched in a skirmish line along the beach for a mile at least.

The incessant firing resembles the beginning of a battle. Every passing dove has to run this gauntlet, and so fleet is their flight that a single bird often escapes fifty separate succeeding shots without the loss of a feather, and sails on defiantly to the land of the setting sun. This flight and firing lasts for several hours, when the sport is over for the day. Very expert shots will often make enormous bags, but novitiates frequently fire seventy or eighty shots without bringing down a bird. It is most perfect sport, on dry ground, right in town. There is no fatigue, no following a dog through brush and briars, or getting wet in a blind or marsh. The old Marigny plantation, near Mandeville—now in the hands of Mr. Nott, of the board of health, who is an ardent sportsman—is the choicest spot in the country for this kind of shooting. Two young men recently killed twenty-five dozen doves there in one morning. But this was exceptional.—New Orleans Times.

MESSRS. TIFFANY & CO., UNION SQUARE, NEW YORK City, have made extensive preparations for the approaching HOLIDAYS.

Their Stock of Diamonds, Watches, Jewelry, Silverware, Bronzes, Pottery, Stationery and Fancy Articles, is the largest and most varied in this country, and includes novelties from abroad and choice goods of their own manufacture, not to be found elsewhere.

A special department has been organized for sending goods to persons at a distance from New York, and any one known to the house, or naming satisfactory references, can have careful selections sent for inspection.

They have lately published a little pamphlet containing a condensed account of each department, and lists of articles appropriate for presents, which they will send to any address on request.

### Piper Heidsieck

AND PIPER "SEC."



For Sale Everywhere.

JOHN OSBORN, SON & CO., 45 Beaver street, New York, and 44 St. Sacramento street, Montreal, GENERAL AGENTS.

Oct 11

### The Eclipse Loader

Saves time and labor in loading shells. Sixteen charged at once; \$3, with liberal discount to the trade. Send for circular.

TODD, SCHENCK & CO., Nov 20 to 84 W. Lombard St., Baltimore, Md.

### Williamson & Co.,

569 BROADWAY, N. Y. (formerly 317 Broadway.)

Kentucky State Single Number Lottery DRAWING NOVEMBER 30.

5,550 prizes, \$200,000. Capital prize, \$50,000. Tickets \$10. Halves, \$5. Quarters, \$2.50. Eighths, \$1.25

MANAGERS' EASTERN AGENCY—Williamson & Co., 569 Broadway, corner Prince St. New York. Nov 15.

### CAMP LOUNGE CO., TROY, N. Y.

Valise Lounge, \$5 to \$8. Trade discounts. Free Circulars. Pillows and Marquette Ber Canopy with every Lounge and Cot. Valise Cot, Price \$10. Spreads 6 ft. x 9 ft. Jointed Tent Poles: 6 ft. poles, \$3 per set; 9 ft. poles, \$4 per set. Branch Offices—1 Cortlandt St., N. Y. City; 13 Faneuil Hall Square, Boston; 12 Calle Tejadillo, Havana; 416 Sansome St., San Francisco Agents wanted. 1212 cow

## NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

MADE OF BROWN VELVETEEN.

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horse Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$4.50. Also the best brown corduroy pants at \$10 per pair. I make only the one grade, as the cheapest goods do not turn brains and will not give satisfaction.

Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsman who have seen it say it is The Best Yet. Coat, \$4.50. For full Suit, \$14.00. I also make the Sleeveless Coat; Vest with sleeves if desired. Rules for measurement and samples sent upon application.

F. L. SHELDON, Rahway, N. J.

For Sale by Dealers in GUNS and SPORTSMEN'S SUPPLIES.

## HENRY C. SQUIRES, No. 1 CORTLANDT STREET,

THIRD DOOR FROM BROADWAY.

Winner of the Manx Silver Cup in 1876, presented by Mr. Purdy, beating all best London makers.



Winner of London Gun Trial, 1875, beating 103 guns.

AGENT FOR THE Celebrated Prize Guns OF W. W. GREENER.

These guns have been winners in every trial during the last three years, competing with all the first-class makers in England. The shooting of every gun is guaranteed, and prices as low as consistent with good work. Guns built to exact order of sportsmen. I keep the best selected stock of guns by all the other makers to be found in this city, including Scott, Webley, Remington, Parker and Fox. Marshall's new Class Ball Trap, \$5; three traps, \$12. English chilled shot, all sizes and in any quantities. Agent for Dittmar powder. Complete outfits for hunting and camping. Best Breech-Loader ever offered in the United States for \$35. Wholesale Agent for Holbird's Shooting Suits, and Camp Lounge Company.

## Capt. Bogardus' Patent Glass Ball Trap and Rough Balls.

These Traps and Balls patented by Bogardus and used by him many thousand times, proves them to be just what is wanted by all

SPORTSMEN'S CLUBS AND AMATEURS.

The balls have a roughened surface, by means of which glancing of shot is prevented. A ball once hit will surely break. They are uniform in size and weight. Every ball marked. "Patented April 10, 1877," traps, "March 13, 1877," W. & C. SCOTT & SONS have ordered 10,000 balls and 24 traps to be sent to England.

HEADQUARTERS FOR BALLS,

HAGGERTY BROS.,

19 PLATT STREET.

FOR TRAPS, GEO. E. HART & CO., NEWARK, N. J.

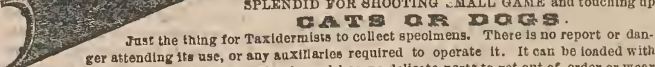
PRICE, BOXED, WITH DARTS, SLUGS,

TARGETS, &c., \$10.

FULL NICKEL PLATE

\$12.

SEND FOR CIRCULAR.



Just the thing for Taxidermists to collect specimens. There is no report or danger attending its use, or any auxiliaries required to operate it. It can be loaded with ease and rapidly. It is extremely simple, and has no delicate parts to get out of order or wear out. For sale by the Trade generally. Sent upon receipt of price or C. O. D.

H. M. QUACKENBUSH, Patentee and Mfr, Herkimer, N. Y.

## Hart's Sportsman's Favorite Metallic Shells. FOR BREECH-LOADING SHOT GUNS.

These Shells are easily loaded, and the caps easily extracted from inside. Head solid and much thicker than any Shell now made, giving a solid seat for cone or anvil, which prevents it from driving through or springing away, thereby causing miss-fires. The Cone is made of nickel, and fastened solid in its place. Neither mist nor corrodes fast, like movable anvil made from steel. The Nickel Cone also prevents miss-fire when a cap has been left on shell for a few days, which is liable to occur either in steel or iron. These Shells are finely finished, and made any length ordered, from 2 1/2 to 3 1/2 inches. Shells and Loaders and Descriptive Price-Lists can be obtained from all the leading Sportsmen's Houses throughout the country. GEO. E. HART & CO., Newark, N. J.

FROM CAPTAIN BOGARDUS, CHAMPION WING-SHOT OF AMERICA. Messrs. GEORGE E. HART & CO.—Gentlemen: The fifty Shells I received from you to-day suit me better than any I have ever used. They are stronger and better in every respect, and I shall use them in all my shooting hereafter. Yours truly, A. H. BOGARDUS.

## HUBER & MERWIN'S CHAMPION BALL TRAP.

We call the attention of the fraternity to the above trap, claiming to be the *me plus ultra*. It combines compactness with durability, and is arranged by a swivel on the bed-plate, to throw a ball in any direction or at any elevation unknown to the shooter, a screen preventing his seeing the direction in which the trap is set.

The spring, as the ont will show, is made of a steel rod or wire, bent spirally at the point of attachment, thus receiving the concussion of its entire length, and preventing breakage.



PRICE \$10. FOR SALE BY

BARTON & CO., Sole Agents,

237 BROADWAY, NEW YORK.

This certifies that I have used every trap in market, and find the CHAMPION GLASS BALL TRAP, for durability and perfection of its operation, superior to them all, and take pleasure in recommending the "Champion" to sporting clubs and my friends. (Signed) IRA A. PAINE, Aug 17

# NICHOLS & LEFEVER, MAKERS OF FINE GUNS

CATALOGUES SENT ON APPLICATION.

## SYRACUSE, N. Y.

Long-Haired  
pleto P. 11

### The Kennel.

FOR YOUNG COCKER SPANIEL STOCK FROM the choicest breeds. Bred by M. P. McKOON, dec26-17 Franklin, Del. Co., N. Y.

FOR SALE, when eight weeks old, six puppies out of my blue belton setter Mell, by Bob Boy. They are black and white. Two of them are black, white and tan, and are almost perfect images of their sire. For particulars, address L. F. WHITMAN, 5 City Hall, Detroit, Mich. je23 17

FULL-BLOODED—Two Irish setter bitches, four months. Sire of pups, Don, imported from J. C. Cooper, of Limerick, Ireland, by C. H. Turner, Sec. Nat. Kennel Club, St. Louis, Mo.; dam, Connies, by Rodman's Dash, One Gordon bitch, eighteen months old; hunted this fall, staunch on quail and very fast, with good nose; will make a good one. One Gordon bitch eight months old. Full pedigree given with pups. H. B. VONDERSMITH, Lancaster, Pa. Nov22 17

### BALLARD'S FLEA KILLER!

FOR THE DESTRUCTION OF FLEAS On Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.

NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.

Price 50 CENTS per Package.

Will be sent postage paid on receipt of price-Proprietors,

LAZELL, MARSH & GARDINER, 1719 St 10 GOLD STREET, NEW YORK.

### SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped, F. O. de LUZE, 13 South William Street, N. Y., Sole Agent. For sale in cases of 112 lbs. Special terms to dealers.

### Fleas! Fleas! Worms! Worms!

STEADMAN'S FLEA POWDER for DOGS. A Bane to Fleas—A Boon to Dogs.

This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.

Price 50 cents by mail, Postpaid

### ARECA NUT FOR WORMS IN DOGS A CERTAIN REMEDY.

Put up in boxes containing a dozen powders, with full directions for use. Price 50 cents per Box by mail. Both the above are recommended by ROD AND GUN and FOREST AND STREAM.

W. HOLBERTON, 102 NASSAU STREET.

### MARSTERS' IMPROVED Horn Dog Whistle.

Cannot be Lost from the Coat. ALWAYS IN THE SAME PLACE WHEN WANTED.

Sample by mail, 50 cents. Trade supplied.

J. F. MARSTERS, 125 NASSAU ST., N. Y., AND 55 COURT STREET, BROOKLYN, Oct 12

### The Kennel.

## ST. LOUIS BENCH SHOW

AND SPORTSMEN'S ASSOCIATION, St. Louis, Mo.

The first annual Bench Show and Exhibition of the above Association will be held in St. Louis, Mo., February 19th, 20th, 21st and 22d, 1878.

Cash prizes, paid in full..... \$3,000  
Special prizes, value..... \$2,000

Cash prizes for Kennels of English, Irish and Gordon Setters and Pointers, \$100 each.  
All Setters and Pointers have 1st, 2d and 3d prizes, cash, in open classes; \$30, \$20 and \$10.  
All Setters and Pointers in free-for-all classes have cash prizes of \$50 each.

Officers of the Association—President, E. Hayden, Manager American Express Co.; Vice-President, Jos. A. Wherry, wholesale Boots and Shoes Secretary, John W. Munson; Treasurer, H. S. Brown, of Brown & Hilder, gun dealers.

Directors.—E. C. Sterling, President Hydraulic Press Brick Co.; C. Jeff. Clark, of Clark & Kennel, metal dealers; W. L. Scott, Secretary of Belcher's Sugar Refinery.

For catalogues and information address JOHN W. MUNSON, Secretary, St. Louis, Mo. Nov22 17

### EDINA KENNEL.

JESSE SHERWOOD, Proprietor, Edina, Knox County, Mo., breeder and importer of Sporting Dogs. Pointers, setters, spaniels, fox and beagle hounds. "Sancho," Imp. Pointer, stud dog; fee, \$35. See English K. C. S. B., No. 1, 1905. He is a grandson of the celebrated "Hamlet," No. 835. This dog "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874, three here.

### DOGS.

DOCTOR HENRY GARDNER, No. 146, West Thirtieth street, New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ag 217

FOR SALE—Genuine Fug Pups, three months old. Address H. P. INGALLS, Superintendent Zoological Garden, Cincinnati, O. Nov24 17

FOR SALE—A very large and handsome brace of setter pups four months old. Dog and bitch; fine stock. Colors, black and white, and orange and white. Have already pointed quail; price very low. Address, PEDIGREE, Box 463, Peckskill, N. Y. Nov29 17

FOR SALE CHEAP—An English pointer dog, liver and white color; well marked; one and a half years old. Obtained prize at Gilmore's Dog Show. Apply at 118 East 15th St. Nov29 17

FOR SALE—A handsome setter. A cross between the Field Trial and Rahan-Allen stock. This dog is well broken on quail, woodcock and ruffed grouse. Has a good nose; is staunch and obedient. Address, P. O. Box 1183, Norwich, Conn. Nov29 17

### Wanted.

WANTED—An offer for a Mllin duck gun; nine bore; length of barrels 36 inches; muzzle loader. Made for present owner; cost \$320. Warranted in every particular. Can be seen at Geneva, Chambers St., N. Y. Address, Wesley Smith, 64 St. Marks Place, New York. Nov29 17

### Hotels and Resorts for Sportsmen.

## Metropolitan Hotel,

WASHINGTON, D. C.

## Carrollton Hotel,

BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.

### THE METROPOLITAN

is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and re-furnished throughout. The cuisine is perfect; the service regular, and charges moderate.

R. B. COLEMAN & CO.

### Wild Fowl Shooting.

SPRINGVILLE HOUSE OR SPORTSMEN'S RESORT, SHINNECOCK BAY, L. I.

By a practical gunner and an old bayman. Has always on hand the best of boats, batteries, etc., with the largest rig of trained wild-geese decoys on the coast. Special attention given by himself to his guests, and satisfaction guaranteed. Address WM. N. LANE, Good Ground, L. I. News 17

### Duck Shooting at Van Slycks,

CURRITUCK CO., N. C.

Sportsmen furnished with Board, Skiffs and Steel Ducks, Good Partridges, and Snipe Shooting. Steamer Cygnus leaves Norfolk and runs direct to the house Mondays and Thursdays at 6:30 A. M. Nov24 17

### Hotels and Resorts for Sportsmen.

## HALSEY HOUSE,

ATLANTICVILLE, LONG ISLAND,

is nearer New York City than any house bordering on Shinnecock Bay. Is as near, and has as good shooting grounds, and as experienced attendants (with live geese and other decoys, batteries, etc., always on hand); nearer the station; the largest and the best kept house in the bay. L. I. RR. to Atlanticville Station, Fare \$2. Stage meets all trains, W. F. HALSEY, Owner and Proprietor. Atlanticville, L. I., Oct. 20, 1877. Oct25

### Land-locked Salmon Spawn.

THE DOBBS CLUB, on the Syracubobis Lake, in Maine, will dispose of from 50,000 to 100,000 LAND-LOCKED SALMON SPAWN if application is seasonably made, before they are too far developed to bear transportation. Many of the females from which this spawn was taken weighed 4 lbs., and the milters quite as large. Price, \$5 per thousand, delivered to Express at Winn, Maine. Apply to CUTLER DOWNER, 26 State St., Boston, Mass. Nov29 17

### For Sale.

SECOND-HAND.—A very fine Tolley breech loader, with two sets of barrels fitted to same stock; one pair 10-bore Damascus and very close shooting, other pair laminated steel and cylinder bore; weights, 9 lbs. and 9 1/2 lbs. This gun was made to order for the owner, and is very superior in every respect. Can be examined at gun store of HENRY C. SQUIRES, 1 Cortlandt street, N. Y. Nov 17

BLOOMING-GROVE PARK ASSOCIATION. One share in above association for sale at a very low price. The best Game Preserve in America. Trout, Black Bass and Pickeral fishing. Address SPORT, this office. Feb22 17

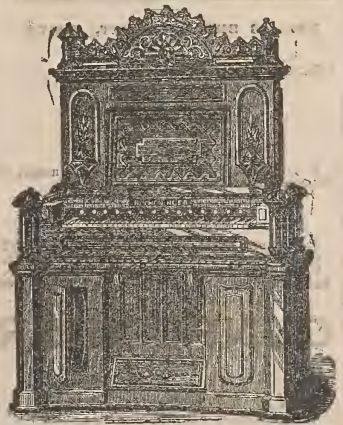
CITY AND COUNTRY PROPERTY bought, sold and exchanged. C. S. PECK, 3 West 5th street, New York. Sep27 17

FOR SALE.—One pair English Falow Deer, three months old. Address H. P. INGALLS, Superintendent Zoological Garden, Cincinnati, O. Nov24 17

FOR SALE, CHEAP.—One No. 2 Sharps' Creed-moor Rifle, as good as new. Address Box 120 Taunton, Mass. Nov15 17

FOR SALE—A F. Wesson 22 cal. rifle. Also a bolter plate target with three rings, all in good condition; very cheap. J. R. GROHMANN, 1581 Third Ave., New York. Nov29 17

## SHONINGER ORGANS.



(PRONOUNCED UNANIMOUSLY AS THE Best Instruments.

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:

"The B. SHONINGER ORGAN CO.'S exhibit was the best Instruments at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Belis, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, less liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either shrink, swell or split." THE ONLY ORGANS AWARDED THIS RANK.

This Medal and Award was granted after the most severe competition of the best makers, before one of the most competent Jurors ever assembled.

New styles and prices just issued, which are in accordance with our rule, the BEST ORGANS for the least money.

We are prepared to appoint a few new Agents. Illustrated Catalogues mailed, postpaid, upon application to

B. SHONINGER ORGAN CO., 87 to 123 Chestnut Street, NEW HAVEN, CONN.

### Sportsmen's Goods.

## DUDLEY'S Pat. Pocket Cartridge Loader.

EXTRACTS, DECAPS, RECAPS, LOADS CREASES AND TURNS OVER CARTRIDGE SHELLS,

Equal to the most expensive machines. Is adapted to both paper and metal shells. Weighs but four ounces, and is as handy as a pocket knife. In short, is just what sportsmen have been looking for.

Samples sent, postpaid, to any address on receipt of price, and if not satisfactory, the money will be promptly refunded.

Nickel-plated, \$1; polished, \$1.75; japanned, \$1.50. Liberal discount to the trade; 10 and 12-gauge now ready. DUDLEY & CO., Poughkeepsie, N. Y. Nov29 17

## A New Wad.

The "Fibro" wad will give a better penetration and pattern than Eley's wadding. It is elastic and plastic, and will hold the load securely in brass shells. Will not take fire or blow to pieces. Price per box of 250, 35 cents for No. 10 and 12, 30 cents for No. 8. Sample sent by mail on receipt of price.

### LIBERAL DISCOUNT TO THE TRADE.

## DELAWARE CARTRIDGE COMPANY

WILMINGTON, DEL.

NOW READY, THE

## Sportsman's Gazetteer

AND GENERAL GUIDE.

WITH MAPS AND ILLUSTRATIONS, 900 pp., Price, \$3.

BY CHARLES HALLOCK,

EDITOR OF "FOREST AND STREAM," AUTHOR OF THE "FISHING TOURIST," "CAMP LIFE IN FLORIDA," ETC. NEW YORK:

"FOREST AND STREAM" PUBLISHING COMPANY.

The book is a complete manual for sportsmen: It gives every sportsman the method for capturing every known game animal, bird and fish in North America.

It designates the proper charges for guns for each kind of game, the various kinds of decoys and blinds, and baits and tackle for the fish.

It gives over 4,000 localities where game and fish may be found, specifies the game found in each locality, the hotel accommodation, and the best time to get there. (The preparation of this Directory was in itself a work of great magnitude.)

It gives the scientific name and specific characteristics of each species it describes, with the habitat and breeding season of each—a most valuable contribution to science.

It describes 297 varieties of edible fish alone, that may be taken with the hook; 80 varieties of ducks; 50 varieties of snipe or waders, and the different methods of shooting each.

Its instructions for capturing large game are very minute, and the chapters on woodcraft, outfitting and camping have been pronounced by "El Cazador," of Los Angeles, California, to be simply complete.

Every kind of dog used for sport is designated, and his points for bench judgments fully given. The chapters relating to selection, breeding, rearing, breaking, care and diseases, comprise a seventh part of the volume. There are 11 prescriptions and recipes given under the revision of the best modern canine therapeutists.

It is in itself the most concise, accurate, instructive, sensible and comprehensive work ever written upon the dog and his diseases. Any physician can administer the prescriptions with perfect confidence in their safety and efficacy.

It contains very useful recipes and remedies for wounds, bites, poisons, illness, and emergencies of all kinds; for cleaning, repairing, and preserving every implement used for sport; for selection and use of every kind of boat employed by sportsmen; a reference list of several hundred books in request by sportsmen, and a directory where to buy outfitting goods.

It instructs in taxidermy, and tells how to preserve and mount specimens of animals, birds and fish.

THOMAS W. PEYTON, ATTORNEY AND COUNSELLOR AT LAW, NOTARY PUBLIC, NO. 148 BROADWAY, ROOM 20, NEW YORK CITY, All business promptly attended to. Nov24 17

Publications.

FRANK SCHLEY'S AMERICAN



Partridge & Pheasant Shooting.

Describing the Haunts, Habits, and Methods of Hunting and Shooting the American Partridge-Quail; Ruffed Grouse—Pheasants, with directions for handling the gun, hunting the dog, and shooting on the wing. Price, \$2. Liberal discount to the trade. To be had at book stores generally. Address, Frank Schley, Frederick City, Md.

Oct 11

KNOW THYSELF A new Medical treatise, "The Science of Life, or Self-Preservation," a book for everybody. Price \$1, sent by mail. Fifty original prescriptions, either one of which is worth ten times the price of the book. Gold medal awarded the author. The Boston Herald says: "The Science of Life is, beyond all comparison, the most extraordinary work on Physiology ever published." An Illustrated Pamphlet sent FREE. Address DR. W. H. PARKER, No. 4 Bulfinch Street, Boston, Mass.

HEAL THYSELF

Sportsman's Gazetteer

GENERAL GUIDE, BY CHARLES HALLOCK, Editor "Forest and Stream and Rod and Gun."

896 pp., Price \$5. Tinted Paper, \$4; half-bound mo., \$5.

A complete Dictionary for Sportsmen. Everybody wants it that has a dog, gun or fishing rod. A complete description of all kinds of Game, Fish, etc. Field Sports, Woodcraft, Angling, Fly Tying, Dogs, Dog Breeding, Diseases and Treatment, Boating and Boat-building. Several thousand localities where game and fish are to be found. Nothing of the kind ever before published worth ten times the price.

PUBLISHED BY FOREST & STREAM PUBLISHING CO. 111 Fulton street, New York.

GAME LAWS—New York, New Jersey, Penna., Delaware and Maryland. Pocket edition. Contains useful information for sportsmen. Sent by mail upon receipt of price—5 cents. FISHER & VAN ZANDT, No. 200 Walnut Place, Phila.

Sportsmen's Goods. FLORIDA OUTFITS.

Send 10 cents for illustrated catalogue of SHOOTING, FISHING and CAMPING GOODS, with hints and directions for camping, shooting and fishing. Bogardus' rules for glass ball shooting, etc., etc.

SOLE AGENT FOR GOOD'S MOCCASINS.

DUNKLEEF'S CAMP STOVES—BOUDREN'S JACK, DASH AND FISHING LAMPS—TENTS, PORTABLE BOATS, LOUNGES AND BEOS—THOMSON'S SHOOTING SUITS AND SHOEPACKS.

AGENT FOR FOX GUNS.

The N. Y. Shooting Suit, very soft and pliable; waterproof, and made in the best manner. This suit, on examination, will be found of a superior quality. Same bag, with pockets for cartridges, \$2. A cheap coat, with same pockets, for \$2.50.

AGENT for the CELEBRATED SWEDISH WATERPROOF LEATHER JACKETS.

Made of sheepskin and soft as kid. Strongly recommended to sportsmen, travelers, gentlemen driving on the road, etc. Scarcely weigh two pounds, and answer the purpose of a heavy overcoat. Price \$16.

Holberton's Fly Rods, \$5 and upwards; every one warranted. Holberton's Fly Rods, Helberton's Fly Rods, Florida Spinning Bait; made particularly for Southern trolling. Also the best flies for Florida fishing.

A long experience in shooting and fishing and outfitting warrants me in stating that sportsmen can rely on getting the proper articles necessary for their sporting trips in any part of the United States and Canada.

Ammunition of all kinds, including Curtis & Harvey's Diamond Grain Powder.

AGENT FOR N. Y. CLUB SKATES.

No sportsman should be without "THE SPORTSMAN'S DIARY AND NOTE-BOOK," Blank Books for all kinds of shooting. Rules, etc., bound in leather;—a handy size for the pocket. Sent on receipt of 50 cents.

Send no money by mail; remit by draft or P. O. order.

W. HOLBERTON'S SPORTSMEN'S EMPORIUM, 102 Nassau St., N. Y.

Gunpowder.

Warren Powder Mills,

MANUFACTURERS OF BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS—Bureka, Continental "Border Rifle," Snap-Shot, and Warren Sporting Cannon and Musket, U.S. Standard. The above can be had of the dealers, or at wholesale at the office, 27 Doane street, Boston, Mass., and of the agents, JOHN P. LOVELL & SONS, corner of Washington, Cornhill and Brattle streets, Boston, Mass. jy19

HAZARD POWDER CO. MANUFACTURERS OF

GUNPOWDER.

Hazard's "Sea Shooting" Gunpowder. Nos. 1 (fine) to 6 (coarse). Unsurpassed in both strength and cleanliness. Packed in square tins of 1 lb. only.

Hazard's "American Shooting" Gunpowder. Nos. 1 (fine) to 3 (coarse). In 1 lb. cans, 5 and 6 1/2 lb. kegs. A fine grain, quick and clean, for upland prairie shooting. Will adapt to shot-guns.

Hazard's "Duck Shooting" Gunpowder. Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. cans and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and is equally serviceable for muzzle or breech-loaders.

Hazard's "Kentucky Shooting" Gunpowder. FFG, FPG, and "Sea Shooting" PG, in kegs of 25, 12 1/2 and 6 1/2 lbs. and cans of 5 lbs. FFG is also packed in 1 and 1/2 lb. cans. Burns strong and moist. The FFG and FPG are favorite brands for ordinary sporting, and the "Sea Shooting" PG is the standard rifle powder of the country.

Superior Mining and Blasting Powder. GOVERNMENT CANNON & MUSKET POWDER; ALSO, SPECIAL GRADES "OR EXPORT" OF ANY REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER.

The above can be had of dealers, or of the Company's Agents in every prominent city, or wholesale at our office, 88 WALL STREET, NEW YORK.

THE

New Dittmar Powder.

THE CHAMPION POWDER OF THE WORLD For all off-hand shooting at short and long ranges. Unsurpassed for Cleanliness. Pleasant to shoot on account of little recoil and report. Desirable for hunting on account of little or no smoke. Unequaled for rapid firing, as it does not foul and heat up the barrel as black powder. Great accuracy, penetration and good pattern. Safer than black powder. Address CARL DITTMAR, NEPONSET, MASS.

ORIENTAL POWDER MILLS MANUFACTURERS OF ALL KINDS OF GUNPOWDER

Office—13 BROAD STREET, BOSTON.

BRANDS—DIAMOND GRAIN. FALCON DUCKING. WILD FOWL SHOOTING. WESTERN SPORTING. (Oriental Rifle.)

The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES. J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. Cobb & Wheeler, Agents, 22 State St., Chicago, Ill. C. J. Chapin, Agent, 252 South St., St. Louis, Mo. Agencies in the principal cities in the United States.

GUNPOWDER

DEAD SHOT, NE PLUS ULTRA, TELEGRAPH, DUCK SHOOTING.

The above celebrated Brands are manufactured by the AMERICAN POWDER CO., 233 State Street, Boston.

GENERAL WESTERN AGENTS E. B. RAMBO, Chicago, Ill. F. G. GODDARD, St. Louis, Mo. M. BARE & Co., Cincinnati, O. Oct 4

N.Y. Newspaper Mailing Agency

With the latest Improved Newspaper Folding and Mailing Machines, No. 13 Spruce street. JAMES BRAD Y., Manager and Proprietor

Sportsmen's Goods.

THE "Boston Shooting Suit"

Is manufactured only by G. W. SIMMONS & SON, BOSTON.

Flexible, Waterproof, Tan-Color, Duck.

Each article—coat, trousers, vest and hat—have the name and manufacturer's address stamped upon it, and no suit is genuine without it bears this imprint.

The suit can be sent, securely packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit.

We make but one quality, and that is the VERY BEST. The price of the suit complete is \$13.

The suit consists of coat, trousers, vest and choice of either cap with havelock, or hat.

The material is of the best quality of duck, waterproofed by a patent process. The color is that known as "dead grass shade."

The seams and pocket corners are copper riveted, and nothing is neglected to make the whole suit complete in every way.

This is what one of our best sportsmen says of it, writing from camp: "Miserable, drenching rain, pouring down in a perfect deluge, as if a second flood had come upon the earth, two portages to cross, and a swamp between them; that was the prospect before we reached our camping ground. Such a swamp, too; almost impassable, for where the ground was firm was almost impenetrable thicket of thorns and what not, that looked as if it would tear you to pieces. Well, we got to our camp, and I must confess as I was agreeably surprised on my arrival. Although I had been nearly eight hours under incessant rain, laboring and striving along under the adverse circumstances above mentioned, yet I found myself comparatively dry, and my clothes without a tear. For the benefit of our brother sportsmen, let me advise one of Messrs. Simmons' (of Boston, Mass.) Waterproof Suits. Oh! what a relief it was to find one's tobacco was dry, and that one could light a pipe; that you could laugh at your miserable friend, who stood shivering and shaking as if he had the palsy; and then, next morning, oh! what fun it was to see him mending his clothes, while I had not a tear to complain of, Ventilation, also, that great bugbear of waterproof suits, is legislated for in the most ingenious manner. No sportsman should fail to supply himself with a suit which is at once cheap, practical, and will last an almost indefinite time."

Our New Overcoat—The "Plovna,"

Water-proof, Mildew-proof and Moth-proof, is attracting great attention. It is made and sold only at Oakhall, Boston. The price is \$12.

It is a long overcoat made to wear to cover, or when driving or walking in stormy weather. It is perfectly waterproof, thoroughly ventilated, and just the garment that every sporting man should have.

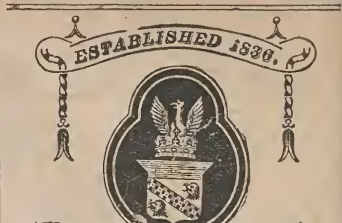
Our Leather Jackets and Vests are the great wind protectors. They are made from soft, pliable black leather, fannel lined, and sell at \$9 and \$7.

Our Flexible Tan-Color Waterproof Leather Coats and Breeches are considered the finest things ever made. They sell at \$22 and \$15.

An illustrated circular, containing full description of each garment, with sample of the material from which made, will be sent free on application.

Address G. W. SIMMONS & SON, OAK HALL, BOSTON, MASS.

Sportsmen's Goods.



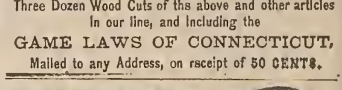
J. F. Ronan & Co. JEWELERS AND SILVERSMITHS, HARTFORD, CONNECTICUT.

DEALERS IN Diamonds, Silverware, Watches, Jewelry, etc. IMPORTERS OF FRENCH, GERMAN, AND ENGLISH FANCY GOODS.

SPECIAL ATTENTION GIVEN TO THE MANUFACTURE OF APPROPRIATE DESIGNS FOR Shooting, Boating, Racing, and other Prizes.

OUR ILLUSTRATED CATALOGUE,

CONTAINING Three Dozen Wood Cuts of the above and other articles in our line, and including the GAME LAWS OF CONNECTICUT. Mailed to any Address, on receipt of 50 CENTS.



Ronan's Metal Shell Cleaner.

Cleans fifty shells in ten minutes. No water used. Knives elastic, self-adjusting, prevent the slipping of wads. Is unequalled as a wiper by covering with an oiled cloth. For sale by all gun dealers, or sample sent free by mail on receipt of price, \$1.50; 10 and 12 bore. J. F. RONAN, 788 Shawmut Avenue Boston, Mass. Liberal discount to the trade.

25 Fashionable Cards, no 2 alike, with name loc. post paid. GEO. I. REED & Co., Nassau, N. Y. Oct 4

Sportsmen's Routes. HUNTING

FOR DEER, BEAR, PARTRIDGES, DUCKS, Take the Grand Rapids and Indiana Railroad.

FISHING

FOR WAKE, PICKEREL, BASS, ETC., Follow the G. R. and I.—The "Fishing" Line

Time, New York to Grand Rapids, 37 hours.

EXPENSES LOW.

Shooting season expires December 15. For information as to routes, rates and best points for the various kinds of game, etc. Apply to A. B. LEET, Gen. Pass. Agent, Grand Rapids, Mich. Eastern Agent, 116 Market St., Phila., Pa. Nov 22

ONLY DIRECT FLORIDA LINE.

For Fernandina, Fla., Port Royal, S. C., and Brunswick, Ga.

Sailing every FRIDAY from Pier 20, E. R., at 3 P. M.

Close connection made with the M. and B. and B. A. Railroads at Brunswick, and the P. R. R. R. at Port Royal; also with the steamer Carlie (which has been refurnished), at Fernandina for Jacksonville and the St. John River.

For through rates of freight and passage, apply to G. H. MALLORY & CO., Agents, 153 Maiden Lane, Nov 29 4m NEW YORK.

FOR ST. AUGUSTINE, FLA., DIRECT.

STEAMER TO NASSAU, N. P., BAHAMAS. Steamship San Jacinto from Pier 16 E. R., Dec. 8, and thereafter, from Savannah, every two weeks, for St. Augustine and Nassau.

FOR NASSAU DIRECT.

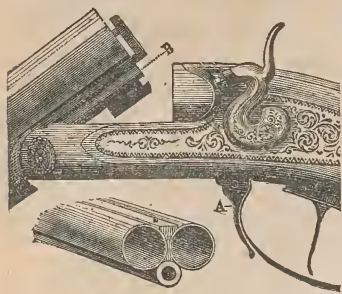
Steamship Carondelet, Dec. 4 and January 2, and monthly thereafter. For all particulars, illustrated guide, &c., apply to MURRAY, FERRIS & CO., No. 62 South St.

FOR NEW SMYRNA, FLORIDA.

Schooner Surprise, Capt. J. E. Springer, will sail for New Smyrna, Mosquito Inlet, on or about Dec. 15, 1871. For further information of Passage and Freight, inquire of FERGUSON & WOOD, No. 46 South St., New York, Nov 29 3u



Guns, Rifles, Etc.



THREE BARRELED Breech-Loading Guns. (TWO SHOT AND ONE RIFLE.)

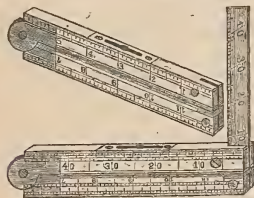
A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

- Three barrel, \$75 to \$250. Double barrel shot guns. Damascus barrel, \$50 to \$200. Twist barrel, \$35.

SEND FOR NEW CIRCULAR.

W. H. BAKER & CO., Syracuse, N. Y.

E. THOMAS, JR., GUNS, PISTOLS, SPORTING GOODS, 174 South Clark Street, Chicago, Ill.



THIS IS A Foot Rule, Level, Square, Plumb and Inclinator.

It may be used for leveling stands for rest shooting, and gives at once the degree of elevation and pitch to the foot. As a specimen of workmanship, it is faultless, and is strong and durable. So great is our confidence in its merits that we hereby agree to refund its cost in every case where perfect satisfaction is not given. Sent by mail on receipt of \$2.50 STEPHENS & CO., Riverton, Conn. Nov 17

Fishing Tackle.

H. L. LEONARD, BANGOR, MAINE.

Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty

Great reduction in prices. Trout rods, full mounted, \$80, formerly \$50; other rods in proportion.

Every Rod bearing my name is six strands from bait to extreme tip, and mounted with my "patent waterproof ferrule," and warranted against imperfections in material and workmanship.

Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancewood. MADE TO ORDER.

I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods.

Also manufacturer of Patent Reels for Salmon and Trout fishing. The lightest, strongest, and handsomest Reels ever made.

Full line of FISHING TACKLE always on hand.

Send for circular and price list.

167

Lessons in Fly Tying.

I will guarantee to teach any gentleman the art of dressing flies in a few lessons. Address JOHN HAILY, 320 Henry Street, New York City.

Filles tied to order from any pattern. Nov 17

Amusements, Etc.

Zoological Garden.

FAIRMOUNT PARK, PHILADELPHIA.

Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 17

THE GREAT NEW YORK AQUARIUM, Broadway and 35th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments.

SHELLEY'S PRAIRIE OIL.

The Great Natural Remedy

FOR ACUTE AND INFLAMMATORY RHEUMATISM, GOUT, SCIATICA, LUMBAGO, and Severe Cases of Bodily Pain. AN INFALLIBLE CURE.

Innumerable Testimonials from prominent citizens as to the wonderful curative properties of Prairie Oil will be furnished on application.

PRICE FIFTY CENTS, ONE AND TWO DOLLARS PER BOTTLE.

SENT BY EXPRESS ON RECEIPT OF PRICE.

Manufactured by "THE PRAIRIE OIL CO.," 132 Nassau St., N. Y. (P. O. BOX 2,907.) AND SOLD BY DRUGGISTS GENERALLY.

"About two years ago I was first attacked with Rheumatic Gout, and after intense suffering and great expense from medicine and doctors' bills, without obtaining relief, I procured Prairie Oil, and in less than three days after the first application was enabled to walk to my office, a distance of three miles, although previously confined to my room for nearly five weeks. From that time to the present I have never been without the oil, nor have I ever applied it in vain, notwithstanding so long a trial. My family use it for any of the common ailments it is intended for, and consider it invaluable. H. F. WILBARTINE.

Mr. M. PADDON, tobacco merchant, 592 Fulton street, Brooklyn, lost the use of his right leg by Sciatica, got relief at once after first application of PRAIRIE OIL. This gentleman had become so depressed by his affection that he had given up all hopes of recovery.

Says the Proprietor of Niblo's Garden, New York: "PRAIRIE OIL gave me relief from inflammatory rheumatism after first application; and after the third I had no further use for my cane."

Mr. KENWARD PHILL, Dramatic Editor Brooklyn Eagle, Brooklyn, was unable to walk without the aid of crutches, owing to a severe attack of Rheumatism. After the third application of PRAIRIE OIL the crutches were thrown aside, he having no further use for them.

DON'T PASS THIS BY.

STODDARD'S CARTRIDGE-LOADING IMPLEMENT, COMBINING ALL OTHER TOOLS AND FOR ALL SHELLS.

Length, 4 1/2 inches; weight, 10 ounces, and nickel-plated. Price, \$6.

Recommended by FOREST AND STREAM AND ROD AND GUN, Boone, Recapper, Will Wildwood, Ira A. Payne, and others. Liberal discount to the trade. Send postal order to

C. J. STODDARD & CO.,

Lock box 192, Washington, D. C.

IRA A. PAINE'S CHAMPION FILLED GLASS BALL.

PATENTED OCTOBER 11.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the services of that well-known sportsman, IRA A. PAINE, to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell.

We can give the sportsman of America no better proof of the superiority of these balls than that W. & C. Scott & Sons, after examining every ball in the market, have ordered 2,000 to be sent to England. In no instance where it has been exhibited has it failed to take the place of all others.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 800 and boxes of 500. Send for price list. Special inducements to the trade.

HEADQUARTERS BOHEMIAN GLASS WORKS, 214 Pearl Street, N. Y.



THE GREEN GUN has the simplest and strongest construction made. The proportions and finish, the shooting qualities for penetration and pattern, are not excelled. Can bore to make any pattern ordered, from a cylinder to a full choke.

Muzzle-loaders altered to breech-loaders, with same action as new guns. Barrels bored to shoot close and strong. In the very best material. Aug 30

Price \$45. Re-boring and repairing breech-loading shot-guns done promptly and net. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y.

THE UNITED STATES CARTRIDGE COMPANY, LOWELL, MASS.

Manufacturers of the

CENTRAL FIRE, SOLID HEAD, BRASS SHELL, RE-LOADING CARTRIDGE,

Used by the Army and Navy of the United States and several Foreign Governments. All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.



Handiest gun case manufactured; made of heavy bridle leather, and in best style; can be carried same as a satchel every where; price \$6. Sent by express C. O. D. Also made of heavy waterproof canvas, lined with flannel; price \$2; sent by mail, postage prepaid. Address THOMSON & SON, 301 Broadway, New York. P. O. Box 1,016.

UNION SQUARE HOTEL,

UNION SQUARE, Corner 14th Street, New York.

A. J. DAM & SONS, Proprietors.

C. M. BRENNAN,

OLD KENTUCKY BOURBON & MONONGAHELA,

40 South Clark Street, Chicago.

Sportsmen's Goods.

W. H. HOLABIRD, Manufacturer of

Specialties in Clothing FOR SPORTSMEN.

Valparaiso, Ind.

Shooting Suits complete, including Coats, Vest, Pants and Cap, \$10. Shooting Coats waterproof and first-class in every particular. Mail, post-paid, \$6.

Holabird's New Game Bag; weighs 12 lbs. The most convenient and coolest garment offered to Sportsmen. Can be used in place of coat; room for 50 shells and 75 snipe or quail; by mail for \$2.

Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style. Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods. j12 11

Sportsmen, Attention!

KEEP YOUR FEET DRY.



The only premium awarded by the Centennial Commission, Philadelphia, 1876, for Alligator Waterproof Boots and Shoes.

Goods sent to all parts of the U. S., C. O. D.

Catalogues containing full instructions for self-measurement sent free on application.

503 Broadway, New York.

GOOD'S OIL TANNED MOCCASINS.



The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine article. Send for illustrated circular. MARTIN S. HUTCHINGS, P. O. Box 368, Dover, N. H. (Successor to Frank Good.)

W. HOLBERTON, 102 Nassau St., N. Y., Agent.

Founded July 4, 1838



Thos. W. Sparks,

Shot & Bar Lead MANUFACTURER.

Office 121 Walnut Street, Philadelphia.

Magic Lanterns and Stereopticons.

E. & H. T. ANTHONY & CO., 101 Broadway, N. Y., opposite Metropolitan. Stereoscopes and Views; Graphoscopes, Chromos and Frames; Albums, Photographs of Celebrities, Photographic Transparencies, Convex Glass, Photographic Materials. Awarded First Premium at Vienna and Philadelphia. Dec 25

Sportsmen's Headquarters

FOR WINES, LIQUORS AND CIGARS.

Outfits for yachting. The camp or field specialty. Olives by the case, gallon or bottle.

THOS. LYNCH, IMPORTER,

99 NASSAU ST., Bennett Building, New York. Sep 17

These of the pe Salmo sal. Europe. merged into ania and New ill be more libel ofore, in view of tems to be crowned

SALMON IN 1852 IN THE STREAM—I found a newspa 852. June.—A salmon is caught in the Su. I think that

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

NEW YORK, THURSDAY, DECEMBER 6, 1877.

Volume 9.—No. 18.  
[No. 111 Fulton St., N. Y.]

For Forest and Stream and Rod and Gun.  
JACK.

COME, Jack, let's have a show,  
Act like a little man;  
As dog you're something more, you know,  
Than black-and-tan.

That's it, now sit straight up,  
You bark, and I'll translate;  
We'll prove there's one knowing pup,  
As sure as fate.

Shake hands. Ah, that's the style!  
It pays to be polite;  
You'll find it always worth your while,  
To black or white.

Now tell how old you are?  
Two barks—hat means two yearz—  
And for your age you're quite a star,  
As now appears.

How does the beggar go—  
The undeserving imp  
That stole your meat and bread, you know?—  
That's just the limp,

From man to man he'll beg,  
And lie to every one,  
Until you bite his wooden leg,  
That makes him run.

How do the ladies go?  
Well, Jack, that's just the way;  
They wriggle and twist to catch a bean,  
And love a day.

What says the candidate?  
A long-drawn bark and growl;  
That means they talk about the State,  
And make "Rome howl."

How does the coward act  
When he begins a fray?  
Like that, he turns with wondrous tact,  
And sneaks away.

What does the man of grit,  
When serious times begin?  
You're right, he never backs a bit,  
But goes right in.

Now, Jack, we're through to-day,  
Just tell me if you like me?—  
A lively leap and bark, and they  
Mean yes, sir-ee!

You may well say he's smart;  
His life's an honest deal;  
All ought a dog, his little heart  
Is true as steel.

Ah, Jack, if we could trust  
The world as I trust you,  
No man to man would be unjust,  
No love untrue.

J. C. BURNETT.

For Forest and Stream and Rod and Gun.

### Etchings from the East Coast of Florida.

BY THOMAS SEDGWICK STEELE.

NEW SMYRNA, on Mosquito lagoon, east inland coast of Florida, contains about five or six houses. The town was settled in 1767 by fifteen hundred Minorcans under one Dr. Turnbull, but through his brutality, and the colonists not being dealt with according to contract, they abandoned the settlement, and located in and near St. Augustine, where their descendants now reside. The town was named New Smyrna, in compliment to Turnbull's wife, she being a native of Smyrna, Asia. The Minorcans cultivated annually immense quantities of indigo. Sauntering out through the palm groves, I discovered two old tombs, supposed to cover the remains of Spanish noblemen. For miles around the country is drained by deep and well formed canals, the only permanent monument to Turnbull's activity. They are almost as perfect as when first constructed, and drain large swamps in the vicinity to the lagoon, or Hillsboro River, as it is sometimes called—the upper part of the lagoon being Hillsboro River.

About two-thirds of all the visitors to Florida return down the St. Johns River after reaching Enterprise, but further up the river, or inland, are greater delights, and only through the means of "camp life" does one really enjoy this beautiful country.

The unfortunate state of the road (thirty miles in length) lying between Enterprise and New Smyrna, debarms many from leaving the highway of travel, but once over the difficulties, one is well repaid for the undertaking.

By the means of a team of mules and a rough box wagon, containing our guns, rods and camp equipage, we started from Enterprise for New Smyrna early one morning, and of all the roads we traveled while in Florida, this would have taken the first prize for wretchedness. It had recently rained, and it would be safe to say that more than one-half of the road was under water. Frequently, as far as we could see backward and forward, the water covered the road, reaching to the hubs of the wheels, and sometimes to the floor of the vehicle, while about us were the gloomy pines of the southern forests. At short intervals the path was sandy, and then we jumped out and rested our limbs by walking, for the wagon was only just able to accommodate our trunk, which we used also for a seat, hanging our feet over the sides. Our dog occasionally came to a "point" on quail, but the thick undergrowth of palmetto and Spanish bayonet plants forbade us to follow; besides, it soon commenced to rain and we hastened on our journey.

Just before entering New Smyrna the road passes through a large grove of palm trees, their long, graceful leaves entwining above, and overhanging the path. Pleased with this display of tropical foliage we moved onward, and soon drew up at Lowd's Hotel, and were welcomed by about a dozen lovers of the rod and rifle, who, clad in hunting suits of various colors, were grouped around a blazing fire on the hearth, the mercury still standing at 50 degrees. This hotel and its accommodations, we can safely say, is the most homelike of any it was our good fortune to meet while in Florida (Jacksonville excepted), and for the friends of out-door sports, offers facilities not to be found elsewhere. The hotel is a large two-story house, the garden in front reaching down to the lagoon. The table is well kept, "hog and hominy" not being the principal dishes, and everything from beefsteak down is not fried, which cannot be said of all the hotels on the St. Johns River.

Fine oysters in every style of cooking, venison, turtle steak and soup, quail, a great variety of fish, to make no mention of that rare article, good bread and butter. The board is only fifteen dollars a week. Mr. Kirby Lowd, the proprietor, always accommodating, and there is not that desire to reach one's "bottom dollar" evinced by hotel keepers and steamboat men in the interior portions of the State. At Enterprise oranges cost the tourist fifty cents a dozen, but the same fruit was brought over to this place by some "underground railroad," and sold for thirty cents a dozen, very few being raised on the place. A number of the sportsmen's wives were stopping at the house, and the whole place had an air of true comfort. But communication by means of sail boats with St. Augustine (or civilization) is more frequently resorted to than by the above mentioned route.

New Smyrna was shelled and burnt repeatedly by our gunboats during the late war, and the rebel earthworks still remain, while on the wharf, dismantled, lies a small cannon, stamped "Chicopee, Mass." which was used in the siege. Mr. Lowd, the proprietor of the hotel, after having his house burnt over his head, retired with his family some three miles to the country, and on lighting his first fire was shelled out of his temporary encampment. He afterward served as colonel in the confederate army.

Excellent fishing can be had at this place. Sea bass, turbot, drum fish, to say nothing of the excitement of shark fishing, and one of our party caught in two hours twenty-five of that savory fish called sheepshead, one day being considered great luck on our northern coasts. Boats and guides are to be had without trouble, while any article wanting in one's accommodations is readily supplied by the ever-generous sportsman. Deer are to be had on many of the islands in this vicinity, and are "jumped" by hounds, the deer being "flushed" in the same manner as birds. We enjoyed one day of raccoon hunting; the last animal captured having a lively fight with our dogs.

Of all the undergrowth over which a sportsman is obliged to travel, Florida will take the foremost rank. What with cactus, Spanish bayonet plants, to say nothing of shrub palmettoes, our clothing after the hunt appeared as if it had been cut with the sharpest of knives.

We shall remember for a long time our quail hunt in the saddle, for in this way a greater part of the shooting is accomplished. Our heavy Mexican saddle was surmounted by a big pommel, and drove a close competition to the size of the horse, leaving but little of him in sight. The bridle was composed of stray bits of various colored leather, tied together with string, and the reins were of rope, while with our feet, almost touching the ground, we set off on our hunt. Did the reader ever attempt to carry a gun in the saddle for the first time, with the horse on a lively gallop? We thought it would be easy, but somehow the barrels and stock grew longer and heavier at every jump of the animal. We carried it over our shoulder, then under our right arm, until we were able to take oath to the exact number of bones and muscles each contained. Across the pommel was of course the place to rest it, but the extent of that article left room for little else. We met on our way to the hunting grounds a horse and cart fully occupied, by a "Cracker" and his family. On the back of the horse was a child, while on the palm leaves which covered the bottom of the vehicle reposed his lordship, wife, and three other children. Over the shrub palmettoes which reached to the horse's breast we galloped, and placing some two miles between us and the village, we brought up at an old sugar mill, built by Turnbull over a hundred years ago. Its composition was Coquina rock, and in ruins, but what still remained of its ancient walls overgrown with lovely ivies, yellow jessamines and running vines, gave it a picturesque effect not soon to be forgotten. Tall palm trees reared their lofty trunks from its interior, and my companion remarked that "he had been led astray many times while abroad to visit celebrated ruins, not half so artistic." From this we turned into one of those swamps or savannahs as they are called in the South, and our dog soon pointed on the edge of a thicket our first bevy of quail. Dropping from our horses, and throwing our reins on the ground, which was sufficient to detain the animals, we flushed the birds one after another, and secured eleven for our bag, one of them being shot on the wing after remounting on our saddles, the horses standing as still as if petrified. Retrieving birds without a dog is impossible in Florida on account of the heavy underbrush, in view of the best of his species we lost two that day.

The next day was the Sabbath, and engaging a missionary who happened to be in the vicinity, we had service at the hotel, our top boots and hunting suits not detracting from our full enjoyment of the exercises. A small wooden building costing fifteen hundred dollars has been constructed, and is used as a church and school-house, the fun is being largely contributed by sportsmen who frequent the place annually.

After a few days of rest at New Smyrna we made preparations to sail for our Eldorado of Florida—Indian River. Hiring a small schooner-rigged sail-boat, we loaded it with provisions of the best that could be had at New Smyrna, but the variety was limited. Hard tack, salt pork, rice, coffee, sugar and condensed milk was the extent, relying on our guns to help out the larder. My guide was a six-footer, who (as was fortunate) had lived four years on this mysterious Indian River, knew every island and point, and alone with him I set sail. From Mosquito Lagoon we beat, tacking in and out through its many channels, shooting a few ducks on the way, and reaching the "cut-off" about noon. This cut-off connects Mosquito Lagoon with Indian River, and is a half a mile in length. It was built by the United States Government during the Seminole war of 1835, and through it passed the supplies to the forts of the Indian country. At the present time the water is very shallow, the walls having crumbled in, and it does not allow boats drawing over seven inches of water to pass. The channel is cut through solid walls of shell concrete, which arise on either side some twelve feet, and it is only eight feet in width, but with my guide in the water pushing, and the help of my own hands on the rocky sides, we effected a passage. A boat of larger build had only just preceded us, working for three days a channel with pick and ax, and the sides of the vessel, which we afterward observed, were in a sadly damaged condition. From the cut-off we entered a large bay twenty miles in width, and which is really the head

of Indian River. It was a lovely bright day, the thermometer at about 80 degrees in the shade, and we enjoyed to the fullest extent the delightful sail across the water to Titusville, which is located on the west shore. Near this place is "Dummett's Grove," celebrated the State over for its fine oranges, very few of which are shipped to the north. This fruit, though small, is deliciously sweet, with a very thin skin, and they are known in the market as "Indian River oranges," and it is from these and "sick Yankees" that the Floridians nowadays make most of their money.

(To be continued.)

For Forest and Stream and Rod and Gun.

## THE EDITOR'S GROUSE HUNT IN MINNESOTA.

**H**ALLOCK was expected in St. Paul, and what was to be done to entertain and amuse him was a question, previous to his arrival, often discussed by the sportsman's fraternity of our city. It was but natural that we should wish to do him honor and make his stay among us as pleasant for him as the circumstances would permit, for we all felt a debt of gratitude due to the Editor of the FOREST AND STREAM AND ROD AND GUN, the author of the "Sportsman's Gazetteer;" and this feeling, I dare to say without fear of contradiction, is shared by every true sportsman in America. Several projects were under consideration, and all agreed that in the first place he must have a day or two with the prairie chickens; for a sportsman visiting Minnesota in August or September without making the acquaintance of *Cupidonia cupido* and *Peisaces phasianellus*, would be as bad as for a pilgrim to come to Rome without seeing the Popo—so a grouse hunt must be.

After the arrival of our distinguished visitor, and proper greetings and hospitalities, off we started for the prairies, the Editor, "Doc," W. and I. "Doc" is our leading sportsman, *primus inter pares*, with the best of everything desirable for a hunter's outfit; guns, dogs, boats, hunting-wagon—himself the closing link in that long chain of first-class sportsmen of which St. Paul is justly proud.

At 3 o'clock p. m. on the 18th of September we left our city by the St. Paul and Sioux City Railroad. This most excellent thoroughfare binds together St. Paul with the Missouri River, and farther on by the Union Pacific, with California. After crossing the Mississippi and passing Fort Snelling, we entered the beautiful Minnesota Valley, famous for its rich natural meadows, in the midst of which a narrow belt of timber marks out the meandering water-course, of which here and there we had passing glimpses. Thus we sped on for hours; on our right an uninterrupted carpet of the richest verdure, but on the left higher ground, with stubble-fields and farmhouses, until by sunset we entered a belt of heavy timber, a branch of the "big woods," which here crosses the Minnesota River, and in a southeasterly direction stretches through the country almost to the boundaries of Iowa. Darkness soon obscured the view, but our snorting iron steed carried us safely through the thickening gloom to our objective point, Madelia, a small village and station, which will always retain its page in the history of Minnesota as the place where the closing scene was enacted in the grand chase of the Northfield robbers; for in a willow thicket on the bank of the Watondan River near this village the tigers were bearded in their lair, one killed, and the remainder, the three Younger Brothers, captured alive by a few brave Minnesotians.

We arrived rather late in the evening. By the thoughtfulness of "Doc," his famous hunting wagon, already described by the editor in his hunting notes, was in waiting at the depot and carried ourselves and baggage to the village inn, where comfortable quarters and an excellent supper had beforehand been ordered and was ready. To this we did ample justice, and after section four friends fed and quartered we retired to rest. I have scarcely forgotten to mention that besides guns, ammunition and commissary stores, we brought with us two brace of setters, "Doc," his two magnificent thoroughbred English, and Gordon bitch of the bluest blood, and I my imported Irish setter Rover, which is good enough for me.

After an early breakfast we were off for the hunting field, which was about six miles distant. The day was not such a one, as you would select for a grouse hunt on the prairies. It was very hot and sultry with a strong wind, almost a gale, blowing from the south, and there was not a particle of moisture in the ground. Proceeding a few miles at a rapid rate behind a span of splendid horses belonging to our landlord, we came suddenly to a stop by the discovery that the ring on one of the wheels was loose. This seemed rather perplexing at first, but had we not with us the author of the "Gazetteer," and was he not equal to the emergency? Out of one of the many pockets of his hunting coat he extracted a roll, which was found to contain a small hammer, a pair of diminutive tongs, some annealed wire, a few nails, screws, and many little tools and odds and ends. The wire was firmly wound around the wheel on two or three places and fastened, and the injury mended in less than no time. And now it would follow in order, to describe the editor's famous hunting coat, from one of the receptacles of which the above useful bundle was taken, but I feel and confess my inability to do justice to the subject. Was it a coat, or was it a conglomeration of pockets? It was, in fact, very much of pockets and very little of coat. The former by all means predominated. Pockets in front, pockets behind, pockets above and below and every where; each one containing some useful article which, according to the "Gazetteer," ought to be on a sportsman's complete outfit. Any one who may wish to inspect this remarkable garment can doubtless find it hanging on the wall of the FOREST AND STREAM's sanctum, where it ought to have its place, rescued as it was, on a later occasion, "from a watery grave."

After the mending of our wheel by the dexterous hand of the editor, we continued on for a mile or two more, and then left the wagon and commenced scouring a stubble field. The editor and "Doc," to the left, and I to the right. My dog was the first to find game, but as he came down, the wind which was blowing hard at the time, he did not feel the presence of the birds before he was in the middle of the gang. The whole

covey rose and scattered, some going straight ahead toward the south, others lighting in a corn field to our right. My friends followed the former, and I the latter, which I was successful in finding. My dog worked finely, and in a short while I had bagged three or four birds, large, plump and fully grown; then all of a sudden my dog disappeared. I looked for him all through the corn, called at d whistled, but could not find him anywhere. At last I went out on the adjoining prairie, and here, at a distance of fully a mile, I noticed poor Rover running like a deer, backward and forward in every direction. From some cause or other he had lost me in the corn field, got bewildered, and was apparently hunting me instead of prairie chickens. I took to the wagon and made the driver bring me up to the dog, and when I came up to him he was so overheated and exhausted, being rather too fat for hunting in very warm weather, that he could hardly move. His hind limbs seemed partly paralyzed, and the poor animal was in great distress. Fortunately we had plenty of ice, and by holding a big lump on his head, and giving him ice water in small quantities he gradually recovered; but he was *hors de combat* for that day and was consigned to the kennel in the rear part of the wagon. I was very much annoyed by this mishap, and remained for an hour or two with my dog administering to his wants. In the meantime my companions had found another covey and bagged quite a number. I now joined them, and for the rest of the day we all three shot over "Doc's" sters.

In another corn field we soon found a large gang of birds, of which at the first flight we brought down three; but they were very wild, rose all at a time and disappeared behind the high bank of an adjoining creek. For a long while we hunted for them in vain in the bottoms, on both sides of this and in the willow thickets on its banks, but finally, farther on in some very high grass we found them again, and for a few minutes the firing was quite lively, with tolerably good results. It was now nearly noon and intensely hot, the thermometer surely up among the nineties, and we concluded to have our lunch and some rest, for which purpose we repaired to a farmhouse near by, and spread our commissary stores on the shady side of a big haystack. Our lunch basket contained among other things, canned salmon and Delaware grapes, and for beverage some very excellent bottled beer, of all of which I for one partook very freely. And hereby hangs a tale, of which more anon.

After lunching, smoking and resting to our heart's content, we resumed our hunt in the direction of Madelia, but taking a somewhat more easterly course. In a cornfield close by our resting-place we found a few scattered birds which we bagged, our editor displaying here some very fine marksmanship; and I may as well here remark that, as far as I remember, I think he hardly missed a bird all day long. After this, for a distance of two or three miles, we did not find a single bird, but made by this time a very unpleasant discovery—the editor's famous hunting coat, above referred to, was missing, and with it his gold watch and chain, nearly all his shells, and many other useful and ornamental articles too numerous to mention. Stars and stripes! It was gone sure enough; had slipped down from the wagon somewhere on the prairie between us and our late resting-place, some three miles distant. Here was a pretty go! but an attempt must be made to recover the lost property, and as the driver thought that he might be able to follow the wagon track back over the prairie, he and the editor retraced their steps with the wagon, while Doc, and I proceeded onward on foot towards a certain point, where they were to overtake us.

They had not long been absent when I commenced feeling quite sick, probably the consequence of too freely indulging in salmon, grapes and lager-beer; apparently it was a case of cholera morbus, or something very much like it. I suffered quite severely, and sat down to rest at a fence. "Come, come, John," called out Doc, "never mind cholera morbus, look at the dogs. We will kill a dozen birds before the editor returns." And, sure enough, his setters had made game in a patch of grass and came to a most beautiful point, crouching very low, tails extended, eyes glaring, nostrils working; there they stood as cut in marble, a most charming sight. How we wished we had our friend Zimmerman there to take the picture. Sick as I was I snatched up my gun and joined Doc. On we went ahead of the setters, who refused to move a single step; we expected every moment a rise of at least twenty birds, and we found—a big mud-turtle quietly marching along a narrow cattle path. "D—m turtle," broke out Doc, in disgust, and gave it a vigorous kick. This was exceptional and very unusual in Doc, for he is a very polite gentleman, a church member, and not known to indulge in profane language. But then, fancy the provocation! Expecting a score of chickens and finding a mud turtle. 'Tis enough to make a saint profane.

A little further on we found and killed a couple of chickens; but after that I stayed behind, feeling very sick and distressed and waiting for the editor and the wagon to overtake me. There I sat for more than an hour wishing very much I were at home and "in my little bed." But at last came the editor, the wagon and relief. The lost garment with all its contents was found not far from our lunching place, and the editor, hearing of my illness, told me at once that remedy was on hand. His coat, among other things, was provided, it seems, with a drug store, and up came from one of its innumerable pockets a small vial, from which the editor kindly administered forty drops in a tablespoon of water. It acted like a charm. Here it is for the benefit of the reader:

Laudanum, capsicum, spirits of camphor, peppermint and Hoffman's anodyne, in *partibus equalibus*; detur, thirty drops for people in general, but forty for a grousehunter, brought to grief by canned salmon and Delaware grapes. *Probatum est.* Although out of pain, I felt very weak and concluded to stay in the wagon for the rest of the afternoon. But the editor and Doc had pretty good shooting, finding quite a number of birds on the way back to Madelia, where we arrived just in time for supper. Our bag contained 46 grouse; and although it was less than we had expected, it was not so bad after all, considering the weather and our several mishaps. It was our intention to have one day more among the pinnated gentry; but when we rose early the next morning a storm was brewing, and the sky looked all around very threatening. We decided therefore to take the morning train for St. Paul, which we did; but when we passed through the big woods the sky had cleared up a little, and the editor and Doc made up their minds to stay there until the evening train and try their luck with the ruffed grouse. So I left them there and continued on to St. Paul, reaching my home just as the storm broke loose. Meeting my friends the next morning they reported as the result of their stay in the big woods: six ruffed grouse and a thorough wetting.

Here ends the simple but truthful tale about the editor's grouse hunt in Minnesota, in which the prominent points seem to be a loose wheel ring, an overheated dog, a wonderful hunting coat, cholera morbus and a mud turtle. J. S.

## HUNTING IN SULLIVAN CO.

The Beaverkill region of Sullivan Co. is famous not only for the rare trout streams afford the angler, even in fishing within respectable distance to be not much more than a month's ride and secure ridges where there is a section, however small, of the prairie hunters; and as to partridge—beg pardon, grouse—the smaller game, the woods have been full of them.

Dave Avery and Billy Beemer, of this place, came in from Smith Schoonmakers a few days since. Smith keeps a "sportsman's rest" ten miles from here, in Bethel. They met two other sportsmen there, and were absent two days. The party killed five deer, all the finest kind. Parties from Newburgh, Paterson, and other places, have been equally successful, and twenty deer have been brought into Monticello from Bethel since the season opened. Nearer Monticello the grouse shooting is unsurpassed. Dave Avery, of the Mansion House, who is equally at home behind setter or deerhound, or in hand-to-hand contest with bear, says that the lover of grouse shooting could never find better sport than can be had within three miles of Monticello. Every day brings parties in from the surrounding country to enjoy the sport. Monticello is the centre of the White Lake, Black Lake, Sackett Pond, and other wild hunting regions, and I know of no more convenient locality or one that gives better promise to the sportsman than this same section of Sullivan County. The writer has just returned from a week's stay in the section, and knows whereof he speaks. From Monticello one is in easy reach of the Beaverkill region also.

Three deer were killed last week by local hunters, six miles from Monticello. One was an enormous buck from the Far-through ridges. The same week, local hunters ran a buck, a doe and a fawn into Sackett Pond, and got the buck. The other two escaped. There is a party of New Yorkers at Black Lake at the present writing. They had captured a fine deer, and had a bear chase with an unsuccessful ending, however, at last accounts.

Monticello has five trains from New York via Erie Railway to Port Jervis, then by Port Jervis and Monticello Railroad. Sportsmen visiting this region by going to the genial Sheriff Morris's mansion house, will find everything pleasant, and be furnished full information as to hunting grounds, etc.

## Fish Culture.

### HISTORY OF SALMON CULTURE IN PENNSYLVANIA.

(From the Easton Free Press.)

ON October 26, 1870, the first black bass, about 450, from Harper's Ferry, were placed in the Delaware, just below the Lehig Dam. The project was suggested and urged by the late Thaddeus Norris, and the funds for the purpose were raised by him and by Howard J. Reeder, Esq., and G. W. Stout, Esq., these latter raising in Easton \$313, and Mr. Norris about \$1,000 in Philadelphia. The remainder of the funds not applied to bass (about one-half) was then applied by Mr. Norris to the experiment of stocking our waters with salmon. It had occurred favorably to him that salmon would live and thrive in waters of the purity and temperature of the Delaware and its tributaries.

In the winters of 1870-71 Mr. Norris made arrangements with Mr. Christie, who owned a hatching establishment in Dutchess County, N. Y., for the purpose of this experiment. The late Henry A. King, conductor on the Central Railroad of New Jersey, an enthusiast in fish culture and angling, took a deep interest in these experiments, and he, with Mr. Christie, personally superintended the bringing of the salmon fry to Easton, where they arrived with them on Decoration Day, May 30, 1871, an exceedingly hot day. They brought about 2,000 salmon fry, about one and a quarter inches long. Owing to the great heat of the day and the long journey, one hundred and fifty miles, and the lack of experience at that time in transporting fry, they arrived in a bad condition, only 2,000 being alive out of many thousands, and most of these in a very weak state.

Mr. George W. Stout, who carried out all the details of Mr. Norris' suggestions, with the aid of B. H. Christie and his brother, Leonard D. Christie, deposited the fry, on the evening of their arrival, a part of them in the spring of the late Paul Rader and the remainder in Benjamin Lerch's spring and John Lerch's spring. These springs are all large and situated on the Bushkill, about four miles above Easton. As these fish were in such bad condition when deposited that it is not known if any of them lived, the experiment was considered unsatisfactory.

The project was then conceived of bringing the eggs from Canada and hatching them on the ground, and 12,000 eggs were received from Mr. Wilmot, Newcastle, Ontario, part of which were whitefish, by Mr. George W. Stout, on April 4, 1872. On April 6th Mr. Stout, Mr. Thad. Norris and Mr. H. J. Reeder, placed the eggs in hatching boxes, previously prepared in the fine spring of Jonathan Fly, about a mile west of Easton.

The salmon were very successfully hatched out under Mr. Fly's supervision, but the whitefish were a failure. These salmon were placed in the large spring by the Bushkill, immediately below Yoh's upper dam, by Messrs. Stout, Norris, Mark Warner and Mr. Fly. To make the experiment more conclusive, hatching boxes were prepared, after Mr. Norris' model, and placed in Mr. Heitzman's spring on the Delaware, two miles above Easton, and on the 23d of March, 1873, the same party placed in the boxes 40,000 salmon eggs from the hatching establishment of G. C. Atkins, Bucksport, Maine. These were hatched out not so successfully as those by Mr. Fly, but probably one-half survived and were placed in the Delaware.

These experiments were the result of the private enterprise of the persons named, and all salmon propagated were of the *Salmo salar*, or true salmon of the St. Lawrence and Northern Europe. The private enterprise of these gentlemen was then merged into the labors of the Fish Commissioners of Pennsylvania and New Jersey, and we trust that our Commission will be more liberally encouraged by appropriations than heretofore, in view of the facts that salmon culture in our rivers seems to be crowned with success.

SALMON IN 1852 IN THE SUSQUEHANNA.—EDITOR FOREST AND STREAM.—I found a newspaper cutting which I copy for you: 1852, June.—A salmon weighing upward of two pounds was caught in the Susquehanna, near Danville, some days since. I think that the Delaware and Susquehanna rivers are better for salmon rivers, and that this fish would thrive there better than in the Hudson, but the matter of fish ladders over dams ought to be attended to. I may add that sawdust thrown into rivers and sinking, water-logged, to the bottom is death to salmon. I heard this stated on the small rivers, Metis, Rimouki, R. du Loup, Des Trois Pistoles, etc., that empty into the St. Lawrence from the south, in 1840, while on the Northeast Boundary Survey. There are no salmon in these rivers of any consequence on this account. Maybe it is because they all have natural falls that the salmon cannot leap. We got a few salmon in the Metis near the falls (some 40 feet high and near its mouth) and as many as we could use for a party of thirty men, in the basin below the falls, which probably were only looking in for a chance. In the Lake Metis, 40 miles from the St. Lawrence, we got quantities of *Togus* or *salmo amethystus*, from 6 to 13 pounds, on the spawning grounds in September.

J. CARSON BREVOORT.

GENEVA LAKE, Wis., Nov. 22.—On last Thursday there were received here 500,000 salmon trout eggs for N. K. Fairbanks. This is the third season that Mr. Fairbanks has pursued fish propagation upon a large scale. He has deposited in Lake Geneva nearly 9,000,000 young food fishes, as follows: In 1875, 17,000 Oswego bass; in 1876, 250,000 salmon trout, 112,000 whitefish, 50,000 brook trout, 1,500,000 walleyed pike, 20,000 California salmon; in 1877, 1,000,000 salmon trout, 100,000 whitefish, 4,500,000 walleyed pike, 100,000 California salmon, 108,000 brook trout. For this season he has successfully hatched 200,000 California salmon, which are now lively minnows an inch in length, and he will receive large quantities of fish eggs within the next few weeks. Wisconsin has an appropriation for this season for fish culture, and the State hatching-houses at Madison and Milwaukee are now in successful operation under the charge of Prof. H. W. Welsh and Bart Scott, formerly of this place. There will be propagated at the two houses this season 5,000,000 each of whitefish and salmon trout, besides 160,000 California salmon, and considerable quantities of brook trout, etc.—*Wisconsin State Register*, Nov. 29.

—The recent floods in Virginia washed a great many bass out of the James River. The State Hatching House at Lexington was much endangered, but the water did not finally cover the floors to a greater depth than five inches. The hatching troughs are two feet above the floor. Fish Commissioner Henry B. Nicholas has sent us two fish from the hatching of the California salmon—always an interesting monstrosity, but by no means rare. The fish are joined at the middle of the bodies, and have one umbilical sac in common. The salmon fry, we are glad to learn, turned out remarkably well.

SALMON IN CAYUGA LAKE.—Editor Forest and Stream.—Three years ago last February the Game Club here let loose a considerable number of salmon fry in the Inlet, some four to five miles above Cayuga Lake. We have heard of a strange fish being caught up the Inlet by persons drawing sucker nets, but they devoured what they caught and kept mum. On Sunday last, however, a fish floated up in the lake nearly dead to death by a lamprey eel. He was picked up, and found to be a genuine Kennebec salmon, eighteen inches long, and weighing at a guess three and one-half pounds. The fish was sent to Monroe or Seth Green for identification. There are living here and hereabouts some oldest inhabitants who remember, and have caught the great salmon, that before the Erie Canal and the Oswego dams used to make their way from the sea to this very Inlet. Some of them have seen this fish, and immediately pronounced it a true salmon. Now the great question is, will these fish breed here; running up the Inlet to the lake for that purpose, and falling back into the lake as they do into the sea elsewhere? Or is this one of the fry put in here three years ago; and has it been to the sea and got so far back, seeking the place of its youth? It is considered here that the dams and the canal have long ago sealed access from the sea.

Utica, N. Y., Nov. 25, 1877.

### Natural History.

#### THESE MIGRATORY QUAIL.

WE are at a loss to conjecture through what inadvertence all that has been done by the sportsmen of Boston and Rutland in introducing to our bird fauna such an interesting addition as is the migratory quail of Europe was overlooked. It is true that when the articles in question appeared in FOREST AND STREAM last summer, we were absent in the West, and hence our attention was not specially called to the matter, as it would have been had we been in charge of the office at the time. This absence must plead our excuse. The error was observed almost as soon as the paper came from the press, but of course too late for correction.

The services of Judge Everts and Mr. Hapgood, whose letters we print below, are too well known in this connection to need comment or praise from us, and we cannot help believing that although their efforts just now seem to have me with a check they will ultimately be crowned with success

RUTLAND, Nov. 26, 1877.

#### EDITOR FOREST AND STREAM:

Judge of the surprise of the Rutland Fur Co. on reading an article in your paper of last week, headed "Quail at Sea. Have we a new variety of quail?" With your correspondence and editorial you seem to be in a profound doubt, but to throw light upon the subject, I would suggest that it is not necessary to look to Jamaica or St. Croix for a solution of the question you propound, but let the FOREST AND STREAM refer to itself. See your paper of June 25, page 341; August 2, page 447; August 9, pages 10, 11 and 12; August 23, page 51; September 6, page 83, and November 15, page 296, all of which have reference to the importation of migratory quail to this country the past season; also letters in *Ron and Gun* of January, 1876, written to Dr. Goldsmith, then in Europe, by me, which is believed to be the first record ever in print in favor of their importation.

On the 8th of June last I received, through the kindness of Mr. Geo. H. Owen, United States Consul at Messina, Sicily, from Mr. D. Bonanno, out of an invoice of 200, 197 of the migratory quail in the best condition. One half of them were turned out the next day, 9th, and the remainder on the 11th (the 10th being Sunday) in most favorable places for breeding (see your paper of Aug. 2). I should judge that the sexes were divided as follows: 80 males to 120 females. They commenced laying within five days of the time they were turned out. A large number of nests were found, the number of eggs in each nest ranging from eleven to sixteen—as a rule thirteen or fourteen. Barring accidents, which happened to two or three nests, almost every egg hatched, and the young birds left in an hour after hatching. One old bird was run down by a mowing machine while hatching. She took her young out of the nest, leaving one egg with a live bird in it unhatched. Five or six nests were built within fifty yards of farmhouse; or within thirty rods of the place where they were turned out. There are more than twenty different fields where the young birds have been seen ranging in numbers from twelve to fifty in a field. The eggs of the birds are of the size and shape of the American quail's egg, though of various shades of color, from the color of the turkey's egg to that of a Dantonnus gun barrel. The male bird is very cheerful and happy night and morning about dwellings and fence-yards, while the female is hatching and caring for the young.

The birds fed, almost exclusively upon grasshoppers and other insects; were seen in large parties, mainly young, enjoying a grand grasshopper hunt, but at the slightest motion of an intruder all would skulk and could not be found. Had these birds been placed in the Missouri Valley fifty years ago it is believed that the grasshopper plague would never have occurred. The young birds at four weeks old would fly with nearly the same facility as the old ones. Many of the birds migrated before September 1. A few were left, a sort of rear guard, ten days later. It is believed a safe estimate that eighty females bred and migrated. Not to exceed ten birds, old and growing, are known to have been killed—all by accident.

It is a bad omen for their successful acclimatization that they leave the coast so far north. "That they go down to the sea in ships that do business in great waters." Those birds will most certainly perish. Would it not be better to introduce the birds far West, away from the coast, so that their migration would extend into Mexico? Should any number of these birds follow the coast to lower Florida they might easily fly to Cuba, Jamaica, San Domingo, or Yucatan, in which case they would most certainly return. It seems impossible that all should perish of North Carolina. They seemed not at all inclined to suicide while here. Your correspondent "Virginian" has given an accurate description of our birds. The mark of dark feathers across the throat of the male is very prominent, and the sexes quite distinguished. Will not other sportsmen in the South communicate with you should they fall in with the birds during the winter? Before closing, I must, do a simple act of justice to Mr. W. Hapgood, of Boston (see his letter of August 9), as he, among all the men corresponded with previous to the importation of the birds, endured to the end, and received his birds on the same ship with ours, while so many who promised their co-operation tried to fight but failed. Truly yours, W. G. EVERTS.

BOSTON, Nov. 23, 1877.

#### EDITOR FOREST AND STREAM:

Returning on Saturday last from an excursion of several days' quail shooting at Cape Cod our attention was called to some editorial comments upon two letters in your last issue, Nov. 22, describing a new species of quail. The editorial remarks see on page 366 and are headed, "Quail at Sea—Have We a New Variety of Quail?" By referring to FOREST AND STREAM of Aug. 2, or to the 9th of the same month, or to various notices of the "press" up and down the land, any one may inform himself as to the introduction of the "new variety of quail" into this country as well as of their habits and characteristics. In the article of Aug. 9 the writer asks this question, in reference to the newly imported European quail (*Coturnix Coturnix*): "If they migrate will they strike boldly out to sea, thinking they are to cross the Mediterranean and thus perish?" The information conveyed by your correspondent "J. G. W." would seem to confirm the worst fears of the writer. That "J. G. W." being one of the "new readers" of your interesting journal, should not be familiar with the fact of the importation of these birds, or that the matter in hand should have escaped the notice of "Virginian" who describes the markings and habits of the birds remarkably well, particularly that part which refers to "puzzling the dogs," would seem to elicit no comment, but that the editor of FOREST AND STREAM, who has previously acknowledged in complimentary terms the effort to introduce European quail into this country, and who usually seems to know and remember everything pertaining to sporting matters, should fail to recognize these birds, is truly surprising. The parties who imported these birds, have, from the very day they were planted upon our soil, had great solicitude about their propagating, migrating and returning. So earnest were some of them, that they desired notice to be given through your columns of the probable appearance of these birds at the South, and requesting information through the same, as to their habits and modes of life in winter; but not wishing to trouble the editor, and thinking some one would be likely to observe and note the new comers, the request was not made. There is no positive evidence to show that the birds planted in Massachusetts bred extensively; the several broods are known to have existed, while those planted in Vermont multiplied prodigiously. The reason for this has not yet transpired. Do they breed better in mountainous regions, than in level sections along the sea board? Or do they find congenial food in the Green Mountain Range which utterly fails them on the Atlantic coast? Both colonies migrated about the 10th or 15th of September.

Now, if they are foolish enough to leave these happy shores with all the millions of acres of wheat fields behind them and put to sea steering in a Southeastward direction, as represented, we may as well close "Adventure No. 1" in quail, not by "profit and loss," but "lost at sea"; for not one of them will ever again see land. Should they change their course and steer more to the Southward, as they would be likely to, they would still be unable to reach the Bahamas, the nearest land some hundreds miles distant. We cannot help thinking that if these prolific little breeders could be introduced into this country and by some system of planting be taught to migrate only to the Northern to the Southern part thereof, and vice versa, it would be the greatest boon to future generations of sportsmen we could offer. If the account given by "Virginian" is true, as we believe it is, that when fished near the coast they rise to an altitude of "five or six hundred feet" and then

"strike straight out to sea," it shows that they are just upon the eve of their long migrations, as the older ones—who are probably the leaders here—are wont to do, from the southern shores of Europe crossing the Mediterranean Sea to spend the winter months in Africa. The fact that the friend of "J. G. W." saw them a hundred miles at sea off Hatteras rather confirms the statement of "Virginian," and both together fill with saddest disappointment the hearts of those who have straggled to introduce them here. There are parties here now ready and willing to import a thousand or more of these birds to stock the country if any degree of success is probable, but if they all "strike out to sea" the next autumn and perish, as they must, in the waves, some new plan of operation must be commenced or the whole scheme abandoned. We would suggest, if the birds were planted in Florida or the Carolinas, in March or April, they would hardly think of going South at that period, but would be likely to go North in May, where they would breed and possibly return to the place of colonization the following autumn; or again, the callow birds might be captured in nets or otherwise at the end of August and kept at the North during the winter to be released in the spring where, they would reproduce their young, which possibly might not incline to leave our shores and perish, as have their predecessors. The whole matter is now open before our sportsmen who are more intimately interested, though every person should feel an interest in the subject, as it would, if successful, add somewhat to the food supply for the whole country. We are still not without hope that some plan will be suggested whereby the birds may be successfully introduced and bred here. We also desire from the South further information of our little pets, still "hoping against hope" that some of them may tarry and dwell with our Southern brethren during the winter, to return and receive from us in the spring a hearty welcome.

W. HARGOOD.

#### EDITOR FOREST AND STREAM:

SALER, MASS.

In your issue of Nov. 22 there is an article headed, "Have We a New Variety of Quail?" with two letters on the subject. Now, are not the quail found off Hatteras and in North Carolina the European migratory quail, some hundreds of which were put out by Judge Everts, of Vermont, last spring, and nearly as many by different sportsmen around Boston, with the hope that they would breed, go South on the approach of cold weather, return in the spring North to increase and multiply, giving us a quail that would not be so likely to be winter-killed as our native bird? It is hoped that specimens may be properly identified—There was some fear expressed that they might try to cross the Atlantic, and, of course, perish; but if they have followed the coast as far as North Carolina, let us hope that most of them may be preserved, and that the introducing a new game bird becomes a success. A large importation will probably be made this winter, if it seems at all probable that the attempt last spring was a success. Your correspondent, "Teal," shot one, November 1, at Essex, in this State, which was a young cock bird, showing that those put out about here had bred. With the hope that notice of any strange quail being found or shot may be forwarded to you for insertion, I remain, very respectfully,

STANLICE.

[We earnestly hope that any and all of our Southern friends who may chance to meet with these little immigrants will at once communicate with us. Notices of their habits, so far as it is possible to observe them, are especially to be desired, as we cannot hope to be successful in our efforts to introduce them to this country unless the requirements of the birds become more fully known than they are at present.]

Judge Everts' suggestion of planting a colony of them in the West, perhaps in the Mississippi or Missouri Valley, seems to us a most happy one, for, if located there, is does not seem possible that they could reach the sea.—Ed.]

#### A PROVISIONAL LIST OF THE BIRDS PROCURED AND NOTICED BY MR. FRED. A. OBER IN THE ISLAND OF DOMINICA.

BY GEO. N. LAWRENCE.

ABOUT a year ago an agreement was made by the officers of the Smithsonian Institution with Mr. F. A. Ober (the well-known correspondent of FOREST AND STREAM), to make explorations in some of the Lesser Antilles, thereby to obtain a better knowledge of their natural history than we have heretofore possessed. It was arranged that I should examine the birds, and prepare a catalogue of the species found in each island, to be published when its investigation was completed.

Mr. Ober commenced with Dominica, and has sent three collections from there, comprising, apparently, with a few exceptions, all the land birds he heard of that inhabited the island. Some of the sea birds, not easily obtainable, were observed sufficiently to be surely known. I am now preparing the catalogue of the birds of that island, to be accompanied with the notes and observations of Mr. Ober; but as its publication possibly may be delayed, it has been thought advisable to put on record in FOREST AND STREAM the result of Mr. Ober's explorations:

- |   |  |
|---|--|
| 1. <i>Margarops herminieri</i> (Laf.)                             | 33. "Parrot." This species is well known, but Mr. Ober was unable to procure it.   |
| 2. <i>Do. desmarestii</i> (Vieill.)                               |  |
| 3. <i>Do. montana</i> (Vieill.)                                   |  |
| 4. <i>Cineloceutha ruficauda</i> ,                                | 34. <i>Strix dauma</i> var. <i>negrescens</i> , Linn.  |
| 5. "Thrush?" Heard of but not obtained.                           | 35. <i>Fardion halictus</i> (Linn.)  |
| 6. <i>Myadestes ignobilis</i> , Sw.                               | 36. <i>Buteo pennsylvanicus</i> (Vieill.)  |
| 7. <i>Tyrichthorus rufescens</i> , Linn.                          | 37. <i>Tinnunculus scarsevrii</i> var. <i>atlanticum</i> (Linn.)   |
| 8. <i>Sturnus vulgaris</i> (Bodd.)                                | 38. <i>Fregata aquila</i> (Linn.)  |
| 9. <i>Streptopelia turtur</i> (Gm.)                               | 39. <i>Phaethon flammiceps</i> Gmelin.   |
| 10. <i>Dendrocopos pectoratus</i> (Linn.)                         | 40. <i>Pelecanus fuscescens</i> (Gm.)  |
| 11. <i>Do. plumbea</i> , Linn.                                    | 41. <i>Ardea canadensis</i> (Gm.)  |
| 12. <i>Setopaga ruticilla</i> (Linn.)                             | 42. <i>Do. carolinensis</i> , Linn.  |
| 13. <i>Vireo Sylvia calidris</i> var. <i>dominicensis</i> , Lawr. | 43. <i>Eurypyga viridescens</i> (Linn.)  |
| 14. <i>Progne dominicensis</i> (Gm.)                              | 44. <i>Columba coralina</i> , Gm.  |
| 15. <i>Certhiola dominicensis</i> , Taylor.                       | 45. <i>Zenaidura macroura</i> , Sp.  |
| 16. <i>Empidonax flaviventris</i> (Swamp.)                        | 46. <i>Chamaepelia passerina</i> (Linn.)   |
| 17. <i>Sialia sialis</i> (Linn.)                                  | 47. <i>Geopelia striata</i> (Linn.)  |
| 18. <i>Coereba acuta</i> (Linn.)                                  | 48. <i>Charadrius virginicus</i> , Forst.  |
| 19. <i>Ploceus bicolor</i> (Linn.)                                | 49. <i>Sporophila interpres</i> (Linn.)  |
| 20. <i>Lanius martinicus</i> (Linn.)                              | 50. "Sandpiper." Specimen not yet to hand.   |
| 21. <i>Myiarchus oberi</i> , Lawr.                                | 51. <i>Tringoides macularius</i> (Linn.)   |
| 22. <i>Eucybus albus</i> , Gmel.                                  | 52. "Tern." Seen by Mr. Ober, and thought to be <i>Arenas solidus</i> .  |
| 23. <i>Tyrannus rostratus</i> , Sci.                              | 53. <i>Sterna antillarum</i> (Less.)   |
| 24. <i>Eulampis jugularis</i> (Linn.)                             | 54. <i>Do. fuliginosa</i> (Jm.)  |
| 25. <i>Do. jugularis</i> (Linn.)                                  | 55. <i>Chauleiops aethiops</i> , Scop.   |
| 26. <i>Turdus migratorius</i> (Less.)                             | 56. "Diablotin." A species of Petrel, which burrows on the top of high mountains for a nest. Abundant, now rare. Mr. Ober has made arrangements by which he hopes to obtain this and the other species he failed to get. |

## A FEW WORDS CONCERNING RUFFED GROUSE.

## EDITOR FOREST AND STREAM:

"Ho who shooteth the ruffed grouse on the wing is greater than he who taketh a city!" So says a friend of mine; and so, doubtless, he is greater than he who taketh a city by bringing to bear on it a photographic camera; for this anyone of ordinary capacity, can he taught to do, while the crack shot (and he only, can, with any certainty, bring the swift-winged grouse to earth) is, as we are told by J. Cypress, Jr., "the work of God."

For myself, I am free to acknowledge that when I have, more by good fortune than skill, accomplished this feat handsomely, I feel puffed up with self-satisfaction to about the size of an elephant. I would that I might oftener feel this comfortable inflation, but alas, perhaps the next half-dozen glorious opportunities are missed, and then I shrink to more than normal attention.

He is a hard fellow to bring down, and is admitted to be, by all, and by most sportsmen, the most difficult of all our birds, though Frank Forester says that "he hangs heavily at first on the air" (see "Manual," page 346), and is far from requiring an unusually hard blow to bring him."

First and last I suppose I have flushed a thousand or more of these birds, as what wood-ranging New Englander has not, and never one among them all that started in good earnest but went off like a rocket. Sometimes, though very rarely, they seem scarcely alarmed, and fly hesitatingly, as if looking for a good place to alight, which they soon do in such cases, if not taking more flight. Such a ruffed grouse as figures in the frontispiece of vol. 1 of "Field Sports" might, indeed, hang heavily, for the poor fellow has no wings.

As for their being easily killed, my experience has led me to a contrary opinion. Some fresh instances of their tenacity of life have come to my knowledge this season. Early in October I took a snap shot at one flying across me and saw him fall. Going to pick him up I found him fluttering along in just the opposite direction from that in which he was dying when shot, and so rapidly that he led me a chase of twenty rods or more before I caught him, and apparently had still a good deal of life in him. Yet there were three No. 5 shot through his neck and four in his body. Another shot at, not many days since, while flying from me behind a low tree, and at first supposed to have been missed, was found hiding by an old hound that was with us (for we were fox hunting), and though he had five or six No. 6 shot in his body and a broken wing to boot, had lots of running power left in him. Several like cases have occurred in the shooting of my companion and myself this fall and I have no doubt that in shooting without a dog very many shots that eventually kill are considered misses, to the shooter's great self-dissatisfaction.

I remember shooting at one last year, that was running among some hazel bushes, and with intense chagrin saw him go whirring away through the branches as if he had been fired from a mortar, and apparently unhurt. I could not believe that I had quite missed him, and the feathers found where he was when shot at proved that I had not; so, taking heart, I followed up his line of flight for twenty rods or more, and then gave it up. Retracing my steps half the distance, St. Hubert, or some kindly spirit of the woods, led me to diverge a few steps at right angles with my course, and lo! there lay my bird on his back dead.

I never have seen a "king partridge," nor had ever heard or read of one till Penobscot's entertaining article appeared in your columns. It would be interesting to know whether these singular birds were found only in primeval forests, or sometimes in the woodlands of older settled countries. It is well known that birds and beasts change their habits as their haunts become encircled or altered by the encroachments of civilization; and this may be a case in point.

I need so repeatedly, year after year in the fall, to see ruffed grouse in such unaccustomed places out of the woods, that I came to think this periodical desertion of its usual haunts a habit of the bird, and in a series of articles on "Game Birds" for the *Rural New Yorker*, a few years ago, if I may be allowed to quote myself, wrote of it as follows: "There is a habit of this bird, so common here that I cannot think it peculiar to this region, and yet it is so noticeable, that if it is not so, I wonder I have never seen mention made of it. Here, in autumn, about the time of the falling of the leaf, many individuals of this species are often seen a long distance from the woods they inhabit, and close about dwellings. I have frequently flushed them within a few rods of our house, and once started one from a wagon box under the shed, and saw another in a barn, and one of our hired men actually caught one in the hog-pen. Another was seen on the stoop, and one morning, as we were eating breakfast, another came close under the window near which the table stood; all these, at least, were a mile from any woods which these birds haunt. The theory of an old hunter, that they were frightened from the woods by the falling of the leaves, seems as reasonable an explanation of this curious fact, as any that I have ever heard advanced."

But, late years, the perverse birds have not borne out my statement concerning them in this respect, for I have not seen one under such circumstances for half a dozen years. It is greatly to be wished that such of the thousands of intelligent readers of *FOREST AND STREAM*, as have had an opportunity of observing this bird, would communicate the facts noted respecting this freak, and the "king partridge" matter. It seems late in the day to have to contradict the old-time and entirely false notion, that the ruffed grouse produces the sound known as "drumming," by beating a hollow log with his wings! How long would the wing-feathers endure such vigorous thumping, repeated, in the waning season, perhaps fifty or a hundred times a day for many days? And if the amount of noise produced depended on the resonance of the standing-place of the bird, his performance must needs be an unsatisfactory one to him, when standing on a rock. True, he seldom chooses such a place, but Penobscot is a witness that he sometimes does, as am I, and doubtless many others. Logs are certainly his favorite and usual drumming places, though I should say, not oftener hollow logs than those which are not so. The attachment of the grouse to a particular log explains why prostrate pines are oftentimes chosen, they withering decay the longest. The writer just mentioned gives an excellent explanation of the fall drumming, which every one who has been much in the haunts of the grouse during that season must have heard in warm, still days in October and November.

That companies of grouse will sometimes allow themselves to be shot from a tree, one after another, if they are shot in succession from the lowest upward, is pretty well established by the testimony of a multitude of witnesses, though a high authority in sporting matters pronounces the statement "fabulous and ridiculous." Only a few days ago a friend of mine, whose word I do not doubt, told me of his shooting three from a tree on an Adirondack river, down which he and his companion were boating.

Whether it is fair and sportsman-like to shoot these birds sitting, when the opportunity offers, seems to be an unsettled point, though I apprehend that very few sportsmen let go such chances. For my part, I must confess that I cannot see wherein it is more unsportsman-like to shoot him sitting than to pour a murderous volley into an unsuspecting flock of ducks as they sit in a huddle on the water. Certainly it requires no less skill to do the first than the last. AWARDOOSE,

Burrishburgh, V.

FLIES.—Recently Dr. Leidy imparted some interesting facts in regard to flies. On a visit to Easton during the season of harvesting the wheat, Dr. Leidy writes:

I noticed that the wheat in the vicinity had been attacked by the Hessian Fly. The insect was then in the semi-pupa or so-called "flax-seed state," and occupied the stalks within the leaf-sheathes, a few inches above the ground. In this position, when several insects are together, they so weaken the stem that it frequently breaks down. From this cause, in one large field many stalks with nearly ripe heads were observed to be prostrate; probably to an extent of one-third of the crop. As the insects at harvest time occupy the lower part of the stalks, they are left in the stubble and may be destroyed by burning this. In regard to the house-fly, it is reputed to deposit its eggs in the refuse of stables, in which the insect passes the earlier stages of its life. In the mature or winged condition it seeks our houses. In this state flies are probably not long lived, but appear and visit us in successive swarms. It is not the house-fly which bites, but one of another genus, though closely resembling the former. House-flies are not merely annoying creatures and useful as scavengers; they are filthy feeders, and probably often the agents of communicating diseases. During the late civil war I observed healthy soldiers, with trifling wounds, die of hospital gangrene, which I believe was communicated through the agency of the house-fly. On one occasion, visiting a friend, I observed some toad-stools of a peculiar kind growing on refuse shavings thrown from an ice-house. The toad-stools were covered with a glairy liquid, emitting a strong odor, and containing the spores or reproductive germs of the fungus. Noticing a great many house-flies sipping the liquid I caught some. While holding the flies they would exude from the proboscis minute drops of the liquid; and this, on examination with the microscope, was found to be full of the fungus spores. This instance well exemplifies the manner in which the house-fly may carry materials from one place to another. Thus matters may be conveyed to our food which ordinarily do no harm, but which may prove to be poison if communicated to a wound or introduced into the blood. As the house-fly passes its earlier stages of life in the midst of stable refuse, we would perhaps be troubled with it less if the refuse was kept in a dry state or covered with earth. During the prevalence of cholera I remember hearing persons say that the flies died of it, but I found that the affection of the fly was a common fungus (not foreign) disease."

A REMARKABLE COMBINATION.—In a paper recently read before the Philadelphia Academy of Natural Sciences, Prof. Gill and Dr. Bransford give the results of their investigations of the fish fauna of Lake Nicaragua. These results are most curious and interesting, for, although this lake is perfectly fresh, and abounds in characteristic fresh-water types, these savans find associated with them marine forms equally characteristic. Among these marine forms are a species of tarpon (*Megalops*), a shark and a saw-fish. As remarked by *Nature*, a similar combination occurs in the Philippines, where in a fresh-water lake a sawfish and a dogfish are found. The *Megalops*, however, is not known elsewhere in water so isolated from the sea. Of course the probable explanation of the occurrence of such forms is, that these salt water fishes were detained in arms of the sea, which by some convulsion of nature were cut off from the ocean and gradually became fresh-water lakes. We notice that recently Prof. Marsh, of Yale, has described a ray, which is a truly marine fish, from the freshwater deposits of the Rocky Mountain Eocene. A case clearly in point.

HONORS TO DARWIN.—The University of England has conferred upon Darwin the degree of Doctor of Civil Laws. The event is memorable, both as a well merited, though tardy recognition of the great scientist's work, and also as a victory for the anti-clerical party of the university. Notwithstanding Mr. Darwin's illustrious rank in the scientific world, the clerical power in the governing bodies of both Cambridge and Oxford has hitherto barred the due acknowledgement of his work. The *New York Herald* says:

Mr. Darwin's friends presented themselves in great force, determined that the moral effect of a large representation of scientific and literary men present in the interest of the heretofore-neglected scientist should not be wanting. Undergraduates thronged the galleries of the great hall, and the desire to see the savant of Down was universal.

The undergraduates indulged in the usual license of such occasions, and at a critical moment in the proceedings an effigy of a monkey robed in an undergraduate's gown was lowered into the middle of the hall from the most prominent point in the gallery. This effigy bore a legend in large letters, "The Missing Link." Notwithstanding all this chaffing and laughing, there was much sincere enthusiasm.

CORRECTIONS.—In the list of plants valuable for fish ponds, published in our last issue, were several errors, which will be found corrected in the following list:

Zemichellia palustris, *Phragmites communis*, *Glyceria Canadensis*, *G. elongata*, *G. acutiflora*, *G. fluitans*, and *G. aquaticae*; *Spartina cynosuroides*, and *S. stricta*, var. *glabra*; *Calanagrostis Canadensis*; *Zizania aquatica*, *Carex comosa*, *C. crinita*, and *pseudo-cyperus*; *Scirpus polyphyllus*, and *S. eriophorum*; *Nesaea verticillata*, *Polygonum amphibium*, and *P. pennsylvanicum*. The Horned Pond should have been called a Naiad, not a Naiadly.

—Mr. Ernest Ingersoll tells us that he would like to exchange pamphlets upon zoological topics, of which he has a large quantity of duplicates, for land and fresh water shells (snails, etc.), from any part of the country. His address is No. 251 York st., Jersey City, New Jersey.

—The endorsements of chemists and physicians can sometimes be bought. But simple truth finally prevails. Therefore B. T. Habbit's Toilet Soap fears no rival. People are finding out that this new toilet soap is absolutely the perfect superlative in saponaceous comparison. It doesn't take long to be convinced of this fact, as manufacturers of scented soaps are discovering. Its purity and excellence will be sure to win the day.—[Ad.]

## Woodland, Farm and Garden.

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, SEN. N. Y. HORTICULTURAL SOCIETY.

## DECEMBER.

And after him came next the chill December;  
Yet he, through merry feasting which he made,  
And great bon-fires, did not the cold remember;  
His Saviors' birth his mind so much did glad.  
Upon a slawgy-bearded goat he rode,  
The same wherewith Don Love in tender years,  
They say, was nourish by th' Jean Mayd;  
And in his hand a broad, deep howl he beares,  
Of which he freely drinks an health to all his peeres.

—SPENCER.

## THE EARLY ROMAN HYACINTH.

THIS charming early flowering variety, so dwarf and free, and bearing such chaste, delicately-scented white flowers, is now largely imported from France, Holland and Belgium for forcing purposes. Owing to the increasing yearly demand for it, it has been quite scarce this season, and an enhanced price has been the result. This will scarcely affect its growth, however, for market, Mr. Murkland, of Messrs. Young & Elliott, 12 Cortlandt street, informing us that their sales this season have been larger than ever, they not being able to supply the demand with a stock of over 100,000 bulbs. It is much admired by the ladies for its chasteness and fragrance, and is so useful to the florist, being devoid of all stiffness. It can be used with effect in any design that any one taking notice of their various stores cannot fail from the first of November until May to see them displayed in large quantities in their windows. It can be forced with great rapidity, and the bulbs, though not nearly so large as those of our ordinary hyacinths, each produce several spikes of flowers. There is a blue form of this, sometimes called Parisian Hyacinth, that is a little later in blooming, but is also very useful. Even when there is no artificial heat, a few of these early flowering hyacinths can be had in bloom some time before the ordinary hyacinths, even when planted at the same time. A rather pretty way to grow them is to take a six-inch pot or even a sump plate, and placing one ordinary hyacinth bulb in the centre, surround it with five to eight Roman Hyacinths, using moss instead of soil, and placing it in the dark till well started into growth. These latter will come into bloom before the centre bulb makes much growth, when they can be cut out, and a few ferns or selaginellas put in their place. The centre hyacinth will have space enough to grow, and will flower as finely as if there had not been an extra crop grown in the same pot. As a matter of course, the soil ought to be good, and it is well to apply a little weak manure water, or sulphate of ammonia in water to the late variety. It matters not what care may be taken of the bulbs of the early Roman Hyacinth, or how scrupulously they may be preserved, they scarcely ever flower the second year, as imported bulbs do.

## BRUNSVIGIA.

MR. PETER HANSON, of South Brooklyn, has again placed us under obligations to him for a most remarkable cross between *Brunsvigia Josephiniana* and *Amaryllis Belladonna*. This specimen (the first of four seedlings, all distinct in character, that has flowered) bears the habit of both parents very distinctly, and although not so pretty as either of the parents, it is quite a botanical curiosity; as it is often said that *Brunsvigia* will not, or very rarely, cross with any other *Amaryllis*. The color of this seedling is a fine dark pink, something like a well-grown *A. Belladonna* major—perhaps darker yet; the shape of the flowers resembles more that of *Brunsvigia*. The bulb, now some seven or eight years old, flowered for the first time this season, while the seedlings of *A. Belladonna* crossed at the same time, flowered over two years ago. The flower scape, some eighteen inches high, bore an umbel-like flower with eight flowers, and, although they do not open very wide, the wavy appearance of their petals and their distinct character will be of great interest to all lovers of bulbous plants, and will even attract the attention of botanical students. The effect of this variety will undoubtedly increase with age, as with the increasing size of the bulb the number of flowers will be larger, and most likely will come to greater perfection.

The Rev. William Herbert, our great author on *Bulbous Plant* says: "All *Brunsvigia* have a cartilaginous margin and broad, recumbent leaves, but if it is, as I believe it to be, distinct from *Amaryllis*, the distinguishing features are, the triangular capsule, which is almost winged and diaphanous, and the petaline filaments not adhering to the petals. B. *Josephiniana* has bred with *Amaryllis Blanda* (*belladonna*), but disagreed with *B. Multiflora* in the insertion of its filaments, and in that point as well as its tube and germen I saw that it nearly agreed with *blanda*, but I was deterred by the curvature of its corolla from removing it from the genus where it had been placed. \* \* \* I therefore wish all who have flowering *Brunsvigia*s to try if they can obtain a cross between them and *A. Belladonna*." That Mr. Hanson has been successful in both crosses cannot be gainsaid; the cross with *A. Belladonna* for the parent is undoubtedly the most striking and beautiful, bearing last season sixteen beautiful pink flowers on one spike, while the cross with *Brunsvigia* for the parent is the greater botanical curiosity.

ENGLISH NAMES OF WILD FLOWERS  
AND PLANTS.\*

(Concluded.)

ALL first attempts at classification, etymological or other, leave a margin of miscellaneous items refusing to be ticked or systematized; and there remain a few names falling under none of the categories which I have cited, yet too interesting to be omitted. Such is Apple, retaining its form in the Teutonic, Celtic, Slavonic, and Lettish languages, and springing apparently from the Sanskrit *ap*, water, which reappears inverted in the Latin *pa* of *Pirus*, *po* of *Poto* and *Pomum*, meaning therefore the water fruit or juice fruit. Such again is Daffodil, the Daffadowndilly of Spenser and other poets. It is a combination of *sapharoun*, or Saffron Lily, with *asphodelus*, the old English Afodilly. With the taste for alliteration often shown in popular names the Sapharoun Lily blending with the Afodilly become by a mutual compromise Daffadowndilly, whence Daffodilly and Daffodil. Foxglove is the Fox's-glew, or tintinnabulum, a ring of bells hung on an arched support. Bedstraw was a plant much used for couches before mattresses were invented, and a species which when dry yields a pleasant scent is still called Lady's Bedstraw. Carnation is coronation, its flowers being used as crowns or chaplets, just as Campion is champion, gathered to crown the champions in a tournament. Cress is possibly from cross, its petals being cruciate; possibly from *erescere*, to grow, in token of its rapid increase. It was used in Chaucer's time, under the form of *kers*, to express any insignificant quantity.

"Of paramours ne raught he not a kers."

From which comes, perhaps, the vulgar phrase, "I do not care a curse," though a yet ruder parallelism has since been manufactured to confuse its spelling and its etymology. Nettle is from *ne*, to spin, indicating that its coarse fibres were used for thread in early times—an idea borne out by Hans Andersen's beautiful tale of the wild swans, in which you remember that the princess was permitted to redeem her brothers from their transformation by weaving them shirts of Nettles. Shamrock is from an Erse word signifying the little Trefoil. The story of its theological use by St. Patrick is of modern date, and it has been taken by various writers to represent the Watercress, the Wood Sorrel, the Dutch Clover, and the Black Medick. Irishmen are divided in the present day between the two last, which are sold on St. Patrick's Day both in London and Dublin. The Snowdrop is so-called from its resemblance to the large eardrops worn by ladies in the sixteenth century, and represented often by painters of that period. The Tobacco was the Indian name for the pipe in which the weed was smoked, not of the weed itself; and Potato belonged at first to a tropical Convolvulus, and was transferred by mistake to the well-known esculent. The Gooseberry was the cross-berry, from its triple spine which frequently takes the form of a cross. The Hollyhock is the eauli-hock; hock being an old name for the Mallow, to whose order it belongs, and cauli, meaning Cabbage, either from its lofty Cabbage like stalk, or, as in Cabbage Rose, with reference to its rich double bloom. The Laburnum closes its petals at nightfall like a tired laborer, and the Ozier is named from the oozy beds, which suit its growth.

I bring my list to an end, not because it is exhausted, but for fear my hearers should become so. I have picked only the most suggestive and curious of our many floral names, leaving an abundant gathering to many gleaners. One branch of the subject I have barely touched, the superstitious practices attaching to many of our wild plants, though not surviving in their names. I have left alone the interesting question of Bible plants, of the Hyssop, the Juniper, the Mustard-seed, the Lilies of the field, the burning bush, the Shittah, the Almag, the Gopher, the curiously mistranslated cab of dove's dung, with the light thrown on their identity by the names given to them in the commentaries in our older translations. Nor can I do more than hint at the rich store of literary allusion to our wild flowers which abounds in all English poets, and the beautiful thoughts suggested to many of them by some particular plant. I should have liked to read you Chaucer's lines upon the Daisy, Herrick's on the Daffodil, Burns' on the Dog Rose, Shelley's on the Sensitive-plant, Southey's on the Holly, Wordsworth's on the lesser Celandine, Longfellow's on Compass-plant. I should like to open volume after volume of Elizabethan and of later days—to enumerate and discuss the flowers with which Ben Jonson bid us "Strew, strew the smiling ground;" the "pretty panche and chevisaunce," of Spenser; the "quiet enamelled eyes" that decked the laureate hearse of Lycidas; "the silver globes of Guilder Rose" which won the heart of Cowper; the "Hawthorn bush beneath the shade" of Goldsmith's lovers; the "slight Hairbell" which raised its head, uncrushed by the airy tread of Ellen Douglas. I should like to remind you of the lessons in natural theology which Paley drew from the "little spiral body" of the Dodder seed; of the star-shaped shadow of the Daisy which Archer Butler showed to Wordsworth; or how Linnaeus, when he first saw the wild Broom in flower—

"Kneel before it on the sod,  
For its beauty thanking God."

Above all I should love to turn with you the page of Shakespeare, to read of the gray discolored head of Lear wreathed with "rank fumiters and furrow weeds;" of Perdita at the shearing feast, disparaging the streaked Gillyflowers as Nature's bastards; of poor distraught Ophelia distributing her Rosemary and Herb-of-grace; of Puck telling how Love-in-idleness was purpled with love's wound; of Titania gently entwining the "female Ivy and sweet Honeysuckle" round the sleek smooth ass's head of Bottom; of Helena and Hermia, "a double Cherry-seeming parted, two lovely berries moulded on one stem." For I should lay on you a spell mightier than I can force myself—I should invoke allies before whom we all bow as the source of our intellectual happiness and growth; I should remind you how the most creative minds have drawn nutriment from these tenants of our hedgerows and hill-sides, and how the knowledge of their lore helps us in its turn to interpret the sweet thoughts and apt illustrations of the poets they inspired and delighted; how, if the aspirations of my Cambridge botanist were fulfilled—if the Daisy could become the *bellis*, the Strawberry the *fragaria*, the Honeysuckle the *caprifolium*, the Heather the *caluna*, the parting genius of romance and myth and association and folk-lore would be sent sighing from the domain of botany, and the richest and

most attractive of the natural sciences would become the dull-est and the most neutral.

In conclusion, let me disclaim all merit of originality in the ideas which have been put before you to-night. I have but attempted to bring together, with the interest attaching to cumulative illustration, conjectures which have been started and discoveries which have been worked out by others. Scattered through the old-fashioned tomes of Cole, Lyte, Parkinson—through the pleasant pages of Loudon, Pratt, Johns; above all, in the most valuable work on popular botany which we owe to our Somersetshire naturalist, Dr. Prior, you will find all or nearly all that I have advanced. The flowers were plucked by other hands; mine has been only the *pia dextera* to sort and wreath them.—*Nature*.

For Forest and Stream and Road and Gun.

## THE MOST PROFITABLE SHEEP.

DIFFERENCE BETWEEN SHEEP-MEAT AND MUTTON.

*Friend Hallock*—If you will kindly make room in your agricultural department for a few additional remarks on sheep, I will promise to have done with the subject. Which class of sheep is the most profitable to the farmer? is a query much more easily made than answered. Indeed, the solution of the problem depends on so many and such varied conditions, such as climate, soil, locality and value of land, as to preclude a definite answer.

Under certain contingencies, the profits of sheep breeding are derived solely from the increase of the flock and the annual yield of wool; but this, by far the most extensive branch of sheep husbandry, is necessarily confined to such pastoral countries as Texas, Colorado, California and New Mexico, where, as yet, the shepherd can command free of all cost, and all the year round, a perennial and unlimited range for his flocks. Of course, in the older States, with a ruder climate and a circumscribed range within inclosed high-priced lands, it would be folly to dream of competing in the production of wool with the boundless grass-covered plains of the Southwest, which are free to all without limit and without price. Hence we are compelled in our sheep-breeding to look for our profits to the meat market rather than to the woolen mills, and it is upon this particular branch of this great agricultural industry that I propose to address you a few remarks.

Henry S. Randall, in his admirable letters on sheep husbandry, tells us that in selecting a breed for any particular locality, we must take into consideration, first, the feed and climate, or the surrounding natural circumstances; and, second, the market facilities and demands. We should then make choice of that breed which, with the advantages possessed, and under all the circumstances, will yield the greatest net value of marketable product.

Rich lowland herbage, in a climate which allows it to remain green during a large portion of the year, is favorable to the production of large carcasses. If convenient to markets where mutton finds a prompt sale and good prices, then all the conditions are realized which call for a mutton, as distinguished from a wool-producing sheep. Under such circumstances, the choice should undoubtedly rest between the improved English varieties—the Southdown, the New Leicester, and the improved Cotswold or New Oxfordshire sheep. In deciding between these, minor and more specific circumstances are to be taken into account.

If we wish to keep large numbers, the Down will herd—that is, remain thriving and healthy when kept together in large numbers—much better than the two larger breeds. If our feed, though generally plentiful, is liable to be shortish during the droughts of summer, and we have not a certain supply of the most nutritious winter feed, the Down will better endure occasional short keep. If the market calls for a choice and high-flavored mutton, the Down possesses a decided superiority. If, on the other hand, we wish to keep but few in the same inclosure, the large breeds will be as healthy as the Downs. If the pastures be wet and marshy, the former will better subsist on the rank herbage which usually grows in such situations. If they do not afford so fine a quality of mutton, they, particularly the Leicester, possess an earlier maturity, and both give more meat for the amount of food consumed, and yield more tallow. Doubtless, my dear Hallock, you, as a discriminating and traveled gourmet who have enjoyed the tid-bits from the most succulent flesh-pots of both hemispheres; who, like our friend Charles Hutchinson, are an ardent disciple of the great Savarin, and whose dictum like that of the illustrious Mr. Sam Ward can make or mar the fortunes of aspiring cooks, have more than once deplored the general absence of good, ripe mutton from our American tables. Does not the water come into your mouth as you remember, with fond regret and perchance covetous longing, the magnificent mutton of old England; the juicy haunch from a four-year old black face, fattened on those Grampian Hills where erst the young Norval tended his father's flocks, or the delicious saddle, marbled with lean and fat of a ripe wedder, South-Down grazed upon the breezy down of Hampshire? Such mutton as our friend Jim Sanderson, of festive memory, was wont to serve at the Langham? Or, better still, the incomparable and super-delicious of Wales, fattened on the thymy and aromatic pastures of grand Old Snowdon. Oh! why is it, that save a saddle imported from England or Canada ready dressed, we can get no such meat in your good city of Gotham? And who is responsible for this sad privation? First, the breeder, whose uneducated palate leads him to sacrifice quality to quantity, and favor to fatness, and who, in his barbarous ignorance, fancies the coarse-grained fat and tallowy carcass of a Cotswold makes as good mutton as four-year-old Southdown, and who accordingly breeds his native ewes to these large breeds, and drives the produce to market while the meat is yet pale and flavorless from immaturity. But it is not the farmer alone who is to blame in this matter. The butcher is equally criminal, except when he palms off yearling meat for spring lamb, or dresses a lean carcass with the fat from another sheep. He has no regard whatever to the age of the animal which he slaughters, provided always that he finds a profit in it. But the unpardonable sin of the butcher is that he will as often as not slaughter sheep while its stomach is yet more or less filled with undigested food, hence that horrible sheep—erroneously called wool-taste so common in New York mutton.

Speaking of this atrocity to Mr. Reybold, the famous peach-grower and sheep-breeder of Delaware, he explained the cause of this wooly taste very clearly. "If," said he, "there be even as much as a handful of undigested food in the stomach of a sheep when slaughtered, it immediately enters into fermentation, and the gases so generated within an incredibly short time pervade the whole of the flesh, and imparts to it that taint vulgarly called the 'taste of the wool.'" Here is a hint to young sportsmen—old ones don't require it—never fail to

eviscerate any furred game which you may kill before it gets cold.

But, admit you by chance get a prime saddle of mutton, what becomes of it? In nine cases in ten you clap it into one of those infernal cast iron contrivances called a cooking-range, from which it is withdrawn a sodden mass of baked meat utterly deprived of that divine osmazome which should be the diet in the next world of all great culinary artists, as a reward for the good they have done in this.

Though doubtless there are many exceptions, I never have met, in the whole course of my experience at the North, but two gentlemen who fed and slaughtered their own mutton; but they were accomplished, traveled men, with palates educated to distinguish between sheep-meat and mutton. Thrice blessed are they who have tasted the five-year-old Southdown mutton of Mr. Webster, at Marshfield, and the succulent grade mutton of Mr. Edwin Thorne, at Thorndale. In the Southern States it was different, or rather was far different in the ante bellum days. Good mutton at the watering-places, in the mountains and on the plantations of Maryland and Virginia, was the rule and not the exception, and this was natural because the mutton producers were large landed gentry, with educated palates, who abominated patent cooking stoves, and who competed with each other as eagerly in the production of good mutton as they did for the brush in a fox chase or a prize on the road track or cock-pit.

Who that ever visited the Berkley Springs, in Morgan County, Virginia, does not retain an appreciative remembrance of the mutton, bred and fattened at the Bower, the famous Dandridge estate in Western Virginia, and buried in ice for days before being served at the table, roasted before a quick wood fire, with that consummate judgment which the experience of years alone can give to old Aunt Dinah or Polly, the sable divinities of the kitchen?

And who, who has ever tasted it, can forget the mutton of the Eastern Shore of Maryland, bred by a Lloyd or a Charley Tilghman, slaughtered by a Turner, and served at the Maryland Club, with Otto Williams in the chair, with Jim Carroll on his right hand and Harry on his left! F. G. S.

## MUSHROOMS AGAIN.

WE have in this country (England), many species that are more or less fit for food, but owing to the imperfect knowledge which the generality of people possess respecting them, they are for the most part neglected. Fungi are much used as food in Australia by the natives, and kangaroos are said to search for and devour them with avidity, while in Terra del Fuego a species of *Cyttaria* (*O. Durvini*) forms the most substantial food of the natives during lengthened periods. In Northern Europe many different species of Fungi form a staple article of daily food. In Norway, Sweden and Russia species that are here considered either poisonous or worthless are there preserved in large quantities for use during severe and protracted winters. Among the kinds most used for food in Northern Europe we may instance various *Agarics*, as *A. deliciosus*, *A. Rosella* and *A. melles*. Three or four species of *Boletus* are also regularly eaten in large quantities. In Russia all the edible species, and many which we regard, as a rule, as unwholesome, are either grilled with butter and oil, or boiled in water, and then preserved for several months in vinegar, highly seasoned with pepper and other condiments. This last plan is a tolerably safe one for testing questionable species. Tons of edible mushrooms are annually dried in ovens for winter supply in Northern Europe, where gigantic pine forests furnish ample supplies. We are, therefore, much behind our neighbors as regards the conversion of fungi into wholesome food. The only kinds at present used either in this country or in France are the common field mushroom (*Agaricus campestris*), horse mushroom (*A. arvensis*), Truffle (*Tuber estivum*) Morel, (*Morchella esculenta*), and occasionally *Agaricus personatus*. In addition to these we have repeatedly eaten the vegetable beefsteak (*Pistulina hepatica*), a fleshy parasite on the common Oak, the gravy from which is most delicious; the taste of the Fungus itself, however, more resembles that of a bullock's liver than a juicy steak. *Agaricus procerus*, the parson or partridge-breasted mushroom, with its near ally *A. rachodes*, we have repeatedly eaten stewed in milk, much to the horror of our friends. Although both are superior to the best cultivated mushrooms as regards delicacy and flavor. The pretty little fairy-ring champignon (*Marasminus orades*) often found abundantly in pastures, is one of the best of all the edible kinds, either when eaten fresh, or when dried for soups and soups. In addition to these we have *Boletus edulis*, *B. scaber*, *B. flavus*, *Giantic Puff-ball* (*Lycoperdon gigantum*), *Cantharellus cibarius*, *Lactarius deliciosus* and *Hydnum repandum*, besides many others less generally known as respects their esculent qualities. In recommending Fungi as food-plants, we have to contend against two of the greatest obstacles to progress—ignorance and deeply-rooted prejudice; but we hope yet to see the time when both good and bad Fungi will be better known than at present. In selecting Fungi for food the recent cases of poisoning show that caution must be exercised, or unpleasant consequences may be the result. Nevertheless, most of the species which we have named are easily recognized without any special knowledge, and they are all not only palatable but in many cases, when nicely cooked, delicious. It is perhaps too much to expect that elementary lessons on botany should be given in our schools, but it seems an oversight to send youngsters adrift without any knowledge of our commonest food-producing plants. Our best authorities agree that edible Fungi possess nutritious properties in a very high degree, and it is to be regretted that valuable food should be lost in large quantities, simply because we lack the knowledge necessary for its collection and utilization.—*The Garden, London, Eng.*

PRESERVATION OF FORESTS.—The Forest Association of Chicago has presented memorials to both Congress and the Senate, advising the appointment by those bodies of a competent commission to proceed to Europe and examine the forestry regulations of the different countries there. The object is the adoption of such of the European legislation as may be employed in our own country for the preservation and cultivation of American forests. The matter has been referred to the Committee on Agriculture. It is to be hoped that the present movement may not be confined to the committee rooms. The statistics contained in the last number of *Scribner's* incidentally referred to by us last week, together with others equally suggestive, should contain sufficient warning to insure some effective action in the matter on the part of our legislators.

\* Lecture by Rev. W. Tuckwell before the Somersetshire Archaeological and Natural History Society.

**NEW YORK HORTICULTURAL SOCIETY.**—The regular monthly meeting and annual election was held Tuesday, Dec 4, at their rooms, 55 W. 33d street. The following gentlemen were elected officers for the ensuing year: President, James M. Paterson, Newark, N. J.; Vice-Presidents—R. H. Rathbun, South Amboy, N. J.; Wilson G. Hunt, N. Y.; Thos. C. Acton, N. Y.; C. C. O'Leary, N. Y.; Treasurer, Isaac H. Young, N. Y.; Corresponding Secretary, L. M. Delamater, N. Y.; Recording Secretary, W. J. Davidson, Brooklyn, N. Y. The gentlemen elected for the various committees are all thoroughly posted in everything connected with their various duties, and we prophesy a still further success for the N. Y. Horticultural Society for the ensuing year.

**NOTICE TO SPORTSMEN.**—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting.  
F. O. Box 1,294.—(Adv.) ABBEY & LEBEL, 35 Maiden Lane.

## The Kennel.

**TO CORRESPONDENTS.**—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age. 2. Food and medicine given. 3. Appearance of the eye; of the coat; of the tongue and lips. 4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc. 5. Breathing, the number of respirations per minute, and whether labored or not. 6. Condition of the bowels and secretions of the kidneys, color, etc. 7. Appetite; regular, variable, etc. 8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the forehead. 9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

### PHILADELPHIA DOG SHOW.

PERHAPS it would be wise, before entering into the special details of the bench show in Philadelphia, to give, somewhat briefly, our ideas in regard to such weight as the decisions of judges may have upon the merits of dogs. We beg to remark that such opinions as we may advance are by no means to be considered as applicable to the Philadelphia bench show alone, but to all shows. Of course there is the absolute necessity that some particular body of gentlemen, known, firstly for their probity, and secondly for their knowledge, should be organized, which body shall have the power to pass judgment. As diplomas are given in colleges which owe their value to the worth and acquisitions of the professors, exactly the same machinery is brought into play when awards are given to animals. Still, like all human matters, such organized bodies, whether judging of the personal merits of men or dogs, are subject to errors. Man's appreciation of mundane matters is not always the same, and so comparing again college graduations and certificates of excellence given to dogs, other than in field trials, it often happens that a dog which passes first in one bench show, sometimes is the recipient of a third or fourth award, or is occasionally entirely passed over in other shows; hence the frequent heart-burnings which invariably follow the decisions of the judges at bench shows. A good deal of caviling invariably follows the decisions of the judges, which, when sifted out, amounts to little or nothing. Sometimes the idea is advanced that journals devoted to sporting topics, have a certain influence over judges; even that newspapers endeavor to control such appointments as are made. We must repel such aspersions with scorn, not only for ourselves but for all our contemporaries. As for the FOREST AND STREAM AND ROD AND GUN, though we may own dogs, we have never allowed one to be exhibited, and as long as we conduct our paper we never will. Still we do not mean by this to state that any gentlemen attached to journals devoting their attention to legitimate sport, shall not exhibit dogs; still, for ourselves, we must decline putting in prominence any animals we may be possessed of. Returning again to the powers vested in certain gentlemen to decide on the merits of animals, we must remark that we have yet to find out, after the most careful scrutiny, that a single decision has ever been made which was brought about in any other than the most honorable way. Of course we, like any one else, may differ occasionally from such judgments; but we are just as likely to be mistaken as any one else, and we are the last to set up any *ex cathedra* dicta of our own. There seems, however, to be this trouble about it: There are many States where very nice dogs abound, and in several instances we have been asked how matters should be managed when no kennel club existed and where the desire was expressed to have a bench show. In all these cases we have expressed ourselves in regard to the appointment of judges as follows, "Do not decide upon the appointment of judges until all your exhibitors are present; then call a general meeting, and, having made a ticket of judges, excluding all newspaper men save in an honorary capacity, choose, by a ballot of exhibitors, who shall be the judges." If this does not give the authority which a kennel club imparts to awards, it is the very next best thing to do. Of course the rules to be adopted must be the same as those enforced by the National American Kennel Club. As to exhibitors themselves being judges, we see no harm in having in a judge of setters a person having pointers on exhibition, though plenty of gentlemen can be found who have no

direct interest in the animals exhibited. As to the awards given in Philadelphia, we consider them just as worthy of credit, from the sportsmanlike knowledge, loyalty and high social position of the judges there, as if given by the most prominent English kennel club, quite indifferent as to whether the Pennsylvania Kennel Club was founded a century ago or was an organization of but yesterday.

Perhaps the locality of the Philadelphia show was a trifle too small for the number of dogs, and the piling of one dog above another was confusing. Still it should be remembered that Mr. Goddard, the manager, had, at the last moment, sent to him many more dogs than he expected; and so the arrangement was the best that could be made.

In the champion English setters, Mr. Morris' Lark, showing the fine race due to Mr. Raymond's stock, was a good winner; in the bitches, Mr. Gumbes' Fairy II, white and orange, was worthy of the award, though we deem her a trifle too fine, showing somewhat the bad effects of too close breeding. Among the champion Gordon setters, Mr. Tileston's Lou is a good animal, though we have always deemed the short head and blunt muzzle she carries as a defect; but we must state that this is occasionally a characteristic of the Gordon. In discriminating on to the points of the Gordons, one of the highest total of figures is given precisely to the head of a Gordon. We may remark here that generally the Gordons at the show were not good. The typical colors—the true black and tan—were not well marked. In class 5, imported setters, or the progeny of a first generation, Mr. Tileston's Frank was an easy winner. Frank is a good choice animal, showing power and strength. If not very fine he is put together admirably well, and is an animal with no end of sterling qualities. In the second prize awarded to Fame, there was another dog, Nick, which we deemed a close competitor. The No. 9 in the catalogue, Mr. Colket's Echo, was a wonderful dog for size and peculiar beauty of head; but we are afraid his huge proportions might have incapacitated him from work, though we had occasionally seen these Brohidnagian brutes who, if not fast, were close and steady plodders. We suppose Echo to be among the biggest of the Laverack get. Of native English setters, Major Brown's Grouse was an admirable example. Grouse is simply a superb dog, with no end of fine points. What stock Grouse comes from, we could not determine. Perfectly unknown, it speaks well of the knowledge of the Philadelphia judges that Grouse should have been selected as first in a class of some fifty-five dogs. The No. 36, Ned, was a fair choice for second, though Mr. Waltman's Bismarck, a lovely white and lemon, might dispute the palm. The No. 23, Don, and the No. 20, Dash, were very good animals.

In native English setters, bitches, Mr. Hunn's Lill was a fair dog, though Flora, belonging to Mr. J. B. Bradley, was a good first. Mr. Hardy's Daisy, we think, was so close to Flora that there would have been little to choose between them. We are, however, pretty certain that the thorough examination given to these dogs by the judges, showed some points in Flora which Daisy did not have. No. 66, Mr. H. P. Norris' Letitia, with the curious black rims around the eyes, a beautiful beast, was properly commended. In dog puppies, class 6, Dash, an eight months puppy, was a good little fellow, though the Nos. 82 and 83, Frank and Sam, would run him close as to prettiness. Mr. Packer's Clyde was as likely a puppy as we would want to see. In bitch puppies, 87, Dr. Dolan's Gyp would have been our choice. In Irish setters, class 7, Mr. Ellis' Guy was a perfect choice. We have rarely seen a "red" better put together, or with a finer mansarred head. We would highly recommend Guy's progeny. We should judge, if not too high strung, he would be admirable in the field. The No. 96, Mr. Fassitt's Sport, we did not admire; his spunk for a puppy was good, though he was hardly as well bred a dog as the No. 96. In native red or red and white setters, Irish or cross, class 8, the No. 100, Mr. J. W. Fassitt's Jim, was a good winner, as he deserved. 109, Mr. Morris' Don Juan, we thought, ought to have a higher recognition for his good style, though 117, Mr. Davis' Glen, was a choice animal. In native bitches, class 8, Mr. McLinden's Nellie would have been all right, if not for having been a trifle off color. 120, Mr. Ash's June was a good one, and perhaps a shade better. For puppies, Mr. R. Torpin's Prince was a good selection. In class 8, Mr. Johnson's Belle was a fair animal. In class 9, a general class of Gordons, we were not favorably impressed. Mr. Struther's Sport was off color every way; Mr. Bergen's Don was better. The class was evidently a difficult one to manage and the choice troublesome to make. If there are good Gordons in Philadelphia they were not on exhibition. In bitches, Midge, a winner, was only fair, though she was very much superior to Belle, the second winner. In class 10, pointers of fifty pounds and over, there were no end of very fine dogs. The winner, 160, Mr. Staiger's Frank, a liver and white mixed, ought to have had a hundred prizes, so fine is he, and the judges showed their acumen in making him first. If space allowed, we might devote no end of it to Frank's choice traits and fine qualities. The No. 143, Mr. C. W. Emerson's Shot, deserved the second prize. But we must not forget the No. 144, Mr. Ehinger's Bungo, a capital animal in every way. No. 147, Mr. Edward's Trim, for strength and power is a good example of the old-fashioned pointer. In the bitches, class 10, Rose, though alone of her sex, deserved her prize. In class 11, pointers under fifty pounds, Mr. Hellmich's Dan was good in every way. In the bitches, Mr. W. Copeland's Juno, a white, lemon and roan flecked, had a lovely head and was superb all over, showing strength of limb and power of work. Mr. Tileston's 174 was a fair second, though we might have preferred the No. 176—Mr. Ely's Nel-

lie. We think she had higher merit than 174. In regard to puppies, Mr. Hellmich's Black, No. 177, there could not have been two opinions as to Black being the first choice.

For special prizes for the best stud pointer, Mr. Hellmich's Dan was just as it should have been. Dan is a noble brute with the right kind of a head and good form of body, and has, we believe, imparted to his progeny all his good qualities. Grouse, whose excellent qualities we have before announced came in for a third special. Mr. Frank Furness' Frank, for best stud setter, with two of his get, made as fine a trio of dogs as could be shown in any exhibition. As good big fellows, Mr. Furness' dogs are beauties, and have all those sterling qualities, which, at a single glance, are readily appreciable to a sportsman's eye.

In the class 14, water spaniels, there was some difficulty to a classification of dogs. It seems so strange that men should own dogs and not discriminate as to breeds. Water spaniel field spaniels, cockers, springers, were all mixed up. Some subdivision having been accomplished, judging was made easy. Generally, the collection was not first-class, and for water spaniels no award was given. Nellie was a fairish dog but undersized, we thought. The No. 192, Lady, owned by Mr. J. McIntyre, was a very nice animal. Lady showed signs of work, as her nose had been rubbed clear of hair. The fairness of the judges and their knowledge was shown in this choice, as Lady was brought in by her owner just as she was taken from work. The No. 205, Mr. McGargy's Don was a nice brute, as was 203, Mr. Heywood's dog. In fox hounds, as we noticed in our first article, the exhibition was superb. A finer selection than the Rose Tree pack cannot be found in the United States. As a club, the Rose Tree Hunt is about ten years old, and the most judicious drafting has been made. Every award was appropriately given in the class, the Rose Tree pack and Mr. Rawlings' and Mr. Clayton's dogs coming in for prizes. We often receive letters from Southern gentlemen, wanting a new infusion of blood into their packs. Here is where it should come from. Southern hounds in time run, we think, a little too fine and tuckered up. It is with these Pennsylvania dogs that a stronger impression, a lustier streak, can be acquired. We understand that with all of these packs *even running* (not one dog fast and one dog slow) is what is looked for. Some of our vaunted New York and Long Island packs scatter out in the field like the streamers of an aurora borealis. What is wanted is even-paced dogs, running all together. The Pennsylvania blue stock is due to the Gould strain, and the Tan stock come from Scragg on the Susquehanna.

Beagles, in the show, were, all of them, too close to their progenitors the fox hounds, being too big. We want beagles of such a size that a man with two big pockets can stow away a half dozen dogs in these receptacles. We require then the microcosm of a fox hound somewhat, with legs shorter and little bowed, to hold his weight. In bitches, 223, a prize winner had not the proper ear. The beagle ear should not be pointed, but have a full round swoop. The No. 226, Queen, was a better type, and the No. 231, Mr. Pownall's Jack, though a little wrong otherwise, had a proper ear. We do not think any one in the country has a better knowledge of the dachshund than Dr. Twaddell, nor a choicer strain of these dogs. There are no end of fine points about a dachshund. We want bone, plenty of it, and a fine coat and a choice head—a long rounded ear, which must hang close to the cheek, though when you look at the back of the head it must stand out. The dog must have a fairly big shoulder blade, strong legs, and claws big enough for a beast of twice his size. Dr. Twaddell, though his order of merit was somewhat reversed, called almost all the fruits of victory. Unfortunately there came too late for entry a noble pair of dachshunds of a larger size, owned by Mr. Lester—Puck and Nellie—which would have gained prizes if they had not been forcibly ruled out. In greyhounds, class 20, Mr. C. T. Yerkes' Leo, a few No. 216, was a good winner, though unfortunately entered among miscellaneous dogs. The No. 463, a fawn greyhound, Pat, we are quite positive was as good, if not a better dog. This whole collection of greyhounds was quite choice. There were but two entries (regular ones) in class 18, fox terriers. Neither of the dogs were fine pointed enough as to noses, though one dog, the second prize, was beautifully marked with his white ears. For Italian greyhounds Mr. E. L. Campbell's Vic, the No. 249, deserved the award she received.

In Newfoundlanders there was some grumbling as to the awards. We have always insisted that the amount of blundering as to Newfoundlanders in dog shows was immense. The true Newfoundland is not a big dog, and ought not to have curly hair. Though entered as one class in the Philadelphia show, we think a very proper discrimination was made as to sizes by the judges, Messrs. Wister, England and Furness. One class was made of the big dogs, called the St. Johns, and another of the smaller dogs, the true Newfoundland or lesser Labradors. The best big dog and the choicest small dog were selected as first and second prize, each one being the best of his kind, Mr. Picot's dog winning the second prize. The Siberian dogs or Ulm brutes, were in quantity. In pug collection was excellent and the awards judicious. Pug fanciers must recollect that lolling to gages are at a discount nowadays, and that medium sizes are what are wanted. In Scotch terriers the show was profuse, and Jack was a good winner. In the Skyes, a difficult class, for there were many of them, the No. 417, Dr. W. Sanderson's Donald, was the proper prize winner. The time will come soon when we must have special shows of peculiar classes, and we think, regard to these fancy breeds of dogs, Philadelphia can exhibit



Bitches.—James Farley, Phila, Dolly, 7 yrs, highly commended; Thos Coffe, Phila, Nellie, 5 yrs; Theo Schriber, Phila, Rose, 6 yrs; James Cuy, Phila, Floss, 20 mos; Andrew Dougherty, Phila, Nell, 3 yrs; Dr Wm Sanderson, West Phila, Fannie, 3 yrs, 4 m; James H Clark, Phila, Nell, 2 yrs; J H Brown, Phila, Pink, 2 yrs; O L Sharplee, Phila, Totty and 2 pups; E Daly, Phila, Fannie, 13 mos; D Wright, Phila, Fannie and 2 pups, 20 mos; H Kisteman, New York, Lucy, 15 mos, very highly commended; Miss Edith Rawle, Phila, Fidget, 10 mos; Mrs F A Miller, Phila, Fan, 3 yrs; W A Haines, Jr, N Y, Beauty; Arthur Schaffer, Minnie, 7 mos.

Class 32.—Dandie Dimont Terriers.—No entries. Class 33.—Scotch Terriers.—Dogs—Thos Little, Phila, Rip, 5 yrs; James Cuff, Phila, Mouse, 2 yrs; Miss Smith, Phila, Frisk, 3 yrs; Edw Daly, Phila, Jack, 3 yrs, 1st prize; M McCool, Frank, 15 mos; W Duke Murphy, Phila, Nix, 7 mos, very highly commended; Mrs Eissman, Phila, Sport, 2 yrs; J Spangler, Phila, Ben, 16 mos; H G Clay, Jr, Phila, Dot, 2 yrs; H S Redfield, Phila, Mop, 19 mos, 2d prize.

Bitches.—A W Sloane, Phila, Fannie, 2 yrs; W Duke Murphy, Phila, Muff, 7 mos; P McGrath, Phila, Gyp, 5 mos. Class 34.—Long or Silk-Haired Terriers.—No entries.

Class 35.—Miscellaneous Dogs.—N W Thorp, Phila, Fred 2 yrs; Mrs E Bresford, Phila, Beauty, 2 1/2 yrs; Miss G E McColl, Phila, Pat, 10 mos; B E Walton, Phila, Tip, 2 1/2 yrs; Wm L Ebbins, Phila, Ponder, 6 mos; J F Tribbit, Phila, Tip, 3 mos; Thos Learning, Phila, Frank, 8 years, 2d prize; Geo Stelwagen, Phila, Reno 3 yrs; F Meyer, Phila, Sultan, 3 1/2 years; Wm Galbraith, Phila, Jocko, 6 yrs; Simp, 10 mos; J Collins Duncan, Phila, Fritz, 7 mos; A Priestley, Phila, Prince; W S Armstrong, Phila, Lion; F S Miller, Phila, Little Mac; Mrs Walterford, Phila, Prince; Chas Thomas, Phila, Lion; Wm Saunders, Phila, Rovery, 3 1/2 yrs; Dot, 2 1/2 yrs; S Spiker, 3 1/2 yrs; Geo W Simpson, Phila, Tip, black and tan; Christ Haumle, Cambden, Moika, 1 1/2 yrs; Alexander Glass, Phila, Wolf, 3 yrs; Coleman's Bob, 1st prize.

Miscellaneous Bitches.—Geo A Russell, Phila, Jock, 3 1/2 yrs; Harrington Fitzgerald, Phila, Pinky, 1 yr; Richard Robertson, Cambden, N J, Budd, 16 mos; J W Aldridge, Phila, Fussee, highly commended; Goltieb Coits, Phila, Rose, 1 yr; Joseph Marsden, Phila, Nellie, 3 yrs; H Thorbecke, Phila, Fanny, 3 yrs; Geo O Rodgers, Phila, Rip, 3 1/2 yrs, 3d prize; Wm Jones, Phila, Nip, 2 yrs; Wm Sides, Juff, 4 yrs; Mrs J W Bates, Phila, Jet, 2 yrs; G Dawson Coleman, Phila, Bob, deerhound, 1st 4 1/2 yrs, prize.

Class 36.—Performing Dogs. SPECIAL PRIZES.—The special prize offered for the best stud pointer, with two of his get, was awarded to Max Hellmich's Dan. The prize was a silver pitcher, valued at \$175, presented by Mr Thomas W Sparks of Philadelphia. The second special prize, a painting, by James B. Sward, value \$100, was awarded for best setter to P H Morris, of New York, for Lark. Major J M Brown's Grouse was awarded third special prize in silver fruit dish for best native setter dog, over a year old. Soapshot, Mr Dleston's dog, took special prize (silver collar) for best pointer, and Jacob Staiger's Frank a silver fruit dish, also for pointer, barring champions. A revolver and case was awarded Mr Frank Furness' dog Frank for best stud setter, with two of his get, over six months of age. For best pointer over 50 pounds (excluding champions), a piece of silver was awarded Jacob Staiger's dog Frank. William Copeland's Time received a revolver and case for best pointer under 50 pounds.

FRANK.—The Irish pointer dog Frank, exhibited at the Philadelphia show by Wm. W. Porter, of that city, attracted much attention. The dog shows fine points and high breeding, is lemon and white in color, weighs about 65 lbs., and is valued at \$200.—Adv.

DOGS' REASONING FACULTIES.

SPOTTSYLVANIA Co., Va., Nov. 23, 1877.

EDITOR FOREST AND STREAM AND ROD AND GUN:

I feel as though I wanted to say something of the power of dogs to reason. I cannot help thinking they have this faculty, or if they do not have it they have something so near akin to it, that had I the power I would like to impart that something they do possess, in lieu of the commodity possessed by some of my human acquaintances, and designated reason.

Let me relate an incident or so which happened under my observation among my own dogs, setters and pointers. I bred and owned, in the years 1856-57, a well-bred Virginia setter, who, owing to his propensity for getting into broils and scrapes, was called "Rowdy." Returning one chilly November evening from an all-day's tramp after partridges, I stopped at our village-doctor's office, and as he was a bachelor I allowed my dog to follow me into the office to enjoy with me his nice hickory fire, which I had seen so cheerily shining and blazing through the window. I found in the office with the doctor two of my young friends who were eager to have a chat with me about my day's sport. My dog stretched himself before the fire, and so soon as I had removed my boots, I drew a chair up in front of the fire and placed a foot upon either side of the dog, for the purpose of drying them, for they were quite damp. The fire soon became unpleasantly hot for the dog's bare nose, and for an instant, thinking the nose at fault instead of himself (people do the same thing sometimes), he began to scratch it with his claws vigorously; failing to get relief, he covered his nose with his feet, and for the moment "was happy." To teach him good manners I gave the coals under the wood a gentle stir, which made the heat become so oppressive to my friend as to cause him to spring with a rude bark and much pawing into the centre of the room, much to the amusement of the company. After cooling off a little I observed him looking very intently, first at my feet and then into my face, all the while wagging his faithful tail, and uttering a low, distressed whine. Thinking he had not entirely recovered from the disturbing influence of the fire, and not being altogether satisfied with my part in the matter, I said nothing. I was, however, you may conceive, much surprised to see him approach my right foot, which was smoking near the fire, and with his forefeet drag it away; and this he persisted in doing so often as I replaced it, and when I ordered him to let it alone he immediately resumed operations upon the other foot, trying to place it in safety. Be assured I keenly felt the rebuke, and now, after a lapse of twenty years, I would not be caught in the same scrape, and feel the rebuke I then felt, for fifty dollars. Yes, it is pleasant for me to think (let others think as they will) that my honest friends can reason, and in this case, without intending it, was able and did administer a sharp and well-deserved rebuke. I had the great sorrow to shoot, for some horrible distemper, fall before last, a fine, glossy black setter, bred by myself, and over which I shot for three seasons, hunting him on partridges and woodcock. This dog I never broke; he broke himself, and was perfectly reliable upon every thing, be it either fur or feather. "Jim Morris" took it into his head that it was disagreeable to me to dismount from my horse, or stoop down to receive a retrieved bird from him, and with great care and dignity would rear up and deliver his game to me. "This dog I hunted so hard one fall that every chance he got he would indulge himself in long naps, and would snore like a steam-wheel steamer. Often he would spring up from one of these naps, pause a moment and listen, and then, with great stateliness, walk to the stable and look into my riding-mare's box; if she was present he would

take himself back to the house-porch and finish his nap; but if she was absent—Well! there was a snort, an earthquake, a greased streak of lightning, and master and dog were together. I have a two-year-old son of his, but they don't breed his sort any more. I could keep this clatter up for an hour, but know you have other use for your valuable space. Before I close, however, let me say to those who think a dog has no reason, or something near akin to it; that he cannot feel a needless insult, or appreciate a kindness offered; that he cannot teach you many things, such as patience, perseverance to endure privation, to bear pain, fatigue, etc.;—that their experience has been very widely at variance from that of Yours very respectfully,

BIRD SHOT.

DEATH FROM A FOX BITE.—In the San Antonio Express, an account is given of the death of a boy from a fox bite. The boy was bathing, and on going out of the water was attacked and bitten by a fox. The fox was killed. The boy's wounds were dressed, and he was apparently getting well, when some sixty days afterwards he complained of feeling unwell and died. "It is believed," says the Express, "that the boy's death was caused by hydrophobia."

It is not at all certain that the boy died of hydrophobia, it might have been a case of tetanus. The question whether other animals than dogs have rabies, we do not consider as yet to have been fully decided. Now that this case of a bite from a fox is mentioned, it may be stated that people are said to have died from bites inflicted by wolves, by cats, and even horses. Certain cases of hydrophobia, brought on by wounds received from a cat, seem to bear some semblance of truth; at least the diagnosis of the disease resembles exactly that of hydrophobia. A somewhat strange statement was made some months ago by Lieutenant Colonel Dodge, U. S. A., who asserts that the bite of the skunk (*Mephitis Americana*) is fatal. Colonel Dodge does not think that death arises to individuals who are bitten by the skunk, because the skunk is afflicted by any malady, but that all skunks are venomous. Colonel Dodge writes as follows:

"I am convinced that the terrible disease is the natural result to man of the bite of the skunk (in the territory designated; Dakota, we believe); and that, while inflicting it on the person bitten, it does not follow that the skunk is himself afflicted with the malady. I judge this to be the case; firstly, from the fact that skunks are very numerous in the valleys of the Arkansas and its tributaries, whilst the number of men bitten each year, with fatal result, is so great and so widely separated, both in location and time, as to indicate an epidemic amongst the skunks, if each were equally rabid, that would soon exterminate the whole race; secondly, from the actions of the biting animals. The bite is not the senseless snap of a rabid animal, but is the result of appetite. The skunk comes into camp in search of food, deliberately sits down on the hand or face of a man, and begins eating. If disturbed, he cocks his tail and stands on the defence; but if a fire is made, or a candle lit, or he is alarmed by noise or bustle, he scampers off into the darkness to return again when all is quiet. Thirdly, that, though I have seen many dogs bitten by skunks, I have never known a dog or other lower animal to go mad from such a bite.

Until the matter is further studied, we must doubt that the bite of the skunk is fatal. In certain northern portions of the United States this creature still exists, and we hardly remember to have heard any cases of death arising from the bite of the *Mephitis Americana*. It should be remembered that of late years this animal has been a great deal hunted for its skin. In regard to wolves, the Indians believe in hydrophobic woles.

THE COST OF RAISING AND BREAKING DOGS.—I am inclined to write you a brief letter upon a subject concerning which many sportsmen are entirely ignorant—it is the cost of raising and breaking sporting dogs. Many may feel indifferent as to whether it costs much or little, but to us who are interested in breeding, and who occasionally sell a pup or a broken dog, this question is not void of interest. When I advertise a lot of well-bred pups at \$30 each or \$75, I know that I am only getting my money back, and sometimes not that. A few days ago a gentleman in the Southwest corresponded with me relative to buying a broken setter dog. My price was \$60 (just about actual cost of breaking). In his reply he said: "I do not consider a native setter worth much more than the cost of breaking—say \$35." Now, this gentleman has either broken but few dogs, or he estimates his time as of little value. Let us suppose, for an illustration:

Table with 2 columns: Item and Cost. Items include One pup (native), value at six weeks; Keeping until five months old; House-breaking, 30 days; Four months' actual work in the field; Dog's keeping, six months; Total. Also includes a section for 'Suppose I pay \$5 to advertise this dog...' and 'Actual loss'.

write this, not to bewail my losses, for I can stand that; nor to find fault, for I have no fault to find; but merely to explain why a well-bred and well-broken dog is worth \$250. Ask Mr. David Sanborn how much it cost to break Nellie, the champion at Hampton. Probably he would not tell you, but if he values his time at mechanic's wages, \$250 would not reimburse him for it. "Fools rush in where angels fear to tread." So I beg of you, my dear brother sportsmen, do not entertain the notion that we dog-men are getting rich, and then invest your bottom dollar in starting a new kennel. If you own a good pup and have no time to break it, I can name a few men such as Waddington, Morgan, Whitford, and a dozen others who might be named, who know how to do it, and if they ask you \$75 or \$100 for educating your dog ready for use, don't begrudge the money. The reason why there are so many half-broken dogs in the country, is simply because the average sportsman expects them to grow like mushrooms in one night.

I expect this letter to be criticised even worse than my little pamphlet, called "Hints on Dog-Breaking," was, but that does not matter if it only throws light on a subject that has been hid so long.—W. H. Holabird, in Chicago Field.

A DOG'S CONSIDERATE REGARD.—There is a very knowing dog, and also a very grateful one, in Newhaven (England). I am acquainted with his ease, because I am on duty there and see the creature frequently. This dog, you must understand, is a Dalmatian, or spotted coach dog, which makes his history the more remarkable; for the breed is not noted for brains. Generally speaking, its accomplishments are limited to sleeping by your horse in the stable, and jumping at his nose when he is on the road. Well, this Dalmatian fell blind; he had a cataract on both eyes. He went groping about the streets and tumbling into gut-ruts, until he stirred up the compassion of my brother in surgery, Beach. Beach, by the way, cares nothing about dogs; he has no fondness for them whatever. But he said it was a pity to see this wretch struggling and suffering in that style, if the thing could be helped. So he got hold of his subject, had him tied and chloroformed, operated on him, and removed the cataracts. The sight, in short, was restored completely.

Ever since then this Dalmatian has been a monster of gratitude, and absolutely worships and haunts and bores his benefactor. It isn't because Beach feeds him. Not at all. Beach isn't of that sort. He is not a dog-fancier nor a dog provider. He might think a dog wanted an operation, but he would never think he wanted a bone. Well, all the same, the Dalmatian adores him. He is a savage brute; he will bite any body else, including his master, but from Beach he will take any sort of maltreatment. Perhaps the most curious thing about the ease is that he keeps some account of time, and knows the days of the week and hours of the day. This is very extraordinary, of course, but it is absolutely certain.

Beach, you must understand, lives out of town, and only comes in twice a week to attend to his duties there, once on Wednesday at ten in the morning, and once on Saturday, at three in the afternoon. Well, his old patient never fails to meet him on the right day and at the correct hour, just as accurately as though all Dalmatians were born with chronometers in their mouths. He never mistakes one day for another and never goes on either day at the wrong hour. As Beach drives in, the dog meets him a little way out, follows him through his round, sits or stands by him, watches him devotedly, attends him homeward a certain distance, and then leaves him. Nobody can call him off, not even his master. By the way, if Beach comes to town by some unusual road, and so misses the dog, the latter immediately sets up a persistent search for him, going in succession to every one of his haunts, and among them to my quarters. How he has learned that Beach and I have some relation to each other, I don't know; but he has learned it perfectly, and is just as mindful of it as either of us.

Once I undertook, just for the curiosity of the thing, to detain him in my office. I put my arms around him and held on with all my strength. The result was that after a violent tussle I found myself on the floor, and the big brute of like lightning after his dear Beach. Anybody else would have been badly bitten. He only spared me out of consideration for my obvious relations and my supposed intimacy with his benefactor.

Now, the beast's gratitude is perhaps nothing remarkable; a great many dogs show affection and remembrance of kindness. But how upon earth does this Dalmatian know the day of the week and the time of day?—Atlantic Monthly.

DOGS THAT EAT FISH ONLY.

PHILADELPHIA, Pa., Nov. 25, 1877.

EDITOR FOREST AND STREAM:

While spending a few weeks on the shore of the Bay of Fundy, in Nova Scotia, in 1874, I learned a novel method of catching codfish, which was practiced by some farmers in that vicinity. At the time of low water, the farmer walks out on the dry flats and drives many stakes in the ground, to which he ties short lines, with hooks and bait. He then goes home to his accustomed duties. Soon the great tide rises, and covers the flats with forty or fifty feet of water. The adventurous fish, following the waters for forage and frolic, take the baited hooks, and then settle down to quiet life." When the waters recede the fish are left high and dry, when the farmer, with his wheelbarrow, collects them and baits the hooks again. In this manner he obtains his supply of fish for the winter without much labor and loss of time, and without much sport. Many of these farmers live almost wholly on fish diet, and even their dogs know not the taste of meat. On one occasion, I, in company with several friends, stopped at the hospitable mansion of Mr. Bartow, a farmer, who lives on Cape D'Or. As we drove from Parrsboro on that day, a distance of more than thirty miles, we carried, as a portion of our lunch, a leg of mutton. When Mr. Bartow's dog came up wagging his tail in friendly style, so characteristic of true welcome, we offered to him what remained of the leg of mutton. To our surprise and Mr. Bartow's amusement, the dog, after smelling the meat, turned away in disgust. Mr. Bartow, in explaining the defective appreciation of our favor by the dog stated that he was not accustomed to eat meat, as they seldom had it on their own table, living almost exclusively on fish diet. He said, "Try the dog with a piece of salt codfish after supper and he will not refuse it." J. W.





A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INDOOR AND OUT-DOOR RECREATION OF MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

No. 111 (old No. 103) FULTON STREET, NEW YORK.  
[POST OFFICE BOX 2552.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, DECEMBER 6, 1877.

To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER IS authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

NO MORE YELLOW FEVER IN FLORIDA.—Jacksonville, Fla., Dec. 1.—Thermometer 29 degrees. Ice two mornings. Disease ended. Health proclaimed over the land. AL FRESCO.

BLOOMING GROVE PARK ASSOCIATION RECEPTION.—A reception and ball will be given by the Blooming Grove Park Association to the founder and former President, Mr. Fayette S. Giles, at the Hoffman House, New York, Tuesday evening, Jan. 8, 1878. The Floor Committee are: Dr. E. Bradley, Dudley Field, John Avery, Geo. H. Glenney, Hamilton Busbey, Joseph Doré, Geo. A. Reed and J. W. B. Hughes. Reception Committee: John Avery, Dudley Field, Ed. Bradley, Geo. H. Glenney, Sanders D. Bruce, Hamilton Busbey, Chas. Hallock, E. A. Buck, Joseph Doré, A. H. Wellington, E. R. Wilbur, T. W. B. Hughes, C. H. Read, Simon Sterne, P. M. Wilson, M. B. Browne, Geo. S. Greene. Tickets can be obtained of the following gentlemen: Dr. E. Bradley, Hoffman House; Dr. Geo. H. Glenney, 45 W. 31st; Chas. Hallock, 287 Gates Ave., Brooklyn, and of members.

AUCTION SALE OF ANGLING AND SPORTING WORKS.—The Messrs. Leavitt will sell on Wednesday and Thursday evening, Dec. 5th and 6th, at Clinton Hall, a remarkable collection of angling and sporting works. Not only are all the modern writers on fishing topics to be found, but there are rare copies of the oldest writers. Among them we may mention Blome on Hawking, Fowling, Fishing, of 1686; Oppian's Catalogue of Fishes (very scarce), 1722; a superb Scrope, with lovely prints, 1842; and most notable of all, a Belloni, *De Aquatilibus*, of 1553. This rare old copy formerly belonged to William Penn, and bears his autograph, with notes of an early date. The whole field of natural history and of sporting is represented at this sale, and amateurs should not miss the opportunity.

—Messrs. Tiffany & Co., who always produce everything with the most exquisite taste, have just issued a pretty little brochure, which is suggestive of "What shall we buy for Christmas and New Year's?" In this dainty book may be found the whole catalogue of the many beautiful things exposed for sale, by Messrs. Tiffany & Co., at their extensive establishment on Union Square. Will you purchase a gorgeous diamond, the rival of the Koh-i-noor? Tiffany & Co. will sell it you. Do you want a simple napkin ring? at Tiffany's you will find it. Somewhat curiously inclined (from the pages of their pretty book) we make this alphabetical index: You can buy, Amethysts, Bon-bon boxes, Candlesticks, Diamonds,

Emeralds, Fans, Gems, Hymnals, Ivory combs, Jet ornaments, Knives, Liquor flasks, Marine glasses, Nail boxes, Onyx jewelry, Pearls, Quisities, Rubies, Silver sugar bowls, Teapots, Urns, Vinaigrettes, Watches, X'tra fine plated sets, Yacht prizes, with zeal on the part of the most attentive employees in the country, who are desirous of pleasing all tastes and purses.

GERMAN SPORTING LITERATURE.

WE beg to announce to our readers, especially our numerous German friends, that Mr. Fr. von Ivernois, so well and favorably known to them as the editor of the German sporting paper, the *Waldmann*, has purchased the controlling interest in the *Deutschen Jagdzeitung*, and has assumed its editorship.

The first two numbers of the *Deutschen Jagdzeitung*, an illustrated journal devoted to the sports of the flood and field, are now before us. Our *confreres*, who is not only a sportsman of rare merit, combines with the soundest practical knowledge a positive amount of scientific acquirements, which enables him to discuss, *a fond*, questions of Natural History. The illustrations in the *Jagdzeitung* have that peculiar excellence, with faithfulness as to details, which only German artists can execute.

We believe that among our German citizens throughout the United States Mr. Von Ivernois's *Deutsche Jagdzeitung* will have a wide circulation. In its well written pages will be found many admirable records of hunting; and it must be pleasant for its readers to compare thus intelligibly the hunting events of their Fatherland with similar scenes in the country of their adoption.

To Herr Von Ivernois we are ourselves indebted, not only for a great deal of sound information, but for many acts of courtesy. The *Jagdzeitung* is published in Ellenburg, Prussia.

REMINISCENCES OF THE CINCINNATI ANGLER'S CLUB.

PLEASANT is it to recall the history of a famous club which was formed in Cincinnati as long ago as 1820, and was called the Cincinnati Angler's Club. Eighteen hundred and twenty-nine! Then John Quincy Adams was president. Sometimes, in looking back almost half a century, it is necessary to get at some fixed historical date in order to appreciate the time long since past. Now, just fourteen years before this club originated, Waterloo had been fought and Europe was still feeling the effects of this mortal shock. Men were hale and hearty then who, as members of the Cincinnati Angling Club, had fought with Old Hickory at New Orleans.

It was Lewis Howell, an excellent angler, a good merchant and an honest man, who was the first president. Let us look over the names of the honorary members. We find in the list, Gov. McArthur, of Ohio, Hon. James Hall, the Hon. M. Bibb, General Leslie Combs (still alive, and grandfather of Mr. Bruce, of the *Turf, Field and Farm*), and grand old Daniel Webster. Here is a letter of Mr. Webster's, preserved in the archives of the club:

BOSTON, October 3, 1851.

Dear Sir—I had the pleasure to receive your letter of the 27th of August, transmitting the official certificate of my membership in the "Cincinnati Angling Club." I pray you, my dear sir, to present to the members my thanks for the honor of this admission among their number. If I should ever accomplish a purpose long entertained of visiting Ohio, it will give me pleasure to try the quality of their sports. Meanwhile, should any Cincinnati "brother of the rod" visit these ripples of the sun, he would find glad companions for a day's exercise among the granite brooks of New England, or on the bosom of its greatest boundary. With many thanks for your personal civility and kindness, I am, dear sir, your obedient servant,

DANIEL WEBSTER.

Of course, as fishing and hospitality go hand in hand, and seeing much water produces great hunger and unquenchable thirst, a grand dinner had to be given under the auspices of the Cincinnati Angler's Club in 1830, on the occasion of its anniversary. If the great constitutional expounder had gone to that dinner undoubtedly he would have fed well, and more than one bottle of rare old Madeira would have fallen to his share. It was Mr. Benjamin Drake, an invited guest, then publisher of the *Cincinnati Chronicle*, who made the speech, and a famous discourse it was, and "Honest Old Izaak Walton" was spoken of with reverence. This association of gentlemen, held together by those pleasant bonds which always unite anglers, had, in 1837, another notable event. Fishing and feasting were in order, and the junketing took place at White Water, some twenty miles from the City of Cincinnati. Three hundred and fifty-three bass and salmon trout were captured. Certainly the dinner was a good one, for we learn that the ichthyological *piece de resistance* was a noble bass captured by the president of the club.

It is an original member of the club who sends us various cuttings from contemporaneous Cincinnati journals telling us the story of this good old club, and from these sparse data we have written. Every now and then, amid the accounts of the fishing and jollity, there appears this paragraph—alas! too often repeated: "This was said, or done, by our late lamented fellow member, whose death occurred some years ago;" and so it goes, records of life and death mingled together. As with cheerful and sad feelings we read then the story of this club, we have at least the satisfaction of knowing that, for a brief period in life, these brave old brethren of the rod had a good time of it. It is, then, with pleasure that we give the records of a good old club, whose memory, we trust, will not pass away.

A GAME DINNER.—They had a famous banquet in Chicago the other day, the savory odor whereof was sniffed as far East as the New York *World* office, and its factories being agreeably tickled that journal is moved to publish the bill of fare:

The excellent Mr. John B. Drake, proprietor of the Grand Pacific Hotel at Chicago, perhaps better known before the great fire to travelers as the manager of the Tremont House, has for the past twenty-two years given an annual "game dinner," which has grown from a supper for a small party of friends up to a banquet of 500 covers, with guests present from every part of the country. The position of Chicago on the prairies and within easy reach alike of the seaboard and the great plains, gives her gastronomes exceptional advantages, since she can command at once the oysters of New Jersey and New York, the ducks of Maryland, the prairie chickens and wild turkeys of Illinois—Judge Caton has, we believe, succeeded in domesticating these birds—and the venison of the Rocky Mountains. Here is the *menu* of the last game dinner, given a few days ago, without the vegetables, salads, pastry and desert, as an illustration of the resources of this country in the way of fish and game:

	Oysters in shell.		
	SOUP.	Bouillon.	
Game.	FISH.	Broiled whitefish.	
Baked red snapper.	BOILED.	Ham of black bear.	
Leg of mountain sheep.	Buffalo tongue.	Wild turkey.	
	ROAST.		
Saddle of antelope.	Woodchuck.	Loin of buffalo.	
Coon.	Wild geese.	Canvas back duck.	
Prairie chicken.	Green-winged teal.	Redhead duck.	
Black bear.	Blue-winged teal.	Spotted grouse.	
Ruffed grouse.	Blue-billed widgeon.	Wild turkey.	
	Opossum.	Leg of elk.	
	Saddle of black-tail deer.		
Jack snipe.	Quail.	Fox Squirrel.	
Gray squirrel.	Red bird.	Partridge.	
Plover.	Sand snipe.	Red squirrel.	
	ENTREE.		
	Squirrel, saute, port wine sauce.		
Buffalo steak, with jelly.	Stewed terrapin, en sautois.	Vani-on pie, hunter style.	
	Fricassee of rabbit, aux champignons.		
Escaloped oysters.	Salmi of game, with olives.	Wild pigeon compote.	
	COLD ORNAMENTAL DISHES.		
Wild turkey, en nid.	Roast hare on socle.		
Quail in plumage.	Prairie chicken, au naturel.		
Boned partridge in feather.	Duck, truffe on socle.		
Fox squirrel.	Blackbird in plumage.		
Galantine of grouse.	Snipe in marsh.		
	Stuffed coon, au naturel.		

SUSTAIN ESTABLISHED SPORTING PAPERS.—There are now in the United States five sporting journals which have been in existence four years and upward, and may therefore be reasonably considered as established and permanent. They are recognized as the representatives of the especial interests which they severally espouse, and as authority in all matters pertaining to them. By push and pluck and self-denial, by study, acquisition and experience, by much outlay of money, by inculcating out-door tastes and cultivating patronage, by personal intercourse and familiar correspondence with leading intelligences in all the States and Provinces, they have succeeded in securing the confidence of their constituents and the public, and placing themselves upon the firm basis which they now occupy. If there is any specialty in the field of sport, or physics, or natural history, that some one of these journals does not occupy, we are too blind to discover it. If there is any field of occupation that some one of these is not qualified to fill, we fail to see it. If there is one intellect so brilliant, or one mind and body so versed and habituated by travel and familiar converse with natural and physical objects, as to be able to eclipse the luminaries that now shed their light over the sporting world, it has not yet appeared. The star in the East certainly has not risen.

The field of journalism is precarious, and especially of sporting journalism, which bears the same relation to our business economy that luxuries do to necessities. The demand ceases when the want is supplied. If we estimate the number of sportsmen's clubs in the country, and the numbers of members thereof; if we calculate the numbers of those persons who merely travel for recreation, and add the very considerable class whose tastes are no more than æsthetic, we may approximately reach the extent of the constituency upon which our present established papers have to depend for support. We can prove that it is scarcely large enough to yield each paper a livelihood. A test of ten years of joint experience long since convinced the proprietors of the ROD AND GUN and the FOREST AND STREAM that the field was not wide enough for them both. One representative journal of their peculiar class at the West and one at the East we felt ought to supply all wants in their direction; so they united.

But other minds more perspicacious think differently, it seems. Within a month or less than six (!) sporting journals have been started as bidders for a division of the patronage bestowed upon the old papers. We have no particular objection to their starting, nor to their learning the lesson which experience has taught wiser men before them. The fittest will certainly survive. But unless there is positive assurance or reason to believe that any of the new aspirants will fill the bill better than the old papers, then it is impolitic for sportsmen to take from the old to give to the new, for it makes the first poorer and the other it does not enrich. Does the public actually have more faith in the glittering promises of the new ventures than it does in the tried performances of fixed facts? If so, how many years is it willing to wait for the proof that their judgment is sound and their confidence correctly bestowed? Journals are not established in a day, and success is as rare as gold nuggets in a placer.

GEOGRAPHICAL REDISCOVERIES.

SOME time ago when Chief-Justice Daly, President of the American Geographical Society, called attention to the fact that the Lake Ukerewe (Victoria N'yanza), of Speke, and the Mwanu Nizi (Albert N'yanza), of Baker, were simply rediscoversies, the dictum of the accomplished American geographer was received with general incredulity. In a map, published in Harper's Weekly, of Nov. 17, is given an exact copy of Ptolemy's Map of the World, which was first executed some seventeen hundred years ago. In this Ptolemaic map the course of the Nile is distinctly laid down, and its source and origin traced. The feeders of the river, due to mountains, are clearly defined, and one is amazed at how really near to the truth were the topographical delineators of those early times. The two large lakes, the grand reservoirs of the Father of Rivers, are by no means out of position. Paul du Chaillu, in a letter in Harper's Weekly, calls attention to this very interesting and truthful example of early cartography. Leaving Africa aside for the moment, to return to it later, we find the details of Europe are in some respects fairly accurate. England, however (Albion insula), is very much too long, pointing too far north, and having an arm of land reaching out towards the Norwegian coast. Hibernia is about three times as far from England as it should be. One curious comment in the civilization of 1,700 years ago and to-day is that, while in Northern Africa innumerable geographical names are given to mountains, rivers and towns, in England all is a blank. Eastward from Arabia matters are more confused, and there is a huge island, described as Taprobana insula, which is not readily distinguishable, though Malacca and Cochinchina are fairly outlined. In the Western Atlantic, the Canary and other islands are indicated. Returning to Africa again, and referring to a capital map printed in the New York Herald of the 14th of November, where the wonderful feats of Stanley are recorded, a curious opportunity is afforded of comparing the Ptolemaic map and that of today, in regard to the course of the Congo or Lubala. In the Herald map, north of the Congo, there is a river indicated, but which has no name. In the old map of Ptolemy the Congo is made to have various affluents. Perhaps future discoveries will assimilate more to the ancient course given to the Congo. The source of the Congo on Ptolemy's map seems to be quite identical with that discovered by the intrepid Stanley.

What does all this teach us? That the learning of the ancients was immense. That man's power of observation was as great then as it is now, and that no end of stories, which we have believed to be mythical, had a positive foundation in truth. Every day we find that Ptolemy was an accurate observer. If the lore of the ancients could have only come down to us, unclouded by the absurdities of the darker ages, our clues to facts would have been much more readily acquired, and the time wasted in disentangling historical and geographical subjects could have been applied to other purposes. We honestly believe that most of all the former strange impossibilities of natural history were born rather from the fifth to the fifteenth century than before them. The rediscovery of the courses of these great African rivers, of course, in no way diminishes a tittle from the credit of modern explorers, of whom the greatest undoubtedly is Henry M. Stanley.

HOW TO CLEAN CHOKED WATER PIPES.—A NEW USE FOR EELS.—The following experiment is so novel and so authentic that we wish to give it full prominence. It beats all other fish stories out and out:

PHILADELPHIA, PA., Nov. 21, 1877.

EDITOR FOREST AND STREAM:

The publication of the following device for removing obstructions in water pipes may prove to be of service to some of your readers who reside in the country:

On one occasion, a two-inch lead pipe, about three hundred feet long, that supplied water to the garden, became closed with mud. I applied a force pump several times, which forced a passage for a small amount of water, but as the pipe had only a fall of 2 1/2 feet, the water ceased to flow soon after the pump was removed. I was sorely perplexed, and endeavored to devise a plan to dislodge the mud. I thought how nice it would be to put through the pipe a strong cord, twice as long as the pipe. I would then tie a bunch of rags to the middle of the cord—a small bunch at first as an explorer. I would take hold of one end, and put a man at the other end. We would then pull the bunch of rags through, and open a small passage; then, by increasing their size, and pulling them back and forth, we would thoroughly clean the pipe. I cleaned the pipe thus, many times in imagination, but the puzzle was how to get the cord through. I finally concluded to try whether an eel could be induced to perform the operation. So I caught a small creature of the slimy persuasion, and punched a hole in his tail, through which I put a small linen twine, and tied fast. Without much solicitation it entered the pipe and proceeded on its errand in charming style. After taking in about ten feet of the string it stopped, and I then began to fear that it might conclude to take up its abode there; so I jerked the string and the pain caused it to proceed. Whenever it stopped a gentle jerk caused it to proceed on its journey. I stationed a man at the lower end of the pipe to report as soon as the eel had completed its subterranean peregrination. In less than half an hour the eel made its appearance, and by means of the small string, a strong cord was pulled through and the pipe was speedily and effectually cleaned. J. W.

[This most ingenious device on the part of our correspondent, we are afraid, is fraught with danger; not so much to the eel as to himself. What will the fiend of the bath room, that demon who glows over freezes and thaws, commonly known as the plumber, do now? Certainly the man and his helper will find their occupations gone, and, reduced to poverty, or at least forced to gain their livelihood in a legitimate way, they will go for our correspondent with murderous intent. Philanthropizing over the matter of clearing stoppages in water-

pipes, by means of eels, the demand for these slippery creatures will be so increased that the eel will be priceless. Here is, then, the dilemma. Anyhow as an ichthyological solution of a mechanical problem, all of us, save the plumber, must feel eternal gratitude to our clever correspondent J. W.—Ed.]

GAME PROTECTION.

American Trespassers in Canada.

MONTREAL, Nov. 17, 1877.

EDITOR FOREST AND STREAM:

You call attention in your issue of this week to a too rigid interpretation of our Canadian laws and an apparent want of courtesy on the part of our Canadian officials toward two American gentlemen shooting on the St. Lawrence. One of these gentlemen, Mr. Wiltzie, is, you state, the President of the Hudson River Association for the Protection of Fish and Game. Now, as Secretary to a Canadian Fish and Game Protection Club, I am in a position to say that we have grievances to complain of on the part of Americans who call themselves sportsmen, but whom I am certain Mr. Wiltzie from his position would not acknowledge as either sportsmen or gentlemen. You, Mr. Editor, have seen enough of Canada and Canadians to know that the true sportsman will always meet with a warm welcome among them; but we too are troubled with our pot-hunters, and, I am sorry to say, that the worst specimens of them come from south of 45 deg., and this, perhaps, causes an apparent want of respect, even to a legitimate sportsman. Having exhausted, or nearly so, their game at home; they come to Canada and destroy ours in season and out of season, and by every means, legitimate and illegitimate. Every season since I have been Secretary to our club I have had several complaints of so-called American sportsmen shooting game for the market out of season. To mention but one: Last year I had information of a party calling themselves American sportsmen that shot on the Ottawa, during the close season, fifty-four deer. I am happy to say these gentlemen were scarcely treated in Canada as they expected, but still a good deal better than they deserved, for our officials merely kept their guns and game as souvenirs of their visit. It is visitors like those which cause us to look with suspicion even upon gentlemen whom we would otherwise be glad to welcome among us. And it is not our game alone that is being destroyed in this manner. As you are aware from what I have previously written to FOREST AND STREAM, we have, a short distance North of Montreal, very fine trout fishing at present. A few weeks ago I had authentic information sent me that during the month of July last, and in ten days, a couple of fishermen from beyond the lines took sixteen hundredweight of speckled trout from one small lake about thirty miles from Montreal, packed them in ice, and sent them to the American market. It is unnecessary for me to comment upon such conduct. We have, I am sorry to say, offenders enough of our own against the fish and game laws without wishing to import any. In conclusion, I shall only remark that such as Mr. Wiltzie will always be sure of a welcome from all true sportsmen in Canada, and he may rest assured that our regulations are not ofensive but defensive. I am very truly yours,

A. N. SHEWAN, Secretary.

The Rifle.

BOSTON, Nov. 27, 1877.—The second of the new series of contests was shot at Walnut Hill yesterday by members of the Massachusetts Rifle Association. The distance was 1,000 yards, 45 rounds, two sighting shots, and the score must exceed 195 to win the prize of \$25 in plate or a medal. The highest possible score is 225. Captain W. H. Jackson made 205 and was again the winner and chose a medal. The following was the record:

Table with 2 columns: Name and Score. Includes W H Jackson (205), A H Hebbard (200), N Washburn (189), H Trivet (185), Salem Wilder (182), A Hebbard (179), Willian Poland (178).

The shooting of Capt Jackson is wonderful for this time of the year. Also A. H. Hebbard, who was not six points behind the captain at the last match, was five at this. They both use the Remington rifle, 2 7/16ths shell, 103 grains of Hazard's FG powder, Hepburn bullet.

CREEDMOOR, Nov. 29.—Thanksgiving Day the weather was not cold or rainy enough to interfere materially with the shooting, which continued throughout the day. The Irish-American Rifle Club shot for the Sharps military rifle at 200 and 500 yards, ten shots at each range. Sergt. N. D. Ward won on a score of 74. Capt. J. Kerr, who scored 41 at 200 yards, dropped to 27 at 500, and came in second, with a total of 63; Lieut. P. Farrell, 54. Corp. W. T. Merriam, of Company C, Twenty-third Regiment, won the Charter Medal, and Private E. B. Bragg, of the same company, won the Freid Medal. Company F, Twenty-second Regiment, shot the first competition for a challenge cup, presented by the company officers, at 200 and 500 yards, seven shots at each range. The winner was Private J. Ballin, who scored 50 points, the other scores being as follows: Lieut. L. Backer, 44; Sergt. J. W. Moore, 40; F. J. Fullgraf, 40; Sergt. M. E. Bunton, 30; Capt. H. Hennberger, 30; E. W. Dunton, 28. The following scores were made in a match for the championship of the Fifth Brigade, shot at 200 and 500 yards, possible 50 points:

Table with 2 columns: Co. and Name/Score. Includes Co. A, Fourteenth Regiment (Louts Smith 40, Corp Cory 40, J Moore 38, Corp Henwood 34, T Arkell 32, W C Noble 27) and Co. C, Thirteenth Regiment (E R Dyevan 56, T H Glass 54, G B Reed 52, G H Price 52, W Peters 45, Serge P A Miller 45).

Drummer Luke Flood, of the Thirteenth, won the Briggs' Medal with 36 points. The Washington Grays shot three matches. The first was for four silver trophies, ranging in value from \$10 to \$25. The second, or "champion's match," was for a \$100 medal, and two silver trophies valued at \$20 and \$10, respectively. The "consolation match" was the

last. The three prizes were won by Corp. C. Holsten, who scored 25 out of 35 at 100 yards; A. Moore, 23, and A. W. Cruikshank, 19. The scores in the two first matches were as follows:

Table with 2 columns: Name and Score. Includes Washington Grays—Troop Match—200 and 300 yards—Possible 70, and Washington Grays—Champion Match—100, 200 and 300 yards—Possible 75.

The Scottish-American Rifle Club had their regular Thanksgiving Day matches. There were thirty prizes, consisting of a silver watch, clothing, provisions, etc. As only eleven men competed, some will get two or more prizes. The shooting was at 200 yards, twenty shots, and the scores were as follows:

Table with 2 columns: Name and Score. Includes Capt W Lud-ay (76), W Robertson (74), Lieut J Shind (71), Capt W G Ross (69), Lieut D E Vannett (66).

W. Robertson, who has made the best aggregate shooting during the season, received a silver watch. The Seventy-first Regiment shot for the first competition for the gold badge presented by Major McAlpin. The range was 200 yards, seven shots. A protest was entered on account of an alleged irregularity, but the scores go on record as follows:

Table with 2 columns: Name and Score. Includes Sergt W F Edmundston (30), A S Beebe (29), W Robertson (28), G Wilson (28), W Lindsay (28), A H Gerhart (27), W C Clark (27), J M Young (26), G Williams (26).

CONLIN'S GALLERY.—Thanksgiving Day and evening were celebrated by the first competition for the "Marksmen's Badges," which are three in number, offered on the following terms: First, badge for best score; second, for best score three points; and the third, five points below the first. To be won three times to become the property of the winner. Conditions: Shooting to be done with rifle, off hand, at 200 and 500 yards, targets reduced for the range, seven shots at each target, Creedmoor rules to govern. Open to all comers. Following was the final result:

Table with 3 columns: Name, 200 yds., 500 yds., Total. Includes F H Holton (300), Fred Keeler (28), M L Riggs (28), L V Stone (29), N B Thurston (30), N O Bonnell (30), F H Alder (29), S H Teackle (31), N E Long (27), A J Howlett (31).

And a large number of others.

CONLIN'S GALLERY.—Second competition, Dec. 3, 1877:

Table with 3 columns: Name, 200 yds., 300 yds., Total. Includes A J Howlett (300), Wilson McDonald (30), Fred Alder (32), Dr S Dudley (31), F H Holton (31), N B Thurston (31), M B Enchel (31), T H Lord (37), E M Roberts (30), N O Bonnell (29), A W Sibber (29), J H Teackle (31), C A John (24), P J Olinian (28), Wm H Dunlap (28).

The third competition will be held at this gallery on Monday evening, Dec. 10.

YORKVILLE RIFLE CLUB.—The following are those who made an average of inches or more at Washington Park on Thanksgiving Day, at the second competition for the club champion gold badge of the Yorkville Rifle Club, Mr. J. J. Reilly carried it off on a record of 56, viz.:

Table with 2 columns: Name and Score. Includes J J Reilly (56), J L Paulding (54), A Smart, 53.

SOUTH CAROLINA.—Charleston, Nov. 30.—Thanksgiving Day was more generally observed and enjoyed here than usual. Almost all of the city clubs were out at their ranges, but the wind was too high for any good shooting. I chose the score of one of our crack artillery companies, which I think is very good, considering the fact that but very few of these men had ever fired a shotted gun before. The target is ten feet high, ten feet long; distance, 400 yards. A centre shot counted 5, the inner ring 4, second ring 3, third ring 2, outer ring 1. One shot was allowed each man. There were only five misses in the thirty-seven shots. The points made by Sergt. Pollin's detachment (Squad 1) were as follows:

Table with 2 columns: Name and Score. Includes Edings (4), Mullins (4), Pollin (4), Capt Smyth (5), Lidsay (5).

The points made by Sergt. Quimby's detachment (Squad 4) were as follows:

Table with 2 columns: Name and Score. Includes Alexander (3), Yates (3), Waters (3), Lieut Morris (2), Eason (2).

The points made by Sergt. Chace's detachment (Squad 2) were as follows:

Table with 2 columns: Name and Score. Includes Dawson (3), Chase (3), Abrahams (1), Melndoe (4).

The points made by Sergt. De Saussure's detachment (Squad 3) were as follows:

Table with 2 columns: Name and Score. Includes Ferguson (3), Straiton (2), Mease (1), Arnan (3), Bolger (5).

### WORSE THAN MORIBUND ON RIFLE MATTERS.

THE recent attack of the *Army and Navy Journal*, upon the existence of the National Rifle Association, was put squarely upon the ground of the passage of a certain resolution by the directors of that body, although in point of fact the obnoxious resolution, so far from having been passed, was tabled. The natural comment excited by this blunder, instead of eliciting an acknowledgment of stupidity from the *Army and Navy Journal*, only produced a denial of the right of the N. R. A. to use the title of the National Rifle Association of America; a still more ludicrous mistake, as every rifleman in the land knew to the contrary.

Under the spur of the moment, dimly conscious how really ignorant it was, the *Journal* has at last arisen to explain. It makes this movement by dodging the whole subject. The assertion was made by us that its information was simply incorrect. Its answer is that it is useless to baffle the issue by questions about "the exact wording of particular resolutions," compelling this disingenuous way of putting the matter with a thrust at the *FOREST AND STREAM* AND *ROD AND GUN* and the *Turf, Field and Farm* as "moribund sporting journals." Not satisfied with this, it goes back to its old position and asserts "that a contest with the British N. R. A. is worthy of the dignity of our American National Rifle Association, but when the N. R. A. enters into competitions with local clubs (alloys teams from Ireland, Scotland, Canada or Australia, to shoot for the Centennial trophy) in preference to accepting honorable contests with a dignified and representative body (the N. R. A. of Great Britain), it abandons its national standing and sinks by its own act to a lower position."

Moribund though we may be in the opinion of the *Army and Navy Journal*, we still retain some glimmerings of our pristine faculties. In spite of the general decay which has fallen on us, our memory still acts sufficiently to recall a period not very remote, when the *Army and Navy Journal* expressed very different sentiments from these. This was on March 18, 1876, when under the caption of "International Match," the journal asserted in so many words that the position it now occupied was "untenable and illogical." That when the N. R. A. of Great Britain declared that "any team organized by them must be a team representing the United Kingdom, and not one or more of its parts; and must be the sole team sent from these islands to compete for the championship of the world," they even assumed "an illogical position." In this article it quotes at length, and with approval, the letter of the N. R. A. to Sir Henry Halford, of March 13, 1876, including that part of it which contributes the main portion of the recent resolutions, for the passage of which it has since so severely criticised them. Also on the account of "The International contest" published in the *Army and Navy Journal*, of Sept. 16, 1876, it states that "The American Centennial trophy, etc., is to be held subject to future contests, and as the contests are to be held in the country of the team winning it, we shall next year witness a gathering of all the national teams who choose to contest for it."

We must confess ourselves unable to understand why it is, that a letter which was warmly approved, when it was written as a proper expression of the views of American riflemen, should not meet with the same approval when quoted in a resolution; and why, what was in 1876 "a gathering of national teams" for an international trophy should have since become "a scrub race among local clubs."

Surely, if the original course taken in this matter by the N. R. A. of America was approved by the *Journal*, consistency required adherence to it, if it was not possible for that paper to follow their example. The *Journal* makes another exhibition of its entire want of acquaintance with rifle topics, in objecting to the system of selecting an American team by open competition. So far the benighted riflemen of all countries have followed this plan in selecting their best shots, and compelled candidates to submit to these very "vexatious restrictions" which disturb the peace of mind of our military contemporary. We dismiss for the present any further discussions on this subject with the *Army and Navy Journal*.

The casual sergeant, who may from time to time consult the *Army and Navy Journal*, in order to discover where his regiment may be posted, has full liberty to be enlightened on rifle matters by such ineane twaddle as this paper produces, which, with no possible circulation, has long been known as the type of what was ineffably dull and tiresome.

SIR HENRY HALFORD'S LETTER.—In our last issue we printed a letter of Sir Henry Halford's, taken from the *Volunteer Service Gazette*. Want of space prevented our commenting, then, on the letter as fully as we would have desired. We think the excellent captain of the English team made a mistake when he stated that the American team had been shooting as a team "since April with its staff of coaches and spotters"—upon whom the men had learned to place the utmost reliance—and in saying that to put a team together "is the work of months." Quite to the contrary, competitions for places commenced July 17, and ended on August 14. The entries included many strangers to Creedmoor, one of whom, Capt. Jackson, of Boston, was selected. Mr. Hepburn had not shot on the range for a year, and Mr. Lamb was a brand-new man. In these competitions the contestants for honorable positions shot very close, and every man for himself. There was then no coach used at all. It was by lot that the riflemen were assigned to the

targets every day. On the 14th of August the team was regularly organized, and selected its spotters and other assistants. The first practice was on the 14th of August, and the team had precisely four practices, to wit: on August 14, 15, 21 and 22; neither more nor less before the arrival of their gallant adversaries. After that both teams shot twice a week, with occasional individual practice. As far as coaches were concerned, Mr. Hepburn, who acted in that capacity during the matches upon one target, had up to that time been shooting upon the reserve. Mr. Coleman, the other coach, has been acting as adjutant. It is *guns, guns, guns*, Sir Henry Halford, which beat you. As long as you put all your faith in the discipline of a team, and but little in the merits of the American rifle, you will be beaten, Sir Henry.

COL. PEEL'S REPORT OF THE INTERNATIONAL MATCH AT CREEDMOOR.—We copy from the *Volunteer Service Gazette* a most interesting communication from the executive officer of the English N. R. A. We consider it an exceedingly thorough analysis of the whole matter. At least there is one good authority in England who thinks that the rifles have something to do in a match. The italics are our own. Col. Peel's rules for team shooting are excellent, and riflemen both at home and abroad should be indebted to Col. Peel for the clearness with which he expresses his views:

12 PAUL MALL (EAST), Oct. 8, 1877.

My Lord—In accordance with your wishes I have committed to paper, for the information of the Council of the N. R. A., a few points that have come under my notice whilst in America with the British Rifle team. In the first place I saw no novelty that I think should be adopted at Wimbledon, with the exception of the telephone, and one or two smaller matters, such as:

1. High scoring-boards (showing over the heads of the crowd).
  2. Dial for wind-gauge.
  3. Shelter tents.
- In all relating to the order of shooting, squadding, and matters of executive detail, the Americans are behind us. They have adopted our rules almost *verbatim*, but are not obliged, perhaps, to carry them out with the exactness and punctuality, the necessity for which has been forced upon us by limited time and unlimited entries. With regard to the result of the international match itself, those of the Americans whose opinions are of most value, appear, I may say almost unanimously, to attribute their success to three causes:

1. To the superiority of their breech-loading rifles and ammunition, and to the care taken in making the most of these advantages.
  2. To some of our men adopting the "prone" position.
  3. To the better organization of the American team.
- They attach relative importance to these three causes in the order given above. I quite agree with them as to the causes, but as to their relative importance I am inclined to reverse the order, thus:
1. Organization.
  2. Position.
  3. Rifles.

In examining them I will, therefore, take them in the latter order. The superiority of the Americans, or rather our inferiority in team organization, is, I think, far greater than they have any idea of, or than anybody else has, not as it were behind the scenes of both teams like myself, can quite appreciate. It is a subject that appears to me to have been quite neglected by our shooting men, who apparently are unable to understand the importance of working in concert. To enter a team composed as ours have always been, against the Americans, is like expecting an undisciplined rabble to hold its own against a body of Regular troops of similar numerical strength. I can scarcely believe that our present race of shooting men—brought up as they have been to trust solely to their own judgment—could ever, as a rule, be induced to abandon their individuality to the extent that is necessary for the formation of a disciplined team.

The Irish and Scotch appear to have picked up in their visits to America some vague notion of what may be done by acting in concert, but to me it is surprising that, having witnessed the American method of team shooting, they should have failed to see the hopelessness of competing with the Americans under present conditions. One of the "Eights," shooting for the Elcho Shield, can no more be considered a team in the American sense, than can a number of horsemen collected haphazard be considered a cavalry regiment. If the council were anxious to introduce team shooting into our country, I should say—"Do not attempt to form teams out of present race of shooting men, but let the Chancellors' Plate be shot for with breech-loading match rifles, and send somebody down to each university to coach the men for a couple of months." This would ensure your getting men of an age and of a temperament which would allow of their being under some sort of discipline—a *sine qua non*. In a separate paper, which I append, I have made a few notes as to how a team should be chosen and put together. They are drawn up almost entirely upon the American model, with some minor changes and additions which I think would be found improvements. Undoubtedly a man in the "prone position"—i. e., on the face—as compared to the "back position," is exposed to a breakdown. That is, a man who generally makes brilliant scores, "on his face," should be suffering from indisposition or nervousness, or be "out of sorts" from any cause, goes to pieces altogether. This does not occur in the case of a man shooting "on his back," who, under similar circumstances, will probably only a drop a point or two, and not throw out his comrades. I must here explain that, in a properly organized team, a breakdown means not only (as with us) a falling off in the individual's score, but the throwing out of gear of the rest of the team. It is noticeable that the three men of our team (all celebrated shots) who fired in the "prone" position, made the three worst scores recorded in either team, while one of the highest scorers on the American side was a man who was so ill that it was a question from round to round whether he would not have to give up shooting. This is a subject upon which (in common with the Americans) I know that I differ with Sir Henry Halford and others of our party, doubtless far better judges than myself, who am unable to approach the subject scientifically. Still, where "doctors disagree," the looker-on, who proverbially "see

most of the game," may perhaps venture to give his opinion *quantum valent*. In discussing this subject we should not be misled by the high scores made at Creedmoor, which mean nothing, and are attributable solely to local circumstances. The marking, scoring, etc., which are carried on most strictly and fairly, are precisely the same as our own, and yet a man shooting individually makes, or ought to make, some ten points more than his Wimbledon average in 45 rounds at Creedmoor. The surroundings of the range are green, the huts sheltered, the climatic and atmospheric influences less variable, and there is generally, as compared with Wimbledon, scarcely any "mirage;" whilst from the northern aspect of the butts the sun is never in the shooter's eye. In short, Creedmoor is a perfect shooting gallery. The Americans state that with the breech-loader they can use a heavier charge of gunpowder than can be done with the muzzle-loader. They lay great stress upon their powder burning slower than ours. They claim that by these means they obtain a lower trajectory and that in other respects their bullets are less affected by external influences. In connection with this subject I was assured by a member of the American team that visited Dollymount and Wimbledon in 1875—an exceptionally wet year—that they found it necessary to make little or no change in the elevation of their rifles, from what they used at home—not more than what one day's practice sufficed to rectify. This was certainly not the case with our rifles at Creedmoor. The heavy charge necessitates "cleaning out" after every round, but they claim that the weapon they use, being in itself a practical one, and suitable for military or sporting purposes, they may consider themselves entitled, for match purposes, to get the best shooting out of it they can. The "cleaning out" varies according to fancy, but the method most frequently adopted consists of four distinct processes:

1. A water brush and water are used.
2. A dry rag or piece of lint.
3. An oiled rag.
4. A piece of wash leather.

They load their cartridges on the ground, inserting the bullet, which has a lubricated paper wrapper, but no wad, very slightly (1-16th of an inch only) into the shell. Old shells are considered the best until they get out of shape. Some men prefer, for match purposes, those that have been used twice, others three; and some, I understand, use the same shell over and over again.

All this is, of course, unpractical, but they contend that it is not more so than the use of the sights employed in all match shooting, while the rifle is "the gun of the period," and fit to be taken from the ranges to the battle-field or the prairies.

I watched their shooting on many occasions very narrowly, and observed that when one man of their Team had once got well on to the bull's-eye, a change of sighting or elevation was comparatively seldom made by the others at that distance. On the other hand, each man of our party, as he came up to fire each round, would be fumbling with his sights, screwing them up and down, and apparently making abstruse mathematical calculations.

This looked, to me, like a confirmation of the American claim to a lower trajectory than ours.

I should add that they have several Metford and Rigby rifles at Creedmoor, and have tried them, in every way, against breech-loaders—more exhaustively, I fancy, than we have done.

It would be useless to enter into the question of which they consider the better of the two, but I am bound to say that the balance of the evidence appears to me to be in favor of the breech-loader, when properly handled, being slightly superior to either.

It should be mentioned that, with all their cleaning out, the Americans always got through their shooting, both in practice and in the match, at every distance in something like two-thirds of the time taken by our men, who, themselves, shot much quicker than at Wimbledon. This was in a great measure, no doubt, owing to superior system and discipline, but something must also be credited to the breech-loader. As individual marksmen there is little, if anything, to choose between the representatives of the two nations. In the *Spirit of the Times* match for individual shooting—which took place on the Tuesday following the great match, and in weather more calculated to bring out individual merit—our three highest scorers were beaten, it is true, by fourteen Americans, but on the other hand, taking the members only of the two Eights of the previous week, the British made a slightly better total. This result goes to prove that the best individual shot is not, necessarily, the best man in a team, and vice versa; but I fail to see that, as has been claimed by some, it denotes any decided superiority in the British over the Americans, even in individual shooting. As it would be useless to point out all our faults without suggesting some remedy, I shall endeavor to deduce the lessons which, to my mind, all concerned should learn from the experience gained at Creedmoor. To the "small-bore men," I would say: "Get a good 'back position,' if you have not already adopted one; treat your rifle scientifically, and try and get the best possible shooting out of it; above all, if team shooting is to be carried on, study system and discipline, which are synonymous with organization." To the "gun-makers" I would say: "Do not stop to discuss the merits of your respective muzzle-loaders, but go with the times, and do not rest satisfied till you have produced a practical breech-loading rifle that will beat all the muzzle-loaders and breech-loaders ever yet made. To the Council of the N. R. A. I would say: "Whether you wish to encourage team-shooting or not, hold out every inducement to the production of the best breech-loading rifles; raise the maximum weight of military breech-loaders from 9lb. 4oz. to 10 lb., and let a military breech-loader be the Match rifle of the future, allowing any contrivance that science or ingenuity can invent to get the best shooting out of it for match purposes, without destroying its efficiency as a military weapon. Above all, set your face against the further use of muzzle-loaders, even if proved to be better for much purposes than our present breech-loaders. The former are relics of a bygone age, and the chief obstacle to all improvement in a practical direction. Were this policy pursued, we might look for a revival of the interest formerly taken by the public in match shooting—an interest now confined to the hundred or so who possess muzzle-loading rifles and their immediate friends, and apparently dying out among them." I am unwilling to close this paper without a word of well-merited praise to the members of our team. They did their best, and, according to our standard, they shot splendidly. They showed great pluck, too, throughout an uphill contest, and took their defeat as a defeat should be taken.

If in any of my remarks I may appear to have been hard upon them, it is only because the report of a defeat must necessarily be to a certain extent an adverse criticism. Having been asked for my opinion, I have given it honestly, and I hope not unkindly.

I have the honor to be, my Lord, your Lordship's obedient servant,

C. L. PEEL, Lieut.-Col.  
Executive Officer N. R. A.

To the Earl of Warwicks,  
Chairman of the N. R. A.

RIFLE TEAM ORGANIZATION.

I am decidedly of opinion that the Captain of a Team should not himself shoot. He would find ample occupation in looking after his men, whereas should he shoot, his duties at the firing point must in a great measure be left to a "Coach," who would not carry the same weight. This, however, must depend upon circumstances, and a fixed rule can hardly be laid down. The man selected to act as Captain should possess great tact and firmness, should be devoid of anything like "fussiness," and should have had so much experience that the Team generally would be ready to give cheerful obedience to all his directions. Nobody but the Captain should ever find fault with a member of the Team, or even point out an error. In my opinion there should be but one "Coach" for the whole Team, though it would of course be open to him to call in further advice. The Captain would be, I think, as stated above, better employed in filling the office of Coach than in shooting. The Coach should watch every current of air, every change of atmosphere; he should know every man's shooting and peculiarities, and should keep a register of every man's "target" on all occasions. To him alone it should be given to advise, and if necessary to order a change of sighting or elevation. There should be a spotter at each target. He should be provided with a spotting target, telescope and a differently colored pin for each man of his squad, *e. g.*, red, blue, yellow, green, etc. The spotting targets should be placed so that every man of the team can see them both. The pin corresponding with the list shooter of each squad should be stuck into the spotting target of the squad, in exactly the spot struck, and should remain there till that man fires again. Thus each man's last shot, and every hit made since he last fired would be seen at a glance. The spotting of the spotter must be accepted as the official record of each hit, and no private spotting by or for any member of the team should be allowed. A spotter should not be required to keep a score, or do anything but spot correctly, which will be found ample occupation for one man. It is usual to allow individual shots of note to compete for places in a team; but I should prefer that the choice of the men should be left solely to the Captain, whose powers should be in all respects absolute. I do not think that the best individual shot is necessarily the most valuable man for a team; far from it. To be of use in a team a man must not believe himself, or his opinion, to be infallible, as is not unfrequently the case with shooting men. He must not only be willing to act contrary to his own opinion at times, but he must be capable of knowing when a bad shot is the result of a "bad let off," or other accidental circumstance, and be prepared to say so honestly. Many shooting men think it impossible that they themselves can make a mistake, and imagine that a miss or bad shot must result from some cause over which they have no control. Such men are unfitted for a team, however brilliant their individual shooting may be. Knowing how our present small-bore men have been trained solely for individual shooting, I should prefer to pick a team from untried men, or men who had little or no practice as small-bore shots. The stamp of a man I should select would be one having a clear, light eye, a steady hand, a good digestion, and not knowing the meaning of the word "nervousness." He should be able to devote at least six weeks to practice, be willing to submit to discipline, and to a certain extent be prepared to "go into training;" enough of the latter to keep him in good general health. As it is absolutely necessary that a team should practice together for weeks, all the members must live within easy reach of each other, and of a long-range butt, and be able to give up, say, six hours for three days in each week to practice. The Universities appear to me to be the only localities in this country which at present combine the necessary advantages of a large choice of young men amenable to discipline, with the opportunities for constant practice. Small-bore clubs with permanent ranges might be got up near our large towns if match shooting were to be generally taken up; or if it were to be encouraged in the army, no doubt many first-class teams might be got up at Hythe, Aldershot, or elsewhere. Whatever rifles may be used, the first thing to be done after picking the ten men to compose your team, is to bring all the rifles together in the matter of sighting, so that they shall all have a common zero for elevation and wind, and that the minutes or degrees shall be precisely similar. Their accuracy in these respects should be ascertained on a calm day at 300 yards, and again at 800 yards, to insure the sights being upright, and they should be frequently re-tested during practice. In a word, every rifle should be so exactly the counterpart of the rest that every man might be supposed to be shooting practically the same gun. This is the foundation of the system of team-shooting. The eight men to compose the team should be selected from the ten, as early as possible, by the Captain, and the two reserve men should be prepared to work as though they were chosen in the eight. I assume that no man would be chosen who was not a reliable "holder"—a mere question of eye, nerve and "position."

Three targets should be appropriated to the practice of the team. The team proper should shoot at the two outside ones, the captain squadding them by fours to a target. The two reserve men should shoot at the centre target, each working with one or other of the squads, in such a way as to be able at any time to take the place of any man who may become non-effective—*i. e.*, each reserve man should shoot every day as the duplicate of one of his squad, firing at the same time and getting his coaching precisely as though he were that man. One day as No. 1, next as No. 2, and so on; but he must not disturb the squad, and must fire at the centre target, although his hits must be spotted on the spotting target of his squad. The captain should, either on his own judgment or after consultation, decide, before commencing at each distance, with what elevation and wind allowance the experimental shot is to be fired. This done, the steadiest man in the team, who should always lead one of the squads, should fire the first shot. Should this produce a good bull's-eye, the proper sighting has been found, but should it not be a good shot an alteration must be made by the captain in the sighting before the second man fires, and so on till a good bull's-eye is made. This experimental shooting should only go on at one target, but the proper sighting once arrived at, both squads should take up the shooting without delay. It is evident that, theoretically, one man having made a good bull's-eye, and every man being a steady puller, and the rifles precisely similar, as long as the wind and other external influences remain unchanged, every man should get a bull's-eye at each shot. Therefore, the elevation and wind once correctly obtained, the quicker the shooting and the more shots that can be got on to the target before a change comes the better. To prevent delay, as soon as each man goes down to shoot, his "next man" should kneel close behind and coach him; stop his shooting during a puff of wind; tell him when to pull; shade his sights; and help him in every way. If an unmistakable change of wind occurs, of course the shooting must be stopped, and a fresh arrangement of sights decided upon,

but as a rule it should go on (and the quicker the better) till somebody makes, say, a bad inler, or something worse. It will be the special duty of the "next man" to see that the shooter's sights are rightly set and are upright, etc. This done, he will call out the letter or number of the target (say Letter H), and the shooter will make sure that he is aiming at the proper target, and repeat "Letter H" in a loud tone. Immediately after shooting the shooter will jump up, go to the left about, move to the rear of the squad without waiting for the marking, and commence cleaning out, so that there may be no delay. As his successor goes down, his "next man" will, of course, kneel by his head, and so on. If he had a "had let off," the shooter must declare it at once, without waiting for his shot to be marked, and whether the hit be a good or a bad one, the shot must be disregarded. NO TALKING SHOULD BE ALLOWED, AND NO PERSON PERMITTED WITHIN THE ROPES WHOSE PRESENCE OR POSITION IS DISPENSED WITH. No reporters, no private spotters, no attendants carrying rifles, none of the crowd of loungers we are accustomed to see at the firing points when a small-bore competition is in progress. No body of men can work together satisfactorily "without order, silence and method, which are far more necessary in team shooting than in ordinary competitions. All this simply means discipline, and if I wrote for another hour I could say no more than that word conveys. The foregoing notes were made by me when in America with the British Rifle Team, and were the result of a careful study of the American system, in which I have made such slight changes as appeared to me to be judicious.

C. L. FRET,  
Lieut.-Col., Executive Officer, N. R. A.

A NEW RIFLE BY HAWK-INS.

POTTSVILLE, PA., Nov. 20, 1877.

EDITOR FOREST AND STREAM:

In your very valuable journal of Oct. 25, I noticed an article—"How to Catch Hawks." Its authenticity and the theory seems to me to be indisputable, and is likely to work in nice cases out of ten; but the hero of my story did not choose to accept a "conspicuous position from which to swoop down on his victims." A neighboring suburban family of this city is in the habit of stocking a choice variety of game chickens, and, frequently, a large chicken-hawk had been noticed sailing over the yard, high up in the air, and had been watched by a sharp-shooter, from a secreted position, with a hope of his descending to have a shot at him before pouncing on his victim. The watch was abandoned. The very next day the wife heard an unusual noise proceeding from the chickens in the large yard in the rear of the house, and upon going out discovered a hawk perched upon a rooster weighing about six pounds, and trying to carry the chancier into the air. The woman ran toward the scene of onslaught with the intention of frightening off the hawk, but the latter showed no inclination to leave just then, but still persisted in holding on to the rooster with its iron like talons, and fluttering at a terrible rate. The lady (not at all apprehensive of danger) seized his hawkship by the neck and strangled him. The hawk showed battle, and lacerated her hands with his claws in a frightful manner, but she clung on to the neck of the bird until life was extinct. The hawk measured five feet six inches from tip to tip of the wings, and weighed five pounds and three quarters.

DOM PEDRO.

THE NEW "SCOTT" REPEATING RIFLE.—Messrs. Turner & Ross, of Boston, have just perfected an arm for which hunters and frontiersmen have long experienced a want, viz.: An accurate, substantial and long-range repeating rifle at a reasonable price. This rifle is carefully and substantially made of the very best material, showing the finest workmanship and mechanism, and has not only a very rapid action, but a wonderful penetration at an extremely long range. Messrs. T. & R. are to be congratulated upon their ability to sell such a rifle at the price (\$15). It will command an immediate and extended sale. One of our best known riflemen said that it was a better gun for general use than one he had paid \$75 for.—*Adv.*

Game Bag and Gun.

GAME NOW IN SEASON.

- |   |   |
|---|---|
| Moose, <i>Alces americana</i> .                     | Pinnated grouse or prairie chicken                  |
| Caribou, <i>Tarandus rufifer</i> .                  | <i>Cyrtodromus cyrtoides</i> .                      |
| Six or wapiti, <i>Cervus canadensis</i> .           | Ruffed grouse or pheasant, <i>Bonasa umbellus</i> . |
| Red or Virginia deer, <i>Cariacus virginianus</i> . | Quail or partridge, <i>Ortyx virginianus</i> .      |
| Squirrels, red, black and gray.                     | Woodcock, <i>Philohela minor</i> .                  |
| Hares, brown and gray.                              |   |
| Wild turkey, <i>Meleagris gallopavo</i> .           |   |

"Bay birds" generally, including various species of plover, sand piper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets etc., coming under the group *Limacolor*, or Shore Birds.

MASSACHUSETTS—New Bedford, Nov. 28.—At about this season the amateur sportsman and dog may be seen in every direction around our suburbs, and the result is that large numbers of quail, partridges and rabbits are hanging at the doors of markets and groceries. Woodcock all gone; sea fowl plenty.

North Cohasset, Nov. 30.—Gunning poor this week—too much rain. Some geese have been shot flying over, but won't come in. Whistlers just arriving; bags of three and four to a man have been shot. Partridges plenty, but wild-going into trees when started, and almost impossible to start quail twice the same day.

RHODE ISLAND—Newport, Nov. 30.—Fine weather, no birds, no shooting, except a weary sportsman now and then makes a bag of two or three gray and white gulls; the small game birds all gone.

PENNSYLVANIA.—The Philadelphia *North American* of Monday says: Our exchanges from the central and western part of the State furnish a striking evidence of the folly of those who journey to Colorado and Minnesota for hunting, and a flat contradiction to all who suppose that abundant pig-iron, coal, factories and railways are incompatible with the joys of Gordon Cumming. The *Lock Haven Democrat* of the 23d, summarizing the success of sporting parties in nine towns within a short space of time, shows that the expeditions of one or more individuals killed one otter, two mink, four raccoons, fourteen bears, and fifty-seven deer. That is, perhaps, as good a bag as was made in the same period by as many individuals anywhere east of the Mississippi, and its edges were ornamented by partridges, squirrel, and other small game, which is as welcome to the purchaser as to the hunter.

Greenville, Nov. 25.—J. F. Nelson and M. Hergen Brooks, of this place, bagged a fine bag of quail and grouse at Orangeville, O., one day last week. The Shcncango and Allegheny Valley Railroad, of which Mr. J. T. Blair is Supt., runs from this place to the oil regions. There is some fine bird and rabbit shooting along the line of the road. A party came from there last Saturday with fine bags of game.

Petroleum Centre.—Ruffed grouse are far more plentiful than usual, and lie fairly to the dog, and a fair shot can get 8 to 10 a day: woodcock have all left; gray rabbits are very numerous; no quail, foxes *quantum suf*; an occasional deer or two, and pigeons by the million.

Drum's, Nov. 27.—On the 27th of November Samuel Hubb and George Hunter killed six ruffed grouse and four rabbits, I and Jacob Richards killed seven ruffed grouse and two rabbits. On the 21st I killed four pigeons out of six, out of a trap.

Greenville, Nov. 30.—J. T. Nelson, H. E. Camp and W. Gouchet shot twelve pheasants, ten quail and five rabbits on Tuesday last, a short distance from this place.

NEW JERSEY—Kinzey's Ashley House, Barnegat Inlet, Nov. 28.—Continual storms past week, very high tides and not much shooting, but plenty of fowl. Brant still continue to come on, and as soon as tides fall, that we may find places to hide in, expect some big bags.

SOUTH CAROLINA—Charleston, Nov. 30. There was some good shooting among the birds; several of our good shots brought in full bags of partridges and ducks. Two parties were out after deer, and both brought in a fine buck each. Wild turkey are very plentiful, and a friend told me that in a very few days he had brought in eleven, and had missed several shots. While out last week after deer the same party started a flock of over thirty full grown birds.

GEORGIA—Myrtle Grove, Bryan Co.—Our prospects for shooting are splendid this winter. I found five coveys of partridges yesterday in a twelve-acre field. Eleven rattlesnakes were killed about here last week. They are a drawback to shooting. There are lots of turkeys and deer in the woods.

FLORIDA—Headwaters of St. Lucie River, Nov. 14.—Duck of various kinds are beginning to arrive in this section by millions, and in a short time the prairies between here and the headwaters of the St. Johns will be alive with them. I think this section of Florida would be well worthy of a visit by northern sportsmen this winter, as game of all kinds is much more plentiful than anywhere else in Florida that I have been. Deer, turkey and smaller game, such as partridges, snipe, etc., plentiful, with occasionally a bear or panther. Mr. Maxfield Brannon, living near here, two weeks ago killed a very large male paubler.

A party of some twenty-five or thirty Seminole Indians passed through here about six weeks ago; they are now hunting near the headwaters of the San Sebastian River. I did not see them, but I learn from those who did that they report the existence of an immense snake in the swamps around Lake Okuchobu, which from their description must be a species of boa-constrictor. They said they would return this way in three months; when they do, I will learn from them the truth of the report, and write you particulars.

ARKANSAS—South Bend, Nov. 27.—Game is plentiful. Deer, turkey, bear and ducks are coming in in great numbers. Squirrels are more plenty than for some time back.

MICHIGAN—Detroit, Dec. 1.—E. H. Gillman has recovered his Chesapeake Bay duck dog, Pride of Chesapeake, which was stolen some time ago. A friend of mine returned from Frankfort, Mich., this morning. He says deer and bear are very plenty. Three brothers, named Broderick, returned to Frankfort, Nov. 27th, from a nine days' deer hunt, with twenty-seven. W. C. Colburn and F. J. Standish, of this city, have been up to St. Clair Flats for a few days sport. They had very fine sport, getting 300 ducks (100 canvas backs, 150 red-heads, 35 blue-bills, 5 pin-tails and 10 butter-balls), 5 wild geese, 2 swans, 25 quails and a wild turkey that weighed 184 pounds. This bag is about the finest made in the vicinity during the season. This cannot be wondered at much as Mr. Colburn is an excellent shot, and is one of our most thorough and gentlemanly sportsmen.

WISCONSIN—La Crosse, Nov. 27.—Ducks have remained with us longer this fall than was ever known before. Parties go up to the Lake (an expansion of Black River) on the Miss. Bottom and come home laden with mallard, and they are too fat, if such a thing can be. Woodcock have been very scarce this fall, have not seen one. Chickens were plenty in season, hundreds of them can be seen in the corn fields adjoining the village, and are being trapped by the farmer boys and pot-hunters.

KANSAS—Atchison, Nov. 27.—The shooting this fall on quail is the best we have had for years; the country is alive with them. Duck and grouse shooting has been very poor; they appear to have missed us in their flight.

—We have been surprised that before this our English friends have not been using glass balls for practice. We think it worth while to mention that an order has just been received by Captain Bogardus from England for 10,000 balls and 24 traps.

CAPTAIN BOGARDUS.—As may be seen in our advertising columns, Captain Bogardus proposes breaking 5,000 glass balls in 500 minutes, which is 100 balls every ten minutes, besides the misses. This event will take place at Gilmore's Garden on the 3d of January, commencing at 3 o'clock in the afternoon. In Philadelphia Captain Bogardus, at an exhibition given by him at Kiralfy's theatre, broke 300 glass balls in 2 1/2 minutes, and with a pistol, springing his own trap, broke 17 out of 28 balls. Doubtless this wonderful trial of skill and endurance will draw a numerous attendance. Captain Bogardus will shoot at the Olympic Theatre next week, commencing on the 10th.

AN AVERAGE PUZZLE FOR MATHEMATICAL SPORTSMEN.—A boy who had been upon a shooting excursion found upon his return that he had expended exactly one hundred shells, and that his game amounted to exactly one hundred head. His bag consisted of black birds, squirrels and woodcock. In killing the first he had, with each shell used, secured sixteen birds. Each squirrel had cost him one shell, and each wood-

cock ten. How many of each kind of game had he killed to thus bring the average to one shell to each head?

OCCASIONAL.

[We have the answer to this problem. It is so instructive that the successful student will feel sufficiently rewarded with out expecting any prize.—Ed. F. & S.]

NOT MUCH OF A SLAUGHTER AFTER ALL.—Although he may not want to do it, your correspondent S, Nov. 23d, page 314, needs information relative to the "side hunt" by members of the Worcester Sportsmens Club. A score or more of gentlemen hold a meeting during the open season, unite upon a day when they will go shooting, agree that ruffed grouse (known in Boston and throughout this State as partridge) shall score 25 points, woodcock 20, snipe 20, quail 20, weasel 25, squirrel 15, hare 10; sides are chosen, fifteen men on each, thirty in all. The day arrives—one of autumn's best—the shooters go forth to duty; the evening's full count is 63 partridges, 17 hares, 8 woodcock, 6 quails, 3 squirrels, 1 snipe, 1 weasel—averaging, per man, 2 1/10 partridges, 17-80 hare, 4-15 woodcock, 1-15 quail, 1-10 squirrel, 1-30 each snipe and weasel, a total of 1145 points for one side, 970 to the other. What slaughter! what slaughter!! even if all had been killed in Massachusetts, which they were not. The game was dressed, nicely cooked and eaten, long before it got "high" or any of its partakers. To me, Mr. Editor, this seems altogether a case of more fuss than feathers. K.

Worcester, Mass., Nov. 26, 1877.

THREE BLACK CROWS OUTGENERAL THE AMERICAN EAGLE.—Our Barneget correspondent sends us the following interesting report (handed to him by Mr. Frank Green, of the Signal Service) of an encounter between an American eagle and three crows at Barneget Inlet:

At 12:30 P. M., Nov. 23, 1877, I watched, through a powerful telescope, a large eagle on the beach eating a fish. Around him, hopping demurely, were three crows, who would pick up small pieces of the fish. The eagle seemed not to notice them much; but finally, wearied of their attentions, he seized his fish in his talons and flew off some 100 yards. The crows immediately rejoined him, and two of them took position close together some four feet in front of him. The third crow, a small, "devil-may-care" fellow, went to the rear, reached cautiously forward and plucked his tail. The eagle, surprised, jumped and turned sharply to the rear, when one of the two in front dashed boldly forward, seized the fish and flew off in triumph, followed by his companions. The eagle, after looking around foolishly for a few moments, flew off to forage for another fish.

A SHARP GAME BIRD.—Mr. George C. Harding writes to the Indianapolis Herald what he knows about the mallard. We vaguely surmise that none of those birds graced the game bag when the writer returned from his last hunt:

Among the millions of ducks in this region (Illinois) are found many varieties—the mallard, the pin-tail, the bluebill, the spoonbill, the teal, the canvas-back, the red head, with occasionally the great black duck—but the mallard predominates. Much shooting hath made all of them exceeding sharp, and even the little butter-ball, which in our own waters is comparatively tame, here acquires a habit of flying half way between the earth and the moon. As the result of much study and experience in the mallard is the sharpest and most vigilant of all. Talk about the eagle's eye! Its gaze is a mere blink to the scrutiny with which a circling mallard reconnoiters the topography of the country before alighting. Around and around he goes, at an elevation carefully calculated to keep him out of range of the best English breech-loader, his long neck turned here and there and everywhere, and his piercing eyes noting everything. If a bunch of willows has been misplaced—if a suspicious lump of humped-up brown is discovered among the reeds—he don't alight. What a less observing bird would take for a harmless domestic animal, or a stump, or a log, he immediately recognizes as a man. He is a civil engineer, is your mallard, and can calculate distances to a nicety. It is only by an occasional indiscretion, or a bit of dare-deviltry, that he comes within range of the hunter's gun, except at his feeding places. The mallard is a great gormandizer, and at the inexorable demand of his stomach he takes risks which with a full stomach he would consider suicidal. But even then he is prudent. His feeding places are usually impassable marshes, where even the high rubber boots of the hunter are no protection.

A GREAT SHOOTING COUNTRY.—The London World tells of a battue in Bohemia. It says: "Bohemia, after all, is a country to live in. In less than eight days a shooting party on Prince von Schwarzenberg's estate have brought down 4,000 hares, 100 roebuck, 680 deer of other kind, 43 boars, 250 pheasants and 1,600 partridges. Only fancy, four dozen boars! What terrible pig-sticking!"

SPORT IN CLINTON COUNTY, PENN.

OUR party consisted of Messrs. Adam Carothers, of Linden, Pa.; W. McVieker, Ray Smith and John Bub, of Williamsport; Mr. Sullivan, of Philadelphia, and myself. We met at the hospitable mansion of Mr. Carothers on Oct. 29, where we were greeted with the news that bears had come down from the mountains the night previous, and that two had been seen about a quarter of a mile from the house, causing quite an excitement among the few residents of that part of the country. We at once shouldered our Winchester and sallied forth in quest of bears, which were presently discovered regaling themselves up a tree, unconcernedly munching the tender nut. Their festive entertainment was, however, suddenly interrupted and ended, and amidst a general babel of dogs, shots, hallooos and growls, we brought our game safe and dead to terra firma. Inspection proved them to be two cubs, weighing from twenty-five to eighty pounds each, and in prime condition. The mother, as subsequently ascertained, was killed the day previous, about five miles from Linden, on the P. and E. R. R. The skin of the larger cub I brought on to be tanned. This little episode increased our desire for additional adventure.

Bright and early Monday we started for the mountains, taking a wagon and plenty of provender. We arrived at our destination about 1 P. M., having ridden a distance of thirty-five miles over pretty rough roads, about 8,000 feet above the level of the Susquehanna in the counties of Lycoming and Clinton. We found the country very thinly settled; the next house beyond ours was fourteen miles distant. The people were very kind and obliging; gave us all the best points about stands, etc., known to themselves, and, I must say, we had a delightful time. We remained ten days; the first part we had very bad luck, all the deer seeming to run to the splash dam about seven miles away, and were there killed and cut up before we arrived. This being my

first trip after deer I was fearful of getting the "back fever," but my credit be it said I did not experience the least nervousness, when a large doe was chased opposite to me by a fine dog owned by Mr. Carothers. I checked her with a blast and took deliberate aim, sending a ball completely through her heart—a splendid shot the old hands said. My friends congratulated me by seizing my hands and feet and bringing the seat of my trousers in sudden contact with a large pine tree. This I was informed was the custom practiced on the party killing his first deer. We killed six deer, which with the two bears made quite a fine show. Let me advise any one going on a similar hunt to take a pair of "shoe packs" instead of boots or shoes, as I found them to be the only things fit to wear on such tramps. They give plenty of room for the feet to move in, being flat with wide soles. No blisters or chafing I will always use them except for swamps. T. E. HANNAISON.

—Glass ball shooting is fast gaining ground in England. We have just been shown an order from Messrs. Williams & Powell, of Liverpool, for thirty Hiber's traps and several thousand of Paine's patent feather-filled balls. This is the second large order sent by this party to Mr. Ira A. Paine.

PIN-FIRE GUNS.—We publish an interesting defence of pin-fire guns. We must, however, give it to be our opinion that for pin-fire guns centre-fires have been properly substituted. The trouble about pin-fire guns and cartridges, our correspondent seems perfectly aware of. A pin-fire gun is more complicated, and there is greater chance for escape of gas. The cartridges are harder to load, take up more room in packing, are more readily exploded, and public opinion among sportsmen for these reasons is against them. We may be said to be fairly familiar with pin-fire guns, having used one in France as early as 1850, an excellent pin-fire gun of Le Fauchoux's make. It was an admirable arm, and good for the time, but we have done better since with later inventions. As to the second portion of our able correspondent's letter, we beg to remark that omissions of the names of States, in hunting reports, are accidental:

BATON ROUGE, La., Nov. 21, 1877.

EDITOR FOREST AND STREAM:

Sir—In your interesting paper there has lately appeared several derogatory remarks on pin-fire shot-guns. As the question of the comparative merits of sporting guns is one which is interesting to all sportsmen I wish to write a few lines about the subject. To commence with—not from any egotism, but to show that I know something about what I'm writing—I will say that I have used pin-fire guns when breech-loading shot-guns were first introduced to any extent in this country, eleven years ago, and that I have used many guns, English, French, American and Belgian, not only breech-loaders but muzzle-loaders. I claim for the pin-fire positive action breech-loader:

1. A simplicity in its make and a durability not found in the ordinary fashionable centre-fire gun. The pin-fire positive action gun has no more springs than the muzzle-loader that is, its only springs are those in its locks, while the "modern" centre-fire gun, snap-action, has springs for its firing pins (generally) and springs to lock the barrels. Any mechanic will tell you that springs are an element of weakness in a piece of machinery. Break or disable your locking spring and where is your fa-hionable gun?

2. The pin-fire gun requires no additional machinery to extract the shell, as in centre-fire guns. They are pulled out by the hand. If, as often has happened [start not, young sportsmen, with your new patented snap-action, rebounding locks, pistol-grip and other humbug new invention, fashionable gun. Such things do happen, though you may be too new in shooting to have seen them], the extractor slips by the head of the shell a great deal of trouble ensues which is not found in the pin-fire gun. The additional machinery is a sign of weakness in the centre-fire.

3. You can always tell at a glance whether the pin-fire is loaded or not, which you can't do without opening the barrels in most centre-fires. This is a great advantage. Every season numerous accidents happen from people not knowing whether their guns are loaded or not.

4. In the pin-fire gun the hammers stand up above the barrel, like in a muzzle-loader, instead of being low down and below the barrels as in most centre-fires, thus giving a better and quicker aim to the sportsmen as they guide the eye in taking aim.

It has been objected against the pin-fire that—  
1. The cartridges are hard, or rather soon will be hard to get.  
2. That gas escapes sometimes by the pin.  
3. That they (the cartridges) are harder to pack and to carry than the centre-fire.

4. That the pin-fire is old fashioned.

I will refute these objections.

1. The French use nearly universally the pin-fire. And France is the country where the breech-loading shot-gun, in its modern form, was first adopted. Over ninety-five per cent. of French guns are pin-fire. As long as there is a sportsman left in France, or there is a game-bird left there to shoot, pin-fire guns and cartridges will be used. And this holds good also of Spain, Portugal and the Latin nations of Europe generally. I do not, Mr. Editor, speak from hearsay, but from having been in those countries and seen guns used there. I am also credibly informed that the majority of guns used in Germany and the North of Europe are also pin-fire. The French use pin-fire not only for their shot-guns but for their rifles and revolvers. It has been my fortune to have owned many revolving pistols, and the best I ever shot or saw for accuracy, surpassing our famous Colt, our improved Smith & Wesson, and the English Trauber & Adams, was a French metallic pin-fire revolver. It is said pin-fire cartridges are harder to reload. I will grant this when metallic cartridges are used. But in what relates to shot-guns I refer to paper cartridges as I have found them, even when but once used, much more satisfactory (if a little dearer) than metal ones.

2. The old muzzle-loader most of us veterans believe to be fully as good a gun, as far as shooting goes (and some of us even think a harder shooter), than the breech-loader. Yet there was much more escape of gas at the nipples than there is with a pin-fire cartridge. The advantage of a breech-loader is in safety and general handiness, not in its shooting powers.

3. I have never found any difficulty in this respect. By placing them alternately heads up and heads down they can be as closely packed as the centre-fire. And I know they are as safe, from years' experience with both.

4. "They are old fashioned." Ah, Mr. Editor, in this matter, as in many more important, this is the great, the most damnable charge that can be brought in this present age of (pretended) progress and improvement. The people of to-day look for nothing but new fangled things, forgetting that change is not necessarily improvement. In their mad career after what is new they have abandoned the fine sense of honor, the integrity, the gentleness of their fathers. And it is mostly the people of this country that are to blame in this matter. But let me remind them that even their boasted "Great Republic" is only an experiment, that has been tried before and will probably be buried in the ashes of the past; when "old fashioned," but true, substantial govern-

ments will be in existence when the "Best government the sun ever shone on" will be dead and gone. But I must find it getting into the province of politics in which "our paper" has nothing to do. So I'll stick to the guns. It would be folly to suppose that pin-fire guns will ever be adopted in this country. The rage for new fangled things has swept them away. But I cannot see a good thing—if it is old—abused without raising my feeble voice in its defence.

To refer to something else. In No. 12 of the present volume there is a letter signed D. H. S. requesting some changes in the paper in regard to "Letters from sportsmen." I also have a suggestion to offer. I do this all the more freely as I have subscribed to your paper from the start; before that to the Red and Gun, and before it commenced to the Spirit of the Times. So you see I'm an old subscriber to sporting papers. My suggestion is this: that you publish at least the name of the State (if not that of the place) from which your letters and communications are sent. In a large country like the United States where there are all kinds of game, from those of the sub-arctic to those of the quasi-tropical, and where various and different kinds of hunting are in use, it is not only interesting, but absolutely necessary to know from what State the letter is sent. Much the more so as two great sections of the country, viz: the Northeast and the South and Southwest are so different in feeling, in thought, in ways of looking at things, in belief, customs and manners that it becomes imperative for a clear understanding to know where the articles are written from. I make this remark only from a wish for the complete success of the paper, as it is the paper, so far, that most devotes its columns to the interests of the lovers of field sports.

HONNIE BLUE FLAG.

DUCKING ON THE ST. CLAIR FLATS

TORONTO, Nov. 24, 1877.

EDITOR FOREST AND STREAM AND ROD AND GUN:

I have just returned from my annual fall holidays, which I have spent in the same place for the past seven years—viz., the St. Clair Flats—and I thought you would like to hear a little about the doings of the various gentlemen who were at the same place this fall. A year ago I was fortunate enough to have had a share in the St. Clair Flats Shooting Company offered to me, and when I took everything into consideration, I came to the conclusion to take possession of that same share, and my experience this fall has led me to the conclusion that I did a very wise thing. The company control the shooting over 20,000 acres of marsh, and were very careful in seeing that there was no spring shooting done upon their preserve. The company have had a very fine club house erected especially for the members.

The shooting this year has been better than any previous year since I have been going up there, showing thereby that when the preservation of the marsh is properly carried out, it affords the members most excellent sport. Especially is this so in regard to the big ducks, as the following incident will prove: Last year Mr. Geo. Wain, our one-handed champion boat builder, killed and brought into the club house 147 big ducks. This year, on the 29th of October, he killed 177 big ducks, consisting of mallards, black greys, and a few pintails. On Nov. 6th he had another very good day, killing 123, all big ones. Other members of the club succeeded in getting the following bags, which, although not so large, are considered a good day's sport—45, 54, 55, 55, 55, 51, 41, 33, besides any number of bags under 30 and over 20. The members never leave the club house until 8 A. M. and generally stop shooting about 5 P. M., sometimes earlier, just according to the distance they are away from the house.

For some unaccountable reason red heads, blue bills and other river ducks were not so plentiful as in former seasons at least not so in the present. I might, in conclusion, add that we employ no punters, and that the above bags were all made by the members personally.

T. G. C.

CEDAR RAPIDS, Iowa, Nov. 30, 1877.

EDITOR FOREST AND STREAM AND ROD AND GUN:

In your issue of 22d inst., W. H. S. Lynn inquires for a "good single barrel breech-loader." He can procure just what he wants of Nicholas & Lefevre, Syracuse, N. Y. I know whereof I write. W.

PIGEON MATCHES.

MAINE—Fozzeroff, Nov. 29.—A glass ball match; the following is the score:

Table with 2 columns: Name and Score. Includes Wm Lee, J C Weston, H Ellison, Wm Waterman, C Paul, J F Longce, J W Campbell, J H Shaw, J K Chase, C C Weston, R Hill, C Bird, W H Norton, F Sargent.

Ties for second money—Shot off at 21 yards.

Table with 2 columns: Name and Score. Includes Wm Waterman, C C Weston.

Messrs. Waterman and Weston tying again, shot 5 additional balls.

Table with 2 columns: Name and Score. Includes Waterman, Weston.

NEW JERSEY—Riverton, Nov. 29.—25 yards rise, 80 yards boundary:

Table with 2 columns: Name and Score. Includes Ogden, Cook, Biddle, Carpenter, W Ellison, Fushman, Dreer, Flanagan.

Tie on ten.

Table with 2 columns: Name and Score. Includes Ogden, Cook.

Same Day—Pigeon match between Messrs. R. H. Wells, R. Wells, Jr., J. B. Ellison, C. C. Reinhard and G. W. B. Roberts, all members of the Riverton Shooting Club, 21 yards rise, ground traps, 80 yards boundary, at 15 birds each, with the following results:

Table with 2 columns: Name and Score. Includes R H Wells, W B Roberts, J B Ellison, C C Reinhard.

FOUNTAIN GUN CLUB.—Brooklyn Driving Park, Parkville, L. I.—Pigeon shooting, Fountain Gun Club, Nov. 29; shot for a gold pencil and pen presented by Mr. White; offset for at 7 birds each; handicapped distance, 80 yards boundary; Fountain Gun Club rules.

Table with 2 columns: Name and Score. Includes O'Connor, Edly, Williams, Madison, Miller, James, French, Byrne, White, Heimsied, McMan, McWhorter.

Same Day—Sweepstakes, \$3 each, at 3 birds each, at 30

yards rise, 80 yards boundary, with 1 1/2 ounces of shot; Fountain Gun Club rules.

Table with 2 columns: Name and Score. Includes Williams, Wilson, James, Gliderleeve, Redding, Hemming, Medl-on, and White.

Referee, both shoots, Mr. Walton.

NEW YORK—Buffalo, Nov. 30.—The Buffalo Gun Club held their regular shoot at their grounds on Nov. 29, for the club prize; H and T traps, 21 yards rise, 80 yards boundary. The following was the score:

Table with 2 columns: Name and Score. Includes C C Pickering, Richard Edge, J G Gibbons, W H Price, T H Oving, F B Pickering, and W W Ransom.

Ties of eight, shot off at 20 yards, 5 birds.

Table with 2 columns: Name and Score. Includes C C Pickering, Richard Edge, and J G Gibbons.

Ties of four, same distance as above, 2 birds.

Table with 2 columns: Name and Score. Includes F B Pickering.

DEXTER PARK, JAMAICA ROAD, L. I., Dec. 1.—First sweepstakes had six competitors at \$5 each, making \$30, which was divided \$17 to first, \$8 to second, and \$5 to the third.

Table with 2 columns: Name and Score. Includes Ward, Gliderleeve, Williams, Burroughs, Woods, and Rivers.

\* Divided first and second money.

\* Fell dead out of bounds.

SAME DAY.—SWEEPSTAKES—With nine competitors at \$3 each, total \$27, divided \$18 to first, \$9 to second, and \$5 to the third, at 5 birds each, 25 yards rise, and the other conditions same as above.

Table with 2 columns: Name and Score. Includes Williams, Rivers, Gliderleeve, Murphy, and Burroughs.

\* Divided first and second money.

\* Fell dead out of bounds.

Referee—Chas Dexter. Time of shooting—One hour and forty-five minutes.

SPLIT BAMBOO RODS.

To our customers and the public:—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON, Manufacturers, 65 Fulton Street, N. Y.

Sea and River Fishing.

FISH IN SEASON IN DECEMBER.

Table with 2 columns: Fish Name and Seasonality. Includes Slack Bass, Yellow Perch, Sea Bass, Pike or Pickerel, and White Perch.

FISH IN MARKET.—The tempestuous weather of the last week having made fishing difficult, market supplies are scarce and prices rule very high: Striped bass, 25 cents; large, 20; smelts, 25; bluefish, 15; salmon frozen, 35; mackerel, 15 to 25; Southern shad, \$1 50 each; white perch, 15 cents; Spanish mackerel, 30; green turtle, 13; terrapin, \$10 to \$30 a dozen; halibut, 20 cents; haddock, 8; codfish, 8; black fish, 15; flounders, 12; sea bass, 20; eels, 13; soft clams, 10; sheephead, 25; scallops, per gallon, \$1 50; sturgeon, per 100, 30 to 60 cents; whitefish, 15; pickerel, 15; salmon trout, 20; hard crabs, per 100, \$3.

MOVEMENTS OF THE FISHING FLEET.—The sch. Live Yankee, of this port, the last of the Bay of St. Lawrence mackereling fleet, sailed from Port Mulgrave on Friday of last week with a fare of 145 bbls. mackerel. The number of United States vessels in the bay this season has been 140, of which 86, or over 61 per cent., hailed from Gloucester.

This is the season at which the Bank fleet is at its minimum, and the Georges fishery draws to a close. The number of Bank arrivals reported the past week has been 10, bringing 33,000 lbs. halibut, and 275,000 lbs. codfish. Number of Georges arrivals reported, 10; catch, 160,000 lbs codfish, and 1,000 lbs. halibut.—Cape Ann Advertiser, Dec. 1.

HOW TO PRESERVE FISH.—It often happens that amateur fishermen in this country catch a great deal more fish than they need for present use. Such may be glad to know the following easy method of preserving it recommended by a high scientific authority, M. A. Meisel: "The fish, raw or boiled, and cut in slices (if the promptest results are desired), is placed in a bath formed of ordinary water and citric acid, in quantity sufficient to make it strongly acid. After two or three hours the piece is removed and subjected to moderate artificial heat or left in the open air till dry (the former takes about one hour, the latter five or six). The fish can now be kept for years in any place. To restore its flexibility, all that is needed is to keep it three or four days in fresh water. Entire fish may be preserved in this way after removal of the intestines." Adirondack Fish-dried this summer have proved delicious.

PENNSYLVANIA, Leroyville, Nov. 26.—The picturesque Mountain Lake is situated in the town of Burlington, Bradford Co., Pa., some ten miles from the county seat Towanda. It is nearly round, and with an area of one hundred acres. The water is clear and deep, and well-stocked with pike, yellow perch and sunfish. It has a broken border of cleared land and woods, and on its western bank is a large plot from which the small brush has been cleared away, leaving the larger trees, which form a grove where many a picnic is held each year. At several places boats are furnished, all very tastily painted and provided with all the necessaries which add to the comfort of the fisherman.

Rational Pastimes.

KNICKERBOCKER ATHLETIC ASSOCIATION.—The inaugural meeting of this new club was held at the American Institute Building last Monday evening. The sports were witnessed by about five hundred spectators. The walk is oblong, perfectly level and one-eighth of a mile around. How the young athletes acquitted themselves may be seen from the subjoined summary:

Eleven events were on the programme which had eighty-eight entries. Trial heats of a dash of seventy-five yards opened the sports. The final heat brought F. Henshaw, Harlem Athletic Club; G. McNichol, Scottish-American Club, and J. B. Elliott, of Greenpoint, to the starting line. Elliott headed the winner in rare good shape by two yards in 8 1/2 seconds. Among the winners of the trial heats was M. McPaul, of the Fanwood Athletic Club, who is a deaf-mute. It was his first public race, and he ran very creditably. The champion amateur pedestrian, T. H. Armstrong, Harlem Athletic Club, won the one mile walk in 7m 32s, beating, in his old time style, T. J. Mori, of the same club, and G. Buckley, Scottish-American Club. The latter finished second, but was disqualified. Twelve started in the open dash of one-quarter of a mile. A. B. Pierson, Waverly Athletic Club, Newark, won the final heat and secured first prize in 1m 3s. G. McNichol, Scottish-American Club, was announced as the best man in the running broad jump a 17ft 2 1/2in, though the decision was questioned by the friends of W. T. Livingston, Harlem Athletic Club, who reached 17ft 2in on the ground of an error in measurement. W. Hayes jumped 15ft 9 1/2in. In the three mile walk T. H. Armstrong again proved the winner. He beat T. Bulkley and J. J. McLeod easily. Armstrong's time was: First Mile, 7m 29 1/2s; two miles, 15m 55 1/2s; three miles, 24m 32 1/2s. J. B. Hanna, with 6ft 1in, was awarded first prize in the running high jump. J. Christian, Scottish American Club, had no difficulty in winning the one mile run from H. O. Rommel, Triton Boat Club, in 5m 23 1/2s, and A. W. Adams, Scottish-American, put the shot 34ft 11 1/2in, just 2ft 7 1/2in further than McNulty, who obtained second prize. W. F. Myers, Orion Rowing and Athletic Association, captured the hurdle race, 120 yards, ten flights, the final heat being in 13 1/2s. Frank M. Clinch secured the club quarter mile in 1m 6 1/2s, and the half mile dash fell to W. J. McNulty, Union College, Schenectady, N. Y., in 2m 26s.

SCOTTISH AMERICAN ATHLETIC CLUB.—The third annual handicap games were held at the club grounds, No. 329 W. 54th Street, Dec. 1. The entries and winners were as follows:

Two hundred and twenty yard run, trial heats, first in each heat to run in the final heat. First heat C. Stewart won in 34s, the second heat was run alone by Mr. J. Knox in 36s, the third by H. H. Moritz in 34 1/2s, and the fourth, between Messrs. Faribron and E. Arnold, was won by the latter in 28 1/2s. One mile walk was won by G. A. Lunnin, 2m start, in 8m 12s. In the running high jump J. B. Hanna, won, 5ft 1in. This gentleman, who was allowed 3 inches by Mr. Knox, was therefore the winner. Putting the shot was won by Hanna with handicap of 11ft. The half mile run.—Messrs. Arnold, Faribron and Hanna took 30 yards start. Arnold won easily in 2m 19 1/2s. There were three entries in vaulting with the pole, M. E. More, J. B. Hanna and J. Knox. More won by 4in. He cleared the bar when 7ft 4in from the ground. The 440 yard run, trial heats, first and second in each heat to run in final heat. In the first heat Knox won; the time was 65s. The second heat was between Messrs. Stewart, Moritz and Arnold, who won in 71m, 60 1/2s. He had ten yards start of Stewart and five of Moritz.

The next feature was the final heat of the 220 yard run between Messrs. Arnold, Moritz and Knox. The men reached the string in this order, Mr. Arnold's time being 27s. The three mile walk was won by J. J. McLeod, O. Connor was second, J. L. Newbery third and T. Buckley fourth. The winner's time was 27m 7s. Connor's was 36s behind. Then came the final heat of the 440 yards run between Messrs. Arnold, Moritz, Knox and Faribron. Mr. Arnold won in 50 1/2s; Moritz was second and Knox third. The games closed with the "lug of war," ten men on each team.

For Forest and Stream and Rod and Gun. AMONG THE MOUNTAINS IN SOUTHERN CALIFORNIA.

I DOUBT if any State in the Union presents a more attractive field for the hunter or sportsman than California. Since its completion the Texas Pacific R. R. proceeds the entire length of the State to the Colorado River, making its way through the valleys at the foot of the Sierra Nevada and Sierra Madras, and thus presenting to the hunter 500 miles of magnificent ground unsurpassed for accessibility, extent and variety of game. In the mountains may be found the grizzly, cinnamon and black bear, deer and the California lion—which, by the way, is a notorious coward. The deer and antelope migrate to the lower levels during the winter months. Here are also seen the mountain quail, a lordly bird, which is as white-meated as a chicken, and attains a large size. On the plains are numberless quail and hare, and on the lagoons and rivers, in the winter, may be found immense quantities of wild geese, canvas-back and mallard ducks with the more common varieties. Approaching in great flocks during the months of October and November for their winter's sojourn, they remain until spring, infesting the rivers and grain fields of the upper and lower Santa Anna valleys, offering rare sport.

These mild, sunny, winter days find me occupying, as a centre from which to make excursions, a charming little town in the upper valley. To the north, twenty miles distant—but apparently but five in this pure clear air—lofty Concomung, rising abruptly from the plain, uplifts 11,000 feet of serrated cliffs and canyons. The approach is from the eastern slope, where the canyon pass, forming a gate through the Sierra Madras at this point, allows a comparatively easy access to its otherwise inaccessible heights. In its woody canyons are all the varieties of our mountain game.

A few years ago one had the surety of a fine basketful of trout on many of the streams, but of late the fishing is not as satisfactory. On the San Bernardino range, however, which makes its way Southward from the Cajon Pass, there are several streams, at the head waters of which, if you are good at climbing, can be had fine fishing. The springs are icy cold, thus giving the trout an excellent fineness and flavor. But the true paradise of the camper—the Mecca of the sportsman—is San Jacinto, which reposes in its rugged outlines

forty miles to the South. Its characteristics are a series of densely wooded mountain valleys on a plateau 5,000 feet in altitude. High above these springs the crested peak of Tockwitch (Devil), 4,000 feet high, the mysterious land of the clouds. Leaving horses behind, a difficult trail leads you upward to the gateway between the peaks, through which you pass into the Tockwitch Valley. This has been invested with a sort of superstitious interest by the dwellers of this mountain land. There are rumors of an extinct crater, a lost ledge of solid gold, a wild man of the mountains, and I know not what else. This belief is heightened by an occasional dull, heavy booming which is heard on the clearest days. This has since been explained by scientific parties as being reverberations of thunder along the Colorado River. But whatever else this valley may contain there are numerous glens and small valleys wooded with the pine and mountain oak, watered with icy cold springs, with an abundance of green grass. Here the deer are reported to migrate in droves during the dry, parched summer of the lower plains.

We had been in the lower mountain valleys for several days, enjoying very good sport among the squirrels and mountain quails, with an occasional shot at a deer, but owing to the rapid settlement of these valleys of late by lumbermen, with two sawmills also in operation, they had evidently chosen remoter covers. This was likewise apparently the case with bears, although one Thomas, a wealthy stock owner, had recently succeeded in poisoning a 2,200-lbs. grizzly in this vicinity, and the tracks of another had been discovered a few days previous which measured nine inches by fourteen inches.

We were thus in a fair way of continuing our diet on squirrel and the mountain quail—which, by the way, is a noble bird, and deserving of further mention—when a friend providently brought in a haunch of a yearling calf in a fine condition, which he had shot from a noble herd of deer the day before. This decided us for an extended hunt, and a few days later found us, devoid of all superfluous articles, toiling our way over the divide into this valley of mystery. A day of reconnoitering followed, resulting in the selection of a fine camping place on the eastern slope of the highest peak, which towered above us, giving promise of magnificent views. Night soon fell about us, the cool, thin air necessitating a roaring fire, about which we gathered with pipes and stories until, tired with our long tramp, one by one we sank into oblivion. The next morning, just as the old gray sentinel above us was catching the first rays of the sun, while the valleys were yet in shadow, and C., engaged in replenishing the fire, was admonishing us to up and make ready for the day's sport, a distant, whip-like crack of the rifle made known to us that one of our ambitious Nimrods was absent on the chase thus early. Some time elapsed, during which the quail were taking on a beautiful brown and the coffee was steaming furiously, when H. fired in upon us, puffing with excitement and the thin air, informing us that he had come upon a drove of fine deer in a ravine hard by, which being shot at made off up a long, narrow valley, which had given indications the day before of being a good cover, as large patches of grass on its side showed existence of springs. Our breakfast was soon dispatched and the plans for the day's campaign completed.

C. and myself making a long detour, struck the upper end of the valley, where we separated in the thick *maniseta* bush, each taking a side of the ravine. After beating about for some time, losing my companion in the meantime, and hearing an occasional rifle-crack, I climbed the ridge, discovering on the other side a beautiful little valley running parallel with the one I had left. Slowly I descended, I had nearly reached the bottom, where a small stream made its way, when there came a succession of rifle-shots but a short distance below. Surmising that this came from H.'s Winchester, I quickly got into cover, and had waited but a short time when there was a quick, nervous rustling through the bushes, and out sprang a buck, quickly followed by several does hardly fifty yards distant.

Rising quickly, I took a steady aim at a fine-looking animal in the centre of the drove, and, firing, had the satisfaction of seeing her jump high in the air and fall with a few brief struggles, while the others immediately made off up the ridge and disappeared. H. and myself soon reached the rendezvous with our game, where, comparing notes, we found the result of the day's sport to be three fine deer. Twenty-one had been seen during the day.

An ascent of the peak was decided on as the programme for the morrow, and owing to its apparently volcanic origin, it looked a somewhat dubious task. Devoid of trees, it rose a battlement of granite cliffs and precipitous slopes of huge boulders, which early dawn found our party engaged in scaling. Several hours of exceedingly hard climbing followed, and occasionally finding ourselves debarr'd from further progress by insurmountable difficulties, a movement to the rear was necessary in order to find a new trail. Finally, all difficulties overcome, we stood, a panting crowd, on the topmost ridge, 9,000 feet in mid-air, feasting our eyes on the full magnificence of the scene, occasional glimpses of which we had caught as we drew near the top. The San Geronimo Pass lay below, a vast chasm between ourselves and Mt. San Bernardino and its consort, the old "Gray Back," with an altitude of over 12,000 feet, looked the very home of glaciers and snow, its round smooth back showing bleak and bare. Out through the Pass to the eastward, the Colorado desert stretched in interminable desolation, a vast sea like ruin.

We turn to a more agreeable scene. Reposing between the Sierra Madras, which forms a huge protecting wall on the north, and the hazy, picturesque coast range on the south, the Santa Anna Valley presents a scene of loveliness. Over the coast range, apparently leaving the base of Mt. St. Jago, appears the Pacific, ninety miles distant. With a good glass, vessels can plainly be discerned through the dry, electric atmosphere. As we were to break camp that day, our time was limited. Reluctantly turning away from this panorama, a few hours later found us at our rendezvous, packed and heavily laden with our spoils, starting out with an eight-miles tramp confronting us ere we reached our lower camp.

But all things come to an end, and finally the welcome sight of T.'s cabin, dwarfed by the lofty shadowy pines which overhung it, and seeming almost Lilliputian in size, met our view. We made this our headquarters for several days, piloted by T., the veteran hunter, on various excursions, through the winding valleys, under immense pines, oaks and cedars, over a clean carpet of grass and ferns, the latter just turning and rivaling our New England autumn leaves in their grand old mountain park. A ride of forty miles through the beautiful valleys of San Jacinto and Kaweah and we entered Riverside just as the sun was sinking behind Mt. St. Jago and Temescal, hazy and blue in the West.

MESSRS. TIFFANY & CO., UNION SQUARE, NEW YORK City, have made extensive preparations for the approaching HOLIDAYS.

Their Stock of Diamonds, Watches, Jewelry, Silverware, Bronzes, Pottery, Stationery and Fancy Articles, is the largest and most varied in this country, and includes novelties from abroad and choice goods of their own manufacture, not to be found elsewhere.

A special department has been organized for sending goods to persons at a distance from New York, and any one known to the house, or naming satisfactory references, can have careful selections sent for inspection.

They have lately published a little pamphlet containing a condensed account of each department, and lists of articles appropriate for presents, which they will send to any address on request.

Piper Heidsieck AND PIPER "SEC."



For Sale Everywhere. JOHN OSBORN, SON & CO., 46 Beaver street, New York, and 44 St. Sacramento street, Montreal, GENERAL AGENTS.

For Sale. SECOND-HAND.—A very fine Tolley breech loader with two sets of barrels fitted to same stock; one pair 10 bore Damascus and very close shooting, other pair laminated steel and cylinder bore; weight, 9 lbs. and 9 1/2 lbs. This gun was made to order for the owner, and is very superior in every respect. Can be examined at gun store of HENRY C. SQUIRES, 1 Cortlandt street, N. Y.

CITY AND COUNTRY PROPERTY bought, sold and exchanged. C. S. PECK, 8 West Twenty-fifth street, New York. Sept 27 11.

FOR SALE, CHEAP.—One No. 2 Sharps' Creed-moor Rifle, as good as new. Price \$70. Shoots well. For particulars address FORESTER, care FOREST AND STREAM. Dec 11.

ANGLING & FISHING BOOKS. The Messrs. Levist, Auctioneers, Decem 6 and 6, at Clifton Hall, Astor Place, Now on exhibition; catalogues ready.

The Fishing Library of the late Samuel T. Tisdale, Esq. Angling and other sporting works, including the famous works of Walton and Cotton, Scorpe, Blakey, Bainbridge, Frank Forester, Steadart, Tassel, etc. Dec 11.

Sportsman's Gazetteer

AND GENERAL GUIDE, BY CHARLES HALLOCK, Editor "Forest and Stream and Tod and Gun."

896 pp., Price \$3. Tinted Paper, \$4; half-bound mo., \$5.

A complete Dictionary for Sportsmen. Everybody wants it that has a dog, gun or fishing rod. A complete description of all kinds of Game, Fish, etc. Field Sports, Woodcraft, Angling, Fly Tying, Dogs, Dog Breeding, Diseases and Treatment, Boating and Boat-building. Several thousand localities where game and fish are to be found.

Nothing of the kind ever before published worth ten times the price. PUBLISHED BY FOREST & STREAM PUBLISHING CO. 111 Fulton street, New York.

Wanted.

WANTED—An offer for a M-11 duck gun; line bore; length of barrels 36 inches; muzzle loader. Made for present owner; cost \$300. Warranted in every particular. Can be seen at Genez, Chambers St. N. Y. Address, Wesley Smith, 54 St. Marks Place, New York. Nov 29 4t

WANTED a situation by a lad of fourteen in a store or office in New York or Brooklyn. Address S. S., office of FOREST AND STREAM AND TOD AND GUN, where references can be had. Dec 6 1t

WANTED—A second hand Johnson Health Lift. Must be in good order, and sold cheap. Address LOCK BOX 56, Westchester, Pa. Dec 2 2t

Guns, Rifles, Etc.

W. W. Greener's CHOKE-BORE GUNS, Tried on Game in America.

Supplied by H. C. Squires, 1 Cortlandt St. NEW YORK. See the Following Testimonials.

SIR—It is a pleasure for me to inform you of my high appreciation of the M-11 Greener breech-loader purchased of you last winter. I consider choke-boring, if skillfully done, as the greatest improvement in fowling-pieces since the introduction of the percussion cap. It gives the maker complete control of the pattern, and greatly increases penetration. To prove this, I will give you the performances of this gun. The 36-inch 16-gauge barrels, charged with 4 1/2 drachms of powder and 1 1/2 oz. No. 6 Edgish chilled shot, gave patterns ranging from 25 to 35 pellets in 36-inch circle at 40 yards. The same charge of powder and 1 1/2 oz. No. 4 American shot gives 19 to 17 1/2 pellets with penetration which kills ducks at 50 to 75 yards like a stroke of lightning. It is a characteristic of the choke-bore to show its greatest superiority in the large sized shot. What I am about to say will perhaps surprise you as much as the performance surprised me. On trial of the 12-gauge 25-inch modified choke-bore barrels, with 3 1/2 drachms of powder and 1 1/2 oz. of shot, I got about the same pattern and spread of shot at 25 yards as with the full choke 16-gauge barrels at 40 yards, with tremendous penetration. This is just the performance required of a gun for thick cover, in which you generally find ruffed grouse, woodcock and quail, these birds being killed, with few exceptions, at from 15 to 25 yards.

COL JOHN BODINE. DEAR SIR—The guns arrived all right. We think these last guns you have sent us will place the Greener guns ahead of any other in this country. As guns of other makers don't compare in shooting qualities with them. We unhesitatingly recommend the Greener as far superior to any gun of foreign or domestic manufacture that we have seen. We say this after seeing and using a great deal of all the celebrated makers. CARLISLE JONES & CO., SELMA, Ala.

The Greener gun presented by Mr. Squires for the best pointer, and awarded to me is a close, clean, hard hitter, killing its game as very few other guns. It is the second Greener that I have owned, and they cannot be beaten. I am with them at the trap or in the field. S. B. DILLAY, LAKE CITY, Minn.

SIR—I have a pair of W. W. Greeners breech-loaders (ought of H. C. Squires, of New York) modified choke-bore. I have had an opportunity to test these weapons on birds heavily feathered, and where great penetration was essential to success. I have repeatedly made long shots, always killing the game clean. At a target both guns made a very even distribution of the shot, with extreme penetration. W. C. FIELD.

SIR—The Greener breech-loader I purchased of you is very fine indeed, and gives great satisfaction. WALTER F. ROBERT DENY, STON, W. W. GREENER, St. Mary's Works, Birmingham, England.

English Sporting Gunpowder. CURTIS & HARVEY'S DIAMOND GRAIN.

Nos. 2, 3, 4, 5, 7 and 8. Superior Rifle, Field Rifle, and Col. Hawker's Dracking. W. STITT, 51 Cedar street, N. Y. Agent for the United States.

THE WALKING TRICK MOUSE.—An amusing, cur-hle India Rubber Toy. Get one, and have a good square laugh. Samples by mail 15 cts. Agents wanted. E. S. NYDAM, 211 West 11th Street, Brooklyn, (E. D.) Long Island, New York.

THE NEW "SCOTT" 9-SHOT REPEATING RIFLE.

The strongest, most accurate, simplest and quickest firing magazine rifle ever made. Completely fills the long-felt want among Hunters and Plainsmen for a reasonable priced long-range repeater. This rifle is made of the very best material throughout, finely rifled barrel, and locks of best English STEEL, wrought Iron frame, and black walnut stock mounted on a lock, carefully case-hardened and blued. Everything has been done to make this an accurate and substantial weapon, with no fancy price attached for useless engraving or plating. THIS RIFLE IS MADE FOR HUNT AND NOT FOR SHOW, and is as good as any rifle ever made, and at less than one third their price. Takes regular copper-rim fire cartridge, same kind as Winchester, Spencer, or Sharp, which are sold every where. Can be used as rapidly as a Winchester, and is equally accurate to 1000 yards. Every rifle must be open front sight, elevating rear sight, packed in wooden case with cleaning tools, etc., \$15. No. 2 for 9 shots at 800 yards, mounted use, 25-cm. barrel, 9-shot, otherwise same as No. 1, \$12.50. We make but these two styles, all the same finish and caliber. Sent by express, collect. Price of rifle, \$15.00. Remit by P. O. Money Order, Registered Letter, or Draft on Boston or New York. H. E. VILBANKS, 277 Broadway, New York. This Rifle carries its magazine IN THE STOCK, and not under the barrel, where every discharge lightens the weight and alters the "hang" of the gun. 27-Cent Cords at Boston, Nov. 27. 47-Whipped dog carries its magazine IN THE STOCK. In writing, please say when you saw this advertisement.

F. BOOSS & BROTHER.

ESTABLISHED 1838. THE ONLY FUR HOUSE in this city who received at the Centennial Exhibition the HIGHEST AWARD AND DIPLOMA for SEAL SACQUIS, FANCY FURS, ROBES, ETC. Our prices this season are 25 PER CENT. LOWER THAN LAST YEAR'S.

449 Broadway and 26 Mercer St., New York. ESTABLISHED IN 1837.

Consult your interest by sending for our revised and reduced prices.

Excelsior LATEST IMPROVEMENT. Saw, thirty laminated Feet Sawing Patterns and prepared Wood, to the value of \$4. A new device for lightening Saw, Power Drilling attachment, Wrench, Oil Cup and Screw Driver. Speed, 80 strokes per minute. Saws, 1 1/2-inch thick. Price, complete, cash and delivery on board cars or at Express office, \$12. Saw only, without attachments, \$9.

SMALL STEAM ENGINES, With Copper Boiler, to drive Light Lathes, scroll Saws, etc. All sizes from 1 1/2 up to a horse power; either plain castings, partly finished, or complete, ready for use.

The "Scientific American" of June 10, 1875, says of the above, in an extended Editorial, introducing our manufactures to the public: "It can turn wringers, churns, washing machines, oil or corn freezers, run coffee mills, pump water through a house, actuate foot lathes, scroll saws or light box machinery, run knitting or sewing machines, turn a griddle or any other work ventilating or hand thrashing machine cutters, meat or feed choppers for sausage machines, drive small blowers for pneumatic dispatch tubes in a building, or for a blacksmith's forge, or compress air or work an air pump on a small scale as a laboratory. These are a few only of the purposes to which it can be applied."

Also Engines and Boilers capable of propelling 15 to 18 inches. The boats have keel, stem, with rudder and tiller, row locks and oars. These wishing a pleasure boat will find

driving boats from 12 to 25 feet long, 4 1/2 to 6 1/2 feet beam, with drift of water stern and rudder post of oak, pine or mahogany, copper fastened throughout, and seats all round the boat, lockers and coal bunkers, and have two coats of paint, these the safest and fastest, as they can be made to attain a speed of from 6 to 16 miles per hour. They are adapted to a great variety of uses, such as Excursion, Shooting, Fishing or Pic-Nic Parties, for travelers, voyagers, boatmen and tourists, and especially for fishing, to their light draft of water for exploring expeditions and surveying parties. The Engine and Boiler can be easily detached from the boat, and is then available for Agricultural, Mechanical, Commercial or Domestic requirements for the use of Amateurs, when power is needed for running light machinery.

Price of 20 foot boat, complete, \$425.00. Price of Engine and Boiler, without boat, including driving pulley, \$75.00.

Illustrated Catalogue containing One Hundred Scroll Work Designs mailed to any address free on receipt of Stamp. GEORGE PARR, BUFFALO, N. Y., U. S. A.

PRICE, BOXED, WITH DARTS, SLUGS, TARGETS, &c., \$10. FULL NICKEL PLATE \$12.

A FINE HOLIDAY PRESENT. THE NEW IMPROVED AIR RIFLE. Especially Adapted for Target Practice. SPLENDID FOR SHOOTING SMALL GAME and touching up CATS OR DOGS. Just the thing for Taxidermists to collect specimens. There is no report or danger attending its use, or any auxiliaries required to operate it. It can be loaded with ease and rapidity. It is extremely simple, and has no delicate parts to get out of order or wear out. For sale by the Trade generally. Sent upon receipt of price or C. O. D. SEND FOR CIRCULAR. H. M. QUACKENBUSH, Patentee and Mfr, Herkimer, N. Y.

Hart's Sportsman's Favorite Metallic Shells. FOR BREECH-LOADING SHOT GUNS.

These Shells are easily loaded, and the caps easily extracted from inside. Head solid and much thicker than any shell now made, giving a solid seat for cone or anvil, which prevents it from driving through or springing away, thereby causing miss-fires. The cone is made of nickel, and fastened solid in its place. No other rusts nor corrodes fast, like movable anvil made from steel. The Nickel Cone also prevents misfires when a cap has been left on shell for a few days, which is liable to occur either in steel or iron. These Shells are finely finished, and made a 1/2 length ordered, from 2 1/2 to 3 1/2 inches. Shells and Loaders and Descriptive Price-Lists can be obtained from all the leading Sportsmen's Houses through the country. GEO. E. HART & Co., Newark, N. J. FROM CAPTAIN BOGARDS, CHAMPION WING-SHOT OF AMERICA. Messrs. GEORGE E. HART & Co.—Gentlemen: I The fifty Shells I received from you today suit me better than any I have ever used. They are stronger and better in every respect, and I shall use them in all my shooting hereafter. Yours truly, A. H. BOGARDS.

SHELLEY'S PRAIRIE OIL.

The Great Natural Remedy FOR ACUTE AND INFLAMMATORY RHEUMATISM, GOUT, SCIATICA, LUMBAGO, and Severe Cases of Bodily Pain. AN INFALLIBLE CURE. Innumerable Testimonials from prominent citizens as to the wonderful curative properties of Prairie Oil will be furnished on application. PRICE FIFTY CENTS, ONE AND TWO DOLLARS PER BOTTLE. SENT BY EXPRESS ON RECEIPT OF PRICE. Manufactured by "THE PRAIRIE OIL CO.," 132 Nassau St., N. Y. AND SOLD BY DRUGGISTS GENERALLY. (P. O. BOX 2,997.)

"About two years ago I was first attacked with Rheumatoid Gout, and after intense suffering and great expense from medicine and doctors' bills, without obtaining relief, I procured Prairie Oil, and in less than three days after the first application was enabled to walk to my office, a distance of three miles, although previously confined to my room for nearly five weeks. From that time to the present I have never been without the oil, nor have I ever applied it in vain, notwithstanding so lengthened a trial. My family use it for any of the complaints it is intended for, and I can consider it invaluable. H. E. VILBANKS. Mr. M. PADOV, tobacco merchant, 229 Fulton street, Brooklyn, lost the use of his right leg by Sciatica, says the Proprietor of Nihil's Garden, New York: "PRAIRIE OIL gave me relief from inflammatory rheumatism after first application; and after the third I had no further use for my cane." Mr. KENWARD PHIP, Dramatic Editor Brooklyn Eagle, Brooklyn, was unable to walk without the aid of crutches, owing to a severe attack of lichenism. After the third application of PRAIRIE OIL the crutches were thrown aside, he having no further use for them.

THE NEW "SCOTT" 9-SHOT REPEATING RIFLE.

The strongest, most accurate, simplest and quickest firing magazine rifle ever made. Completely fills the long-felt want among Hunters and Plainsmen for a reasonable priced long-range repeater. This rifle is made of the very best material throughout, finely rifled barrel, and locks of best English STEEL, wrought Iron frame, and black walnut stock mounted on a lock, carefully case-hardened and blued. Everything has been done to make this an accurate and substantial weapon, with no fancy price attached for useless engraving or plating. THIS RIFLE IS MADE FOR HUNT AND NOT FOR SHOW, and is as good as any rifle ever made, and at less than one third their price. Takes regular copper-rim fire cartridge, same kind as Winchester, Spencer, or Sharp, which are sold every where. Can be used as rapidly as a Winchester, and is equally accurate to 1000 yards. Every rifle must be open front sight, elevating rear sight, packed in wooden case with cleaning tools, etc., \$15. No. 2 for 9 shots at 800 yards, mounted use, 25-cm. barrel, 9-shot, otherwise same as No. 1, \$12.50. We make but these two styles, all the same finish and caliber. Sent by express, collect. Price of rifle, \$15.00. Remit by P. O. Money Order, Registered Letter, or Draft on Boston or New York. H. E. VILBANKS, 277 Broadway, New York. This Rifle carries its magazine IN THE STOCK, and not under the barrel, where every discharge lightens the weight and alters the "hang" of the gun. 27-Cent Cords at Boston, Nov. 27. 47-Whipped dog carries its magazine IN THE STOCK. In writing, please say when you saw this advertisement.

# NICHOLS & LEFEVER, MAKERS OF FINE GUNS

CATALOGUES SENT ON APPLICATION.

SYRACUSE, N. Y.

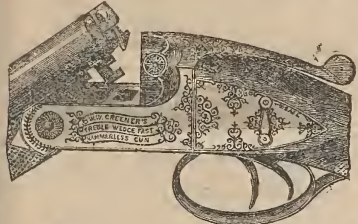
## ACME CLUB SKATE.



The only reliable Self-Fastening Skate ever invented. Can be instantly and firmly attached to any boot. Requires no heel plates, straps, nor laces. Price per pair \$3. Nickel Plated \$6. Sent by Mail, post-paid, on receipt of price, or, by express C. O. D. Send stamp for illustrated price-list of Skates, Revolvers, Novelties and other Sportsmen's Goods. Trade supplied by

## W. W. Greener's Patent Wedge Fast, Hammerless Breech-Loader.

THE GUN OF THE FUTURE.



It has already made its mark in Great Britain. The self-cocking is effected by the raising of the breech ends of the barrels for loading, and works smoothly and without requiring much force to open the gun and cock the locks. There is a safety bolt at the side which answers for half cock. The mechanism of this action is exceedingly strong and simple, and is better suited for hard work than any other gun in use.

W. W. GREENER winner of the great London Gun Trials of 1875 and 1877, beating 121 guns by all the best makers of London, Birmingham, Edinburgh and Dublin.

These guns are warranted to kill game at 100 yards. Read W. W. GREENER'S book on Choke-Bore Guns and How to Load, published by Messrs. Cassell, Pater & Galpin, New York.

Address, ST. MARY'S WORKS, Birmingham and 68 Haymarket, London.

## Sportsmen, Attention!



## Keep Your Feet Dry.

The only premium awarded by the Centennial Commission, Philadelphia, 1876, for Alligator Waterproof Boots and Shoes.

Goods sent to all parts of the U. S., C. O. D.

Catalogues containing full instructions for self-measurement sent free on application.

503 Broadway, New York.

## NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

MADE OF BROWN VELVETEEN.

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$35; Vest, \$6.50. Also the best brown cutaway pants at \$10 per pair. I make only the one grade, as the cheapest goods do not turn brains and will not give satisfaction.

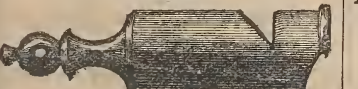
Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen's goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is the Best Yet. Coat, \$5.50. For full suit, \$14.00. I also make the sleeveless Coat, Vest with sleeves if desired. Rules for measurement and samples sent upon application.

F. L. SHELDON, Rahway, N. J.

For Sale by Dealers in GUNS and SPORTSMEN'S SUPPLIES.

## The Kennel.

### MARSTERS' IMPROVED



## Horn Dog Whistle.

Cannot be Lost from the Coat. ALWAYS IN THE SAME PLACE WHEN WANTED.

Sample by mail, 50 cents. Trade supplied.

J. F. MARSTERS, 125 NASSAU ST., N. Y., AND 55 COURT STREET, BROOKLYN.

FOR Irish and native setters, dogs and bitches of all ages, broken and unbroken, address E. J. ROBBINS, Wethersfield, Conn. Oct 25

## The Kennel.

### SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped, F. O. de LUZE, 18 South William Street, N. Y., Sole Agent. For sale in cases of 112 lbs. Special terms to dealers.

## The Kennel.

### ST. LOUIS BENCH SHOW

AND SPORTSMENS ASSOCIATION, St. Louis, Mo.

The first annual Bench Show and Exhibition of the above Association will be held in St. Louis, Mo., February 19th, 20th, 21st and 22d, 1878.

Cash prizes, paid in full..... \$3,000 Special prizes, value..... \$2,000 Cash prizes for Kennels of Eng. (sb, Irish and Gordon Setters and Pointers, \$100 each. All Setters and Pointers have 1st, 2d and 3d prizes, cash, in open classes, \$50, \$20 and \$10. All Setters and Pointers in free-for-all classes have cash prizes of \$50 each.

Officers of the Association—President, E. Hayden Manager American Express Co.; Vice-President, Jos. A. Wherry, wholesale Boots and Shoes; Secretary, John W. Munson; Treasurer, H. S. Brown, of Brown & Hilder, gun dealers. Directors.—E. C. Sterling, President Hydraulic Press Brick Co.; C. J. Clark, of Clark & Keunett, metal dealers; W. L. Scott, Secretary of Belcher's Sugar Refinery.

For catalogues and information address JOHN W. MUNSON, Secretary, St. Louis, Mo. Nov 29

## BALLARD'S FLEA KILLER!

FOR THE DESTRUCTION OF FLEAS On Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.

NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.

Price 50 Cents per Package.

Will be sent postage paid on receipt of price-Proprietors, LAZELL, MARSH & GARDINER, 1719 11 10 GOLD STREET, NEW YORK.

## Fleas! Fleas! Worms! Worms!

STEADMAN'S FLEA POWDER FOR DOGS.

A Bane to Fleas—A Boon to Dogs.

This Powder is guaranteed to kill fleas on dogs or any other animal, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.

Price 50 cents by mail, Postpaid

## ARECA NUT FOR WORMS IN DOGS

A CERTAIN REMEDY.

Put up in boxes containing a dozen powders, with full directions for use.

Price 50 cents per Box by mail. Both the above are recommended by ROD AND GUN and FOREST AND STREAM.

W. HOLBERTON, oct 12 102 NASSAU STREET.

## EDINA KENNEL.

JESSE SHERWOOD, Proprietor, Edina, Knox County, Mo., breeder and importer of Sporting Dogs, Pointers, setters, spaniels, fox and beagle hounds. "Sancho," Imp. Pointer, stud dog; fee, \$35. See English K. C. S. B., No. 1,905. He is a grandson of the celebrated "Hamlet," No. 386. This dog "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874), three here.

## DOGS.

DOCTOR HENRY GARDNER, No. 146 West Thirtieth street, New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ag 7

FOR SALE—A handsome setter. A cross between the Field Trial and E. Han Allan stock. This dog is well broken on quail, woodcock and ruffed grouse. Has a good nose; is staunch and obedient. Address, P. O. Box 1183, Norwich, Conn. Nov. 29

FOR YOUNG COCKER SPANIEL STOCK FROM the choicest breeds. acquire of M. P. MCKOON, dec28-17 Franklin, Del. Co., N. Y.

FOR SALE, when eight weeks old, six puppies out of my blue belton setter Mell, by Bob Boy. They are black and white. Two of them are black white and tan, and are almost perfect images of their sire. For particulars, address L. F. WHITMAN, 5 City Hall, Detroit, Mich. jec25

FULL-BLOODED—Two Irish setter bitches, four months. Sire of pups, Don, imported from J. C. Cropper, of Limerick, Ireland, by C. H. Turner, Sec. Nat. Kennel Club, St. Louis, Mo.; dam, Countess, by Radman's Dash, One Gordon bitch, eighteen months old; hunted this fall, staunch on quail and very fast, with good nose; will make a good one. One Gordon bitch eight months old. Full pedigree given with pups. H. B. VANDERSMITH, Chestnut St., Pa. No. 22

## The Kennel.

FOR SALE—One Gordon Setter pup, 5 months old. For pedigree and full particulars address A. D. BOAS, Carlisle, Pa. Dec 6

FOR SALE—Four splendid deep red Irish Setter pups, by imported champion setter Joe, and out of Bess by Pat, out of Midy, both imported all red Irish setter. Address ROSACE SMITH, No. 33 Park Row, N. Y.

FOR SALE—A fallow red Dachsund bitch, two years old; also a highly bred pointer, 20 months old, thoroughly broke, inquire W. H. E. GERTLING, 4063d av. Dec 11

FOR SALE—Three thoroughbred cocker spaniel pups, 2 dogs and 1 bitch, 6 months old, black and white, with black points. Price \$10 apiece, delivered free at my risk. Address C. S., No. 44 4th av., Pittsburg, Pa. Dec 6

ITALIAN GREYHOUNDS FOR SALE—A very beautiful Italian Greyhound stud, four years old is offered for sale at a reasonable price. Also 4 of her pups, 5 weeks old, all excellent. Address ROBERT J. K., care Editor FOREST AND STREAM. Dec 11

WANTED—A well bred setter, thoroughly broken on woodcock, snipe and quail. Address for one week, J. H. S., Room 111, Buckingham Hotel, City. Dec 11

TWO IMPORTED ENGLISH SETTERS FOR SALE—An English gentleman desires to sell two first rate setters, brought over by him last fall. Both very well bred, and one of them of prize blood. His having no further use for them is the only reason for selling. Price \$12 each. Address ROBERT WALKER, Dauphin, Dauphin Co., Pa. Dec 11

FOR SALE—Red Irish Setter pups, dam Belle II, sire Mack, he by P. Mack out of Carrie. WALTER HUMPHREYS, 135 Furman st., Brooklyn, N. Y. Dec 11

FOR SALE—Cocker Spaniel pups, by Witch, winner of first prize at N. Y. Bench Show, stock guaranteed. Price \$12 each. Address ROBERT WALKER, Franklin, Del. Co., N. Y. Dec 11

## Hotels and Resorts for Sportsmen.

### HALSEY HOUSE, ATLANTICVILLE, LONG ISLAND,

is nearer New York City than any house bordering on Shinnecock Bay. Is as near, and has as good shooting grounds, and as experienced attendants (with live game and other decoys, batteries, etc., always on hand); nearer the station; the largest and the best kept house in the bay. L. I. RR. to Atlanticville Station, Fare, \$2. Stage meets all trains. W. F. HALSEY, Owner and Proprietor. Atlanticville, L. I., Oct. 30, 1877. Oct 25

### Metropolitan Hotel, WASHINGTON, D. C.

### Carrollton Hotel, BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.

### THE METROPOLITAN

is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and re-furnished throughout. The cuisine is perfect; the service regular, and charges moderate.

### R. B. COLEMAN & CO.

## Wild Fowl Shooting.

### SPRINGVILLE HOUSE OR SPORTSMEN'S RESORT, SHINNECOCK BAY, L. I.

By a practical gunner and an old bayman. Has always on hand the best of boats, batteries, etc., with the largest rig of framed wood-zee decoys on the coast. Special attention given by himself to his guests, and satisfaction guaranteed. Address WM. N. LANE, Good Ground, L. I. Nov 11

### Duck Shooting at Van Slycks, CERRITUCK CO., N. C.

Sportsmen furnished with Board, Skiffs and Stool Ducks. Good Partridge and snipe shooting. Steamer Cygnet leaves Norfolk and runs direct to the above on Mondays and Thursdays at 6:30 A. M. Nov 24

### Land-locked Salmon Spawn.

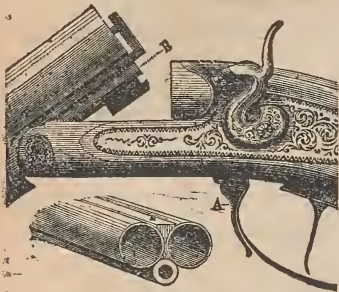
The DOBBS CLUB, on the Syracusan Lake, in Maine, will dispose of from 5,000 to 10,000 LAND-LOCKED SALMON SPAWN if application is seasonably made, before they are too far developed to bear transportation. Many of the females from which this spawn was taken weighed 4 lbs., and the millets quite as large. Price, \$5 per thousand, delivered to Express at Winn, Maine. Apply to CURRIER DOWNER, 28 State St., Boston, Mass. Nov 24

### PERFEZIONE strengthens, enlarges and develops any part of the body, \$1. Errors Debility Pills, \$1; Invigorating Pills, \$1 per dozen. Address DR. VAN HOLM, 131 Court st., Boston, Mass. Dec 17





Guns, Rifles, Etc.



**Breech-Loading Guns.**

(TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

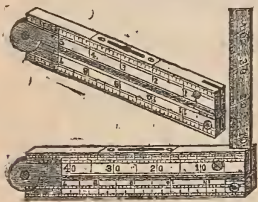
PRICES.

- Three barrel, \$75 to \$250.
- Double barrel shot guns.
- Damascus barrel, \$50 to \$200.
- Twist barrel, \$35.

SEND FOR NEW CIRCULAR.

W. H. BAKER & CO.,  
Syracuse, N. Y.

E. THOMAS, JR.,  
GUNS, PISTOLS, SPORTING GOODS,  
174 South Clark Street, Chicago, Ill.



**Foot Rule, Level, Square, Plumb and  
Inclinometer.**

It may be used for leveling stands for rest shooting, and gives at once the degree of elevation and pitch to the foot. As a specimen of workmanship, it is faultless, and is strong and durable. So great is our confidence in its merits that we hereby agree to refund its cost in every case where perfect satisfaction is not given. Sent by mail on receipt of \$2.50.

STEPHENS & CO., Kington, Conn. Nov 1 by

Fishing Tackle.

**H. L. LEONARD,**  
BANGOR, MAINE,

Manufacturer of every variety of  
FINE RODS for SALMON, BASS and TROUT  
FISHING.

**Split Bamboo Rods a Specialty**

Great reduction in prices. Trout Rods, full mounted, \$30, formerly \$50; other rods in proportion. Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof ferrule," and warranted against imperfections in material and workmanship. Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancewood. MADE TO ORDER.

I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods. Also manufacturer of Patent Reels for Salmon and Trout fishing. The lightest, strongest, and handsomest Reels ever made.

Full line of FISHING TACKLE always on hand.

Send for circular and price list.

**Lessons in Fly Tying.**

I will guarantee to teach any gentleman the art of dressing flies in a few lessons. Address

JOHN HAILY, 320 Henry Street, New York City.

Flies tied to order from any pattern.

**Amusements, Etc.**

**Zoological Garden.**

FAIRMOUNT PARK, PHILADELPHIA.  
Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 17

THE GREAT NEW YORK AQUARIUM, Broadway and 35th Street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 bell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments.

**DON'T PASS THIS BY.**

STODDARD'S CARTRIDGE-LOADING IMPLEMENT, COMBINING ALL OTHER TOOLS AND FOR ALL SHELLS.

Length, 4 1/2 inches; weight, 10 ounces, and nickel-plated. Price, \$6.

Recommended by FOREST AND STREAM AND ROD AND GUN, Boone, Rescapper, Will Wildwood, Ira A. Payne, and others. Liberal discount to the trade. Send postal order to

C. J. STODDARD & CO.,

Lock box 192, Washington, D. C.

**IRA A. PAINE'S  
CHAMPION FILLED GLASS BALL.**

PATENTED OCTOBER 23.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the services of that well-known sportsman, IRA A. PAINE, to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell.

We can give the sportsmen of America no better proof of the superiority of these balls than that W. & C. Scott & Sons, after examining every ball in the market, have ordered 2,000 to be sent to England. In no instance where it has been exhibited has it failed to take the place of all others.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300 and boxes of 500. Send for price list. Special inducements to the trade.

HEADQUARTERS BOHEMIAN GLASS WORKS, 214 Pearl Street, N. Y.



**Bogardus' Patent Rough Glass Balls  
and Glass Ball Traps.**

These Traps are the only ones that give satisfaction, as they are simple of construction, easily set, and not liable to get out of order, and they throw the ball in a manner that more closely resembles the flight of a bird than any other trap in the market. The Patent Rough Glass Balls are made of uniform weight and thickness, and have a corrugated surface that strengthens the ball for shipment to any part of the country, prevents the glancing of shot, and thereby insures the breaking of the ball when hit.

HEADQUARTERS FOR BALLS, HAGGERTY BROS., 10 Platt Street.

W. & C. SCOTT & SONS have ordered 10,000 balls and 24 traps to be sent to England.

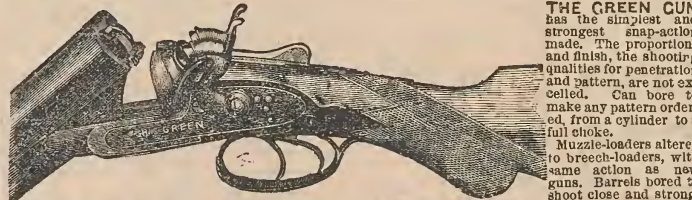
FOR TRAPS, GEO. E. HART & CO., Newark, N. J.

Dec 6 11

**Match Against Time--Skill and Endurance.**

GILMORE'S GARDEN, NEW YORK CITY, JANUARY 3, 1873.

CAPTAIN A. H. BOGARDUS, Champion Wing Shot of the World, has made a match to break 5,000 Glass Balls in 500 consecutive minutes, loading his own gun. Balls to be sprung from his patent traps. Shooting to commence at 3 o'clock P. M.



Price \$45. Re-boring and repairing breech-loading shot-guns done promptly and in the very best manner. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y. Aug 30 11

THE GREEN GUN has the simplest and strongest snap-action made. The proportions and finish, the shooting qualities for penetration and pattern, are not excelled. Can bore to make any pattern ordered, from a cylinder to a full choke.

Muzzle-loaders altered to breech-loaders, with same action as new guns. Barrels bored to shoot close and strong.

Sportsmen's Goods.

W. H. HOLABIRD,  
Manufacturer of

**Specialties in Clothing  
FOR SPORTSMEN.**

Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent by mail, post-paid, \$5.

Holabird's New Game Bag; weighs 13 ounces. The most convenient and coolest garment ever offered to sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2.

Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style.

Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods.

July 12 11



**JEWELERS AND SILVERSMITHS,**  
HARTFORD, CONNECTICUT,

DEALERS IN  
Diamonds, Silverware, Watches, Jewelry, etc.

IMPORTERS OF  
FRENCH, GERMAN, AND ENGLISH FANCY GOODS.

SPECIAL ATTENTION GIVEN TO THE MANUFACTURE OF APPROPRIATE DESIGNS FOR

Shooting, Boating, Racing, and other Prizes.

OUR

**ILLUSTRATED CATALOGUE,**

CONTAINING

Three Dozen Wood Cuts of the above and other articles

in our line, and including the

GAME LAWS OF CONNECTICUT.

Mailed to any Address, on receipt of 50 CENTS.



GOOD'S OIL TANNED  
MOCCASINS.  
The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine article. Send for illustrated circular. MARTIN S HUTCHINGS, P. O. Box 363, Dover, N. H. (Successor to Frank Good.)

W. HOLBERTON, 102 Nassau St., N. Y., Agent.

**THE UNITED STATES CARTRIDGE COMPANY,**  
LOWELL, MASS.

Manufacturers of the  
CENTRAL FIRE, SOLID HEAD,  
BRASS SHELL, RE-LOADING CARTRIDGE,

Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.

Nov 17 11

**Amusements, Etc.**

**Zoological Garden.**

FAIRMOUNT PARK, PHILADELPHIA.  
Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 17

THE GREAT NEW YORK AQUARIUM, Broadway and 35th Street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 bell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments.

Flies tied to order from any pattern.

**Amusements, Etc.**

**Zoological Garden.**

FAIRMOUNT PARK, PHILADELPHIA.  
Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 17

THE GREAT NEW YORK AQUARIUM, Broadway and 35th Street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 bell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments.

**Union Square Hotel,**

UNION SQUARE, Corner 15th Street, New York.

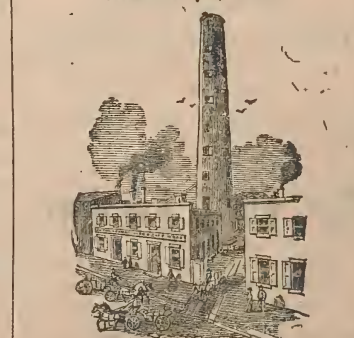
A. J. DAM & SONS, Proprietors.

**C. M. BRENNAN,**

OLD KENTUCKY BOURBON & MONONGAHELA,

40 South Clark Street, Chicago.

Founded July 4, 1808.



Thos. W. Sparks,

**Shot & Bar Lead**

MANUFACTURER.

Office 121 Walnut Street Philadelphia.

**Sportsmen's  
Headquarters**

FOR WINES, LIQUORS AND CIGARS.

Outfits for yachting. The camp or field a specialty. Olives by the case, gallon or bottle.

THOS. LYNCH, IMPORTER,

99 NASSAU ST., Bennett Building, New York.

Sept 17 11

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year,  
Ten Cents a Copy.

NEW YORK, THURSDAY, DECEMBER 13, 1877.

Volume 9.—No. 19.  
No. 111 Fulton St., N. Y.

For Forest and Stream and Rod and Gun.

### AN UNKNOWN WRECK IN LABRADOR.

HERE, on the lonely Labrador,  
Half buried in the shelly sands,  
Deserted on the idle shore,  
The wreck of some lost vessel stands.  
Its iron stanchions, ribs of oak  
And solid decks are rent and torn;  
Its sides are shatter'd by the stroke  
Of surges, seam'd and scarr'd and worn!  
Who shall the awful tale relate  
Of the dead crew, their names and fate?

Here in the elemental gloom,  
The hapless vessel met her doom;  
Helpless on Labrador's bleak coast,  
The rempest-beaten ship was tost.  
In vain, amid the grinding ice,  
Beneath the iceberg's precipice,  
By jagged reef and sunken shoal  
Where white the frothy billows roll,  
In midnight gloom, in frantic gale,  
The mariners would spread the sail,  
But iron rocks and cruel wave  
Whelm'd them in unrecorded grave!

The brooding midnight hung its cloud  
Of gloom above them like a shroud;  
Only some evanescent gleam  
Fell haply from some pale moonbeam;  
No sun to pour its royal blaze,  
No star to glitter with its rays,  
To pierce the thick fogs and the haze,  
That ever, like a sable pall,  
Athwart the dreary ocean fall.

The next morn came. Thro' falling steet  
An Indian comes with wandering feet,  
Beholds agast the fatal wreck,  
The splinter'd mast, the broken deck,  
And stretched along the beach outspread,  
The drifting corpses of the dead!

Year after year its dust will strow  
About them on that desert shore;  
Year after year, the ebb and flow  
Of tides shall o'er their relics pour,  
But none may know the hapless tale  
Of those who perish'd in that gale.

ISAAC McLELLAN.

For Forest and Stream and Rod and Gun.

### Etchings from the East Coast of Florida.

BY THOMAS SEDGWICK STEELE.

(Continued.)

TITUSVILLE, on Indian River, contains one church and seven houses, and to the long wharf, which extended out into the water some distance, were moored a number of sailing craft. In addition to the regular business of the saw-mill, located here, beautiful walking-sticks of crab-tree, mangrove and other woods, are turned for the curiosity shops which abound at all the ports on the St. John's River. Colonel Titus, the celebrated, from whom the town takes its name, will be long remembered "For ways that are dark," as concerned in the past outrages of "bleeding Kansas." From that State he migrated to this far-off land, and was engaged by an English company to oversee the canning and shipping of turtles and oysters, for which this river is noted. Within a year he managed to break the company, but retired rich himself, and with his gains now luxuriates in ease and comfort. I was told he once was what is called "a handsome man"—tall, erect, and of fine carriage, so that even on Broadway people turned to look at him as he passed. But now he is very cross looking, with florid complexion, and heavy gray hair and beard, but the twinkle of his bright black eyes shows that a little of the old fire remains.

There is a small boarding-house at this place where sportsmen can be accommodated, and, by combining breakfast, dinner and supper, we contrived to get one first-class meal.

Turding is very extensively engaged in on this river. The great green turtle is captured in nets a hundred feet long, sunk for three days at a depth of twelve to fourteen feet; but these nets are frequently damaged by sharks, saw-fish and others, and require constant watching. The turtles weigh from 800 to 500 pounds, and are caught from October to Janu-

ary. The flesh is worth six cents a pound on the river, and from twenty-eight to thirty-five cents in New York city, while a capital of one hundred and fifty dollars is sufficient to establish one in the business. The yearly profits are about six hundred dollars, which, in this part of the country, is considered a small fortune.

Our stay at Titusville was brief, and we soon set sail, but, having a head wind, were only able to make a run of five miles before the "shades of night were falling fast," which obliged us to run our little craft inland and arrange our camp for the night. We had barely anchored our boat, waded ashore with blankets, guns and provisions, before it was dark, there being, as is well known, little or no twilight in these latitudes.

A description of one night's camp will answer for the entire trip, as there was little variation from day to day, and we were so fortunate as not to be visited by rain, for Florida without the sun is doleful enough.

Being without a tent, we usually located our camp under the shade of a wide-spreading palm-tree, its great leaves being a protection from the dew, which is almost equal to a rain in this region. Then came the cutting of light-wood, mangrove, and other hard substances for camp fire; and for producing an appetite, or as a preventive of dyspepsia after a hearty meal, allow me to recommend to the reader the cutting of mangrove or iron-wood trees. On account of the luxuriant growth of vegetation, it was often difficult to gather enough *dry* stubble for fire, and our experiences in northern woods were of little service to us. After supper on hard-tack and salt pork, varied by an occasional duck, we sat about the fire preparing the skins of birds for additions to our cabinet, or wrote in our journal of the day's adventures. Then we gathered the graceful palmetto leaves for our beds, divesting the trunk of the same tree of its rough, shaggy bark (sometimes called "boots") with which to renew our fire during the night, and drawing our rubber blankets over us were soon lulled to sleep by the hooting of the owls in the distant forest.

Our time being limited, and desiring to penetrate as far south as possible, we took but a short nap at our first camp, and, the wind hauling around into the north, we arose at midnight and again set sail. Pushing out into the river we took our camp-fire for a beacon, and it was not lost from sight until after many points had been doubled. For miles during that dark night we coasted along the western shore of Merritt's Island, and my guide, hoping to make time pass quickly, and soothe me to sleep (as I lay stretched out on the bottom of the boat eking out my night's rest), told me cheerful stories of murders that had happened along this river when "might makes right," finishing his anecdotes by recounting one deed in which he was the principal actor. This last story, and the thought of my present situation, drove all sleep from my eyelids, and it would have been very thoughtful in my guide, to say the least, if he had only mentioned this little fact before starting.

Indian River is from two to four miles wide, but in some parts narrower. The width of the eastern shore or reef is one to two miles, and the roar of the surf outside can be distinctly heard. The fresh breeze had now increased almost to a gale, and it was with great difficulty we could keep our little craft from swamping as sea after sea dashed over us. Never was the sun so welcomed as, after the long hours of the night, it arose in all its glory on our arrival off the mouth of Banana River, which flows on the east side of Merritt's Island.

The scenery along the river was a little monotonous. We missed our northern hills and mountains, but occasionally we passed groves of palm trees from 30 to 40 feet in height, while in the tops of the cypress grew lovely bunches of mistletoe.

Reefs extend out from every point, their sharp edges, in some places, appearing above the surface of the water, so we had to be constantly on the watch, or our boats would suffer in consequence. This river abounds in immense oysters. These bivalves were from four to six inches in length, were fair eating, but needed cultivation—the writer can produce some of the shells—but, alas, not the oysters.

A number of hermits, tired of the world's busy life, have resorted to this region, and with game and fish on every hand, find no difficulty in obtaining a living, and are never annoyed by a daily paper or the changes of fashion.

But we cannot recount the incidents of each day as they passed, suffice it to say, that every moment was occupied in some new enjoyment. We frequently landed for a tramp back

in the woods, after strange birds, curious bulbs and parasites. We found three distinct varieties of air plants, and on the beach old shells and sea-beans. Of course we had to endure the annoyance of mosquitoes, fleas, wood-ticks, sand-flies, no-me-sees-ums and the like, but as they didn't all attack us at once, we were happy.

One day we stopped at a place called "Barker's Bluff" to refill our cask with fresh water, where we found an old log cabin, and were very politely waited on by a woman with a child in her arms and a pipe in her mouth, to the latter of which, she was giving the greater amount of attention.

Sometimes the wind was ahead during the day, or felled us altogether, and having a fine moon the last of the trip, we sailed all night long, each taking his turn managing the boat while the other slept. Our enjoyment was greatly increased by the thought that our dear friends at home were huddling around the fire, hourly watching the thermometer to see whether the mercury was going five, ten or twenty degrees below zero, while with us it was over eighty degrees above, in the shade.

We had the pleasure of examining that peculiar little lizard called a chameleon, and verifying the old stories of its fickleness. It would change from green to brown as we placed it on the leaves or the earth, almost as quickly as men now change their politics.

No true lover of nature and nature's God can for a moment sit down under the inspiring effect of these tropical forests, and examine their luxuriant vegetation and fauna, without being full sympathy with the poor Indian who felt that there was a spirit in everything. For some time we watched the motions of this chameleon, as it moved before, with its dainty-like manners, drawing itself into all kinds of contortions, dilating and contracting its sides like an india-rubber ball, and wondered if its serpentine tail was as useful as it was ornamental.

In the last few years M. Paul Bert has, through his researches, thrown great light on these curious changes of color, and the mechanism by which they appear to be accomplished. But it would be out of place here to give a detailed account of all the methods by which M. Bert has arrived at his conclusions, as we did not commence these "Etchings" with the view of enlightening our readers on the profound subject of natural history. Suffice it to say, that by a series of careful experiments he has discovered that these changes of color seem to be entirely under the control of the nervous system, and that the chameleon can no more help their taking place than a toad can help twitching its leg when pinched. By acting in various ways upon the spinal marrow and the brain, the operator can send the color to or withdraw it from any part of the body he pleases. Indeed, a previous observer was able to cause a change of color in a piece of the skin of the animal by acting upon it with electricity; and M. Bert has proved that even in the absence of the brain the usual changes can be produced by exciting the animal in any way, thus showing that they are due to that class of nervous action which physiologists name reflex, and of which sneezing is a good example. M. Bert has made some interesting experiments on the animal while under the influence of anaesthetics and during sleep. It was formerly known that in the latter case, and also after death, the chameleon assumed a yellowish color, which, under the influence of light, became more or less dark. M. Bert has found that exactly the same effects are produced during anaesthesia as during natural sleep, and that light influences not only dead and sleeping chameleons, but that it modifies in a very curious fashion the coloration of the animal when wide awake. The same result is produced when the light is transmitted through glass of a deep blue color, but ceases completely when red or yellow glass is used. To render these results more decisive, Mr. Bert contrived to throw the light of a powerful lamp upon a sleeping chameleon, taking care to keep in the shade a part of the animal's back, by means of a perforated screen. The result was curious: the head, the neck, the legs, the abdomen, and the tail became of a very dark green; while the back appeared with a light brown saddle of irregular outline, with two brown spots corresponding to the holes in the screen. Again, by placing another animal, quite awake, in full sunlight, but with the forepart of its body behind a piece of red glass, and the hind-part underneath blue glass, M. Bert divided the body into two distinct parts—one of a clear green with a few reddish spots, and the other of a dark green with very prominent spots. From his researches as a whole,

M. Bert concludes: 1. The colors and the various tints which chameleons assume are due to changes in the position of the colored corpuscles, which sometimes, by sinking underneath the skin, form an opaque back-ground underneath the carulescent layer of Pouchet; sometimes, by spreading themselves out in superficial ramifications, leave to the skin its yellow color, or make it appear green and black. 2. The movements of the color-bags or chromatoblasts are regulated by two groups of nerves, one of which causes them to rise from below to the surface, while the other produces the opposite effect. But we have digressed very materially from the practical part of our trip, and we must leave our chameleon to his capricious reveries and take a pull at the oar of our slow sailing craft.

An incident occurred to my guide while anchored off "Barker's Bluff" a few months before, which came near putting an end to a favorite dog. This canine had been making the night melodious with his bark, which attracted the ever watchful ears of an alligator, who swam to the boat and climbed aboard, when the guide, awakening from his slumbers, raised the temperature of the air to such a degree, that Mr. Alligator beat a hasty retreat. Alligators are particularly appreciative of dogs, and many a sportsman has been bereft of his setter while retrieving water fowl, an instance having occurred at Enterprise a few days before our arrival.

Days passed, and at last we sailed through a narrow channel only half a mile wide, called the "Hole in the Wall," and soon came in sight of Fort Capron, which lies on the west bank of the river. Suddenly we were visited by a tropical wind storm which carried overboard our foresail, but lowering our mainsail immediately we ran into the dock at the fort under bare poles, while a number of its inhabitants stood watching our maneuvers with anxious eyes.

Fort Capron, on Indian River, one hundred and twenty miles from New Smyrna, was established by the United States government in the Seminole war of 1835. All that remains of the original fort is a brick chimney and the old parade grounds. From here due west to Tampa Bay, was a line of forts which had for their object the subjugation of the Indians. A gentleman by the name of Payne has now erected, near the site of the old fort, five wooden houses, which are thatched with leaves of the palm tree, often used in this part of the country for that purpose. Judge Payne is the oldest settler, and came to this country in 1849, during the second outbreak of the Indians. He is sixty-six years of age, tall, slender, long gray beard, with an iron constitution, and says he expects to live to be at "ninety." He is a man of intelligence, well informed on all subjects, has a fine library, and a more social, genial companion cannot be found in the country. He has accommodations at his house for at least twenty persons, and is happy to welcome all who come. Since leaving New Smyrna, it had not been our good fortune to meet with so satisfactory quarters, and we were agreeably surprised. Judge P. has three sons, one of them deputy collector of the port, who also watches Indian River inlet opposite, for smugglers, and during the past war it was a favorite passage for blockade runners.

The thermometer was 82 degrees in the shade on landing, and afterward arose to 88 degrees, and we were told that in the summer the mercury seldom rose above 95 degrees, but they were obliged to endure nine months of such heat.

Fresh tomatoes, lettuce, radishes, peas, to say nothing of guava and orange jelly (all raised on the place) were served us, quite a contrast to hard-tack and salt pork; while the neat rooms and snow-white linen were a decided change from sleeping in the open air, on beds of palmetto leaves, although not so romantic.

While on our way to the Rangeley Lakes, Maine, trouting during the season of 1874, we made a pleasant traveling acquaintance by the name of Colonel Von B. who was going down into the provinces, salmon fishing. We bade each other good-bye at one of the stations, never expecting to meet again. There was but one boarder at Judge Payne's, and that individual was our former traveling companion, Colonel Von B.

In addition to the cabbage palm so plenty along the river, Judge Payne has on his grounds a number of date palms, limes, century plants, and we noticed an oleander tree, over thirteen feet high, and covered with fragrant blossoms.

The last of the Seminole tribe are located about sixty miles from here on the Kissimmee River, and borders of Lake Okechobee. Their chief's name is Tus-keenugee, and they number about three hundred, including forty warriors. Ten days before our arrival an altercation had occurred, during which one of the settlers had assaulted the chief with a knife, and a council was called in which it was decided to wipe out the pale faces. Fort Capron was made ready for the siege, the windows and doors barricaded, and loop holes for rifles were cut in the walls, but upon further consideration on the part of the Indians, the war cloud blew over.

The fishing is excellent, pompano, sheephead, sea bass, weakfish, turbot, jew and angel fish are caught in any quantity within a stone's throw of the fort, and when one has a bite he little knows what species will be landed. Deer, wild turkey and quail are abundant, while panthers, bears and wild cats are occasionally to be had, and Judge Payne's sons are always ready to lend their assistance to the sportsman in procuring them. Cattle and swine seem to run wild, and the latter, which are as black as coal, with a high ridge of bristles along their backs, and tusks six inches in length, are quite a formidable opponent. The cattle feed on grass in the shallow water of the river, where in droves they are frequently to be seen, but they are nevertheless very poor, and you have no desire to call for beef steak but once in Florida, for india-rubber is tender in comparison.

It was from this point that the successful Lake Okechobee expedition, sent out by the FOREST AND STREAM, entered the everglades. This lake is distant about fifty miles to the southwest, and is the largest in Florida. Boats were conveyed on wheels, and the lake navigated for the first time by white men.

We secured fine specimens of the water turkey, or snake bird, and the snow white ibis, the latter of which measured four feet from tip to tip. Also the wood ibis (*Tantalus loculator*) and a pair of cardinal grosbeaks (*Loxia cardinalis*) which we packed with our other curiosities.

We were prevented from long tramps back in the woods on account of the extreme heat, which was very oppressive, and this in the middle of February.

To the south on the river about two miles, lies Fort Pierce, once a great trading post for the Indians, but they have now

changed their patronage to Tampa Bay, on the west coast. From here to Jupiter Inlet it is thirty-eight miles, and this brings us below latitude 27 degrees north. After passing the Halpaitiokee River the west bank is very high, but the east correspondingly low. Here is to be found the rubber tree, satin-wood, guava, mango, sea-grape, crab-wood, and the cocconut, in addition to the cabbage and date palm. One of those curiosities of Florida, an Indian mound, has been found here, and from it no less than forty skeletons of Indians have been taken, besides implements of hunting and fishing.

On an island just inside the river is Jupiter Inlet Lighthouse, one hundred and fifty feet high, and here also is located one of the five life-saving signal stations on the east coast of Florida. This house contains a French mechanical flash light, and requires the care of three men. Until recently many a poor mariner's life was saved by a rope attached to a ramrod which was fired from an old musket across the ill-fated ship, but the musket has lately been superseded by the regulation mortar.

On our return north from Fort Capron to Titusville, our "chance acquaintance" Colonel Von B., supplied us from his own stores (brought from New York), bacon, canned tomatoes, peas, soups, pickles and jellies, while Judge Payne added fresh tomatoes, limes, oranges and lemons—they were "friends in need and indeed."

Just before making a landing for camp, a large black bear crossed our bows, but on account of the darkness and want of dogs we were unable to pursue his majesty with any hope of success.

(To be Continued.)

## Fish Culture.

IOWA.—The report of the Fish Commissioner, Mr. B. F. Shaw, shows the distribution of fish in the State during the years 1876 and 1877, which was as follows:

1876.	
Native fish distributed.....	1,574,200
Salmon and lake trout.....	583,000
Shad.....	100,000
White fish.....	125,000
Pellets.....	100,000
Penobscot Salmon.....	80,000
Land locked ".....	5,000
Native fish dist. from car.....	319,000
1877.	
Lake trout.....	393,500
Native fish.....	50,000
Brook trout.....	81,600
Shad.....	150,000
California Salmon.....	25,000
Land locked ".....	10,000
California Salmon at hatching house.....	100,000
Other fish.....	10,000
Lake trout eggs ".....	1,750,000
	5,315,700

WISCONSIN LAKE TROUT AND WHITEFISH.—Under the energetic and able management of Mr. H. W. Welsher, Superintendent of the hatching house at Milwaukee reports 4,000,000 lake trout and 15,000,000 whitefish spawn on hand at present. This is pushing things, and, barring accidents, Mr. Welsher has good hopes of turning out more fry from his hatching than have ever been turned out from any other single house in the history of fish culture.

SALMON IN VIRGINIA.—We visited the hatching-house near the river on Wednesday, and Mr. H. B. Nicholas furnished us with the following information: The commissioners sent 100,000 salmon eggs, which were received here October 13, and placed in the troughs on that and the following day. On the 18th they commenced hatching, and in ten days the troughs were full of small salmon, about 90,000 eggs being hatched out. On the 28th day of the present month the little sacs disappeared and feeding commenced. The little fellows are doing well, and will soon be ready for distribution. About 40,000 will be placed in the North and South rivers, and the balance Colonel McDonald will distribute according to his judgment in other streams of the State. The hatching-house was not at all injured by the flood.—*Lexington (Va.) Gazette and Citizen.*

FISH FROM THE SANDWICH ISLANDS.—Some time ago the Chairman of the Fish Commission sent to the Sandwich Islands about 30,000 salmon and trout eggs, consigned to A. W. Bush of the firm of Friel & Bush. The salmon eggs were placed in a pond at Ewa. A Honolulu paper received by the last steamer chronicles the successful hatching of the eggs, the percentage of loss being very small. It also adds: "The trout ova, previously sent by Mr. Redding, was also successfully hatched, and the young strangers have been placed in the stream of Waipahu, where they appear to be thriving. With the salmon, which, as is well known, is a deep-water fish, returning annually to its spawning place, it is proposed—if the experiment turns out a success—to stock our principal island rivers." In return for these fish our Commission received about 100 of the awa, the choice fish of the Sandwich Islands, and a dozen mullet. More of the latter will soon be received in exchange for eggs sent by the Commission. These fish have all been placed in the water at Bridgeport, Solano county, where they may find salt water, brackish water and fresh, to each of which they are partial at different seasons. Specimens of the awa were sent on to Professor Baird of the United States Fish Commission, who submitted them for scientific consideration to Prof. Theodore Gill, the head of the ichthyological department of the Smithsonian Institute. The latter reports in brief: "The awa is found described in the books *Chanos* *Cypridella*, Valenciennes. The English name is milk fish, on account of the sweetness of the flesh. But little is known as regards its habits. It is said to attain a large size, being sometimes as much as three and a half feet in length. Letters to the Fish Commission from the Sandwich Islands say that the fish under favorable conditions reaches a weight of six or seven pounds. They will prove a valuable addition to our food fishes, but afford no sport to the angler, as they never take the hook.—*San Francisco Chronicle, Nov. 29.*

—At the Aquarium some 5,000 eggs of the brook trout come from Covey in Franklin County, Pennsylvania, all being hatched out by means of the Ferguson jar for Mr. Perry Belmont. Mr. Belmont purposes stocking his streams in Long Island with the young fish.

—The hatching of the California salmon in the Aquarium has been quite successful. Of a large quantity produced, not one per cent. have died. The fish are now large enough to be hand-fed. One of the great uses of the Aquarium would be to stock gentlemen's premises with young fish precisely in this way.

## Natural History.

### THE MARINE CARNIVORA.

NOT many days ago I heard a gentleman of very intelligent appearance, while watching the feeding of the seals on fish in the Zoological Garden of Philadelphia, quote to his companion the philosophical fishermen in Pericles: "—Master, I marvel how the fishes live in the sea." "Why, as men do a-land; the great ones eat up the little ones."

Now, I do not say that this particular gentleman did not know any better—perhaps he did, and if so I beg his pardon for taking him as the example of a class, but the incident is very suggestive of the ignorance prevailing among most visitors to zoological gardens, with respect to what they go there to see.

Probably the larger proportion of those who do not make more or less of a study of the forms of animal life which surround them, look on the seal as a fish, and an equally large proportion of those remaining, while they have an idea that it is not really a fish, take it to be a sort of whale—which in turn they are not quite sure of—or, as I have been asked, "What is the difference between a seal and a porpoise?" Now, for the benefit of such of these as may occasionally turn for information to the pages of FOREST AND STREAM I propose to tell them what a seal is. The seals are a sub-group of the same order (*Carnivora*) to which the lion, dog, wolf, bear, skunk, etc., all belong. What fish-like appearance pertains to them is owing to the power which nature everywhere manifests of adapting her organic forms to the mode of life under which they have been produced. Their resemblance to the whale, however, may perhaps be accounted for on grounds of relationship, closer than that which all forms doubtless bear toward each other; the discovery of *Zeuglodon* and other fossil forms indicating the previous existence of a group intermediate between seals and cetaceans. The group of seals has been termed *Pinnipedia* or fin-footed as opposed to the land carnivores, constituting the *Pissipedia* or split-footed.

All the Marine carnivora were originally included by Linnaeus in one genus, *Phoca*. Buffon, however, somewhere later, recognized two natural groups into which all the forms fell by reason of a very obvious character—the absence or presence of an external ear. The French naturalist, Peron, in 1816, constituted these groups into two genera, to which he gave the names of *Phoca* and *Otaria*. Brooke, some years later, arranged them into three families, according to the classification which is still adopted: the Eared Seals, the Earless Seals and the Walruses, now known respectively by the names of *Otariidae*, *Phocidae* and *Trichechidae*.

The various modifications of structure to be found among the seals offer, perhaps, the best instance existing of the adaptation of form to necessities—the rounded outline of the body together with the close pressed hair, directed uniformly backward, affording the least possible resistance to the yielding medium in which they habitually live, while the powerful development of the extremities in many species enables them to move on land with much greater ease than is known in any other marine animal, and the tough, leathery skin which covers both hands and feet, serves the purpose of the webbed foot of the duck, when in the water, and answers by its toughness to protect them from injury against the rocks when transformed into means of terrestrial progression. The nostrils are mere slits in the extremity of the nose, and can be firmly closed at will by the animal to exclude the water, while the structure of the lungs and the enormous quantity of blood contained in their arteries enables them to remain for a considerable length of time without a fresh supply of air—it has been stated that the seal can remain from a half to three-quarters of an hour under water. I have myself timed one for twenty-five minutes, although the average duration of their immersion is much less—probably not over five or six minutes. The ear in the *Otariidae* is so tightly rolled as to prevent the entrance of water, and in the *Phocidae*, in which the ear exists externally of a mere orifice into which the tip of the little finger might be inserted, there is a valve with which the opening can be completely closed. The eye, too, has a covering like the nictitating membrane of the eye of a bird, which can be drawn over it at will, protecting its delicate apparatus from contact with foreign substances, while its transparency does not admit of any interference with the powers of sight. The brain of the seal is very large and many species give evidence of an intelligence which is susceptible of much training. It was a popular opinion among the ancients that the seal possessed the faculty of recognizing the sound of music, and that they were perceptibly affected by its influence.

This belief has been handed down to the present day, and was adverted to by Mr. R. Brown, in a paper on the Seals of Greenland, published a few years ago in the Proceedings of the Zoological Society of London, in which he states that he has frequently seen seals raise their heads and listen intently to the sea songs of the sailors as they dragged their boats over the ice floes. It is hard to doubt the conclusions of so trained and accurate an observer, but I confess that experiments on the seals in the Philadelphia Garden have rendered me somewhat skeptical on this point.

The seal being an animal of a considerable grade of intelligence, pays much attention, in an inquisitive sort of way, to whatever is going on around it, and I have so far failed to convince myself that the animal, unless possessing a specially

musical education, makes any marked distinction between a sound of musical character and any other noise which may attract its attention.

The male eared seal is of large size and very robust build, and in general attains a bulk much exceeding that of the female. In some genera, as *Eumetopias* and *Otaria*, he is further distinguished by a heavy growth of hair forming a sort of short mane on the neck and shoulders, from which has been given to these species the name of Sea Lion. The character by which these seals may be most readily distinguished is the presence of a visible external ear; this is never more than an inch and a half long, is rolled tightly in the form of a cone, and stands out from the head, though directed backward.

The hair is of two kinds, one longish coat of stiff hairs, generally of some shade from light yellowish brown to a shade almost black, and another coat of soft, short hair, closely laid along the skin around the bases of the longer ones. In some genera this fur is thin and scanty, while in others it is very thick and plentiful, giving rise by its qualities to the distinctive names of Hair Seals and Fur Seals. The nose and extremities are usually bare, and the upper lip has a moustache of long, stiff, grayish white hairs.

The fore and hind limbs are enclosed within the mass of body almost to the wrist and ankle joints. The hands and feet are covered with an extremely tough, leathery skin, which almost defies cutting. On the hands each finger bears a small aborted nail, beyond which the skin is prolonged for several inches, on the foot this prolongation is slit, forming a sort of flapper to each toe; the big and little toe have no nails, or very small ones, while the three middle toes have them well developed almost into claws. All the *Otaridae* are able to move with much freedom on land—the extremities being sufficiently strong to bear the weight of the animal raised on all fours like an ordinary quadruped. Its advance is then made by an alternate raising of the head, throwing forward the fore part of the body, and then by curving the spine upward bringing the hinder extremities forward under the body, at the same time spreading them out laterally. By a repetition of this movement they advance at a considerable rate of speed by a gait somewhat ungracefully resembling the canter of a horse. A most astonishing instance of the agility with which these creatures move on land recently came under my notice. A male hair seal about five and a half feet long was brought to the Garden and placed in a pond surrounded with an iron wire fence about three feet high. In another pond a few yards distant were three more males of the same species, with whom he was anxious to fight.

Some time during the first night after he was put in the pond he was discovered by the watchman fast in a turnstile exit gate, at the lower end of the grounds, about three hundred yards from his proper domicile. He was put back, but repeated his feat so frequently that it was necessary to raise the height of the fence until he was broken of the habit.

The mode of getting over the fence was precisely such as would be adopted by a man of active habits. The body was raised until the forelimbs could be rested on the top bar, and then by a violent spring from the tail the body was thrown, just as the man would vault, over the fence, landing without harm on the other side.

The pace of the animal, when hurried, was quite rapid; indeed, a keeper who was sent to coax it back with a fish speedily found that the seal could make about as good time as he could and he was obliged to drop the bait and look out for himself. Both this male and the smaller female in the same tank climb up the perpendicular wall when the water is let off—a height of about six feet, broken only by several small projecting stones—they also drop from a considerable height either on the rocks or into the water without injury, their tough skins and a thick layer of fat immediately beneath serving to protect them.

The *Otaridae* are all polygamous; the harem of a large and powerful bull, usually containing from ten to twenty females. The period of gestation, as nearly as has been ascertained, is about eleven months, varying probably a little in different species. The young are born about June; generally only one, though occasionally twins being produced.

From time immemorial disputes have been current among naturalists as to the number of true species into which the seals should be divided. Numbers of species were established on no better evidence than a single specimen, which in many cases was afterward shown to be but a special state or stage of growth of some other form; and it was also proved that the skull, which has been one of the leading features in the classification of the *Otaridae*, was subject to a vast amount of variation in different individuals of the same species. So the species were gradually reduced to about fifteen in number, and, later still, Prof. J. A. Allen, in a valuable paper on the *Otaridae*, published in the Proceedings of the Essex Institute for 1866, reduced the whole number to less than ten well-marked species, belonging to five genera. These are found on both sides of the Pacific Ocean, from the Arctic to the Antarctic regions, one species only ranging up the Atlantic coast of South America as far as Brazil.

The geographical distribution of these animals, so far as it has been ascertained, is very striking, there being one genus of fur seals toward each pole, and one genus of sea lions intermingling slightly with these, and extending southward from the north, and northward from the south, occupying the space intermediate between the fur seals and the fifth genus, containing two species very closely allied to each other, and occupying respectively the north and south waters of the

equatorial zone, the genera being thus evenly balanced in the two hemispheres.

It is believed that the habits of the different members of these groups differ to a very slight degree. It will therefore be amply sufficient to take one of the best known as typical of them all.

That one which has been most carefully studied is the Fur Seal of the North (*Callorhinus ursinus*), known among the early voyagers and naturalists as Steller's Sea Bear. The fully grown male of Alaska and the Pribilof Islands, where are located the most extensive "rookeries"—as the breeding places of the seals are technically termed—grows to a length of six or seven feet, and a weight of five to six hundred pounds, the females in most cases weighing not more than a fourth or fifth as much. In appearance this seal does not differ much from others of his family, but that which constitutes him *par excellens* the prince of seals, is the thickness of his soft undercoat of fur, lying beneath the longer hairs, which are all that is visible externally. This it is that furnishes the sealskin of commerce, and causes annually so great a slaughter of its unfortunate natural owners. It will not be without interest to give some details of the social economy of this seal, as its habits may be taken as illustrative of those of all the eared seals. It is well known that almost all the members of this species pass eight or nine months of the year far out to sea, spread over the whole North Pacific, coming to the shore only at the time and for purposes connected with breeding. They, then, for a time, become land animals.

The "rookeries" are generally selected along the shores of an island, or in some cases the mainland itself, and are resorted to each year successively. The Pribilof group of islands, about lat. 57 deg N., in the Sea of Kamtschatka, is the favorite spot on the American coast of the North Pacific.

The seals make their first appearance in May, when the snow and ice is well melted, the most eager and vigorous of the bulls coming first to see that things are all right, and to select their favorite station, not too far from the water. For among them he who comes first is first served, and fares the best all through the season, provided he is physically able to protect his choice and hold it against all comers. Through the month of May and into June the males continue to arrive, each one as fast as he comes taking up his station on the beach waiting for the arrival of the female part of the community. These do not generally come in from the open sea until summer has well set in, from the middle to the last of June. No sooner do they appear than the work of selection begins on the part of the bulls, and the females are coaxed, bitten, driven and thrashed to the few square yards of rock which have been pre-empted by their lord and master. Some of the larger bulls succeed in getting as many as twenty cows under their charge, and many and bloody are the battles that must be fought to keep covetous outsiders from stealing them away. Mr. Henry M. Elliott, in his report to the Government on the Territory of Alaska, has a very interesting chapter on the seal fisheries. Of the battles waged by the bulls at this season, he writes as follows:

"Some of these bulls show wonderful strength and courage. I have marked one veteran who was among the first to take up his position, and that one on the water line, when at least fifty or sixty desperate battles were fought victoriously by him with nearly as many different seals who coveted his position, and when the fighting season was over (after the cows have mostly all hauled up), I saw him covered with scars and gashes, raw and bloody, an eye gouged out, but lording it bravely over his harem of fifteen or twenty cows, all huddled together on the same spot he had first chosen."

Very soon after the landing of the females the young are produced, and this period is shortly followed by the beginning of the season of rutting. This being over early in August, the bulls begin to return to the water, having been absent from it for at least two months, wholly without food, having been engaged unremittingly either in attentions to their seragios or in furious fights for their protection. They are consequently much weakened and emaciated, and at once go out in search of food, whence they do not return much before the whole colony breaks up for the season. The cows are left in almost undisturbed possession of the beach to nurse their young, and instruct them in the art of swimming, in which it is necessary for them to become proficient before the time of leaving. The young at birth are somewhat over a foot long, and rarely weigh more than seven or eight pounds, but by the end of September they have grown to a considerable size, and are able to go with the main body on their winter cruise.

The seals which are legitimately killed at the fisheries consist mostly of those bulls comprising a half, or perhaps two-thirds of the whole male population, who have been prevented by the larger and stronger ones from visiting the breeding-grounds. These "bachelors," as they are called, are therefore compelled to herd by themselves at a point apart from the rest. They are then surrounded and driven inland without difficulty, a distance in some cases of five or six miles, to the slaughtering-grounds, where they are readily dispatched by a blow on the head. The skins are packed in salt, baled and shipped to the manufactory, where they are put through a variety of processes in the course of preparation. The skins are shaved down to the proper thickness, the long hairs are carded out by hand, the skins are rendered pliable by working with grease, and after careful drying they are ready for the delicate finishing touch of dyeing. In this process a large number of coats have to be applied by hand and with a brush before they are in proper condition. It is not surprising, considering the difficulty of preparation and the remoteness of

the points at which the skins are obtainable, that their market value should be considerable.

Mr. Elliott estimates that the enormous number of 180,000 seals may be annually killed at the Pribilof Islands without danger of depleting the original stock. This will be more readily apparent if I may be allowed to add a few figures from his report, previously referred to. After a careful computation of the area of the breeding grounds, and then assuming a certain space to be required for each seal, with which the whole space is densely packed, he arrives at the conclusion that approximately 4,700,000 seals are present at these "rookeries" during the breeding season.

This species, being much affected by the slightest degree of heat, is never found far to the South—their favorite home, as before stated, being the sea of Kamtschatka.

The Southern fur seal (*Arctocephalus falklandicus*) closely allied in structure, and not differing appreciably in habits, occupies the corresponding latitudes in the Southern Hemisphere, being found in enormous numbers at the South Shetland and Falkland Islands.

Another well-known eared seal is the sea-lion of the North Pacific (*Eumetopias stelleri*). Many readers will remember seeing in the government building at the Centennial Exposition the stuffed skin of an enormous male of this species which in life must have weighed not far from twenty-five hundred pounds.

The Northern Sea Lion has all the characteristic marks of the *Otaridae*, but may be distinguished from all but *Otaria* by the enormous size of the male and the coarseness of its hair, which grows about the lower neck and shoulders to a length of several inches, giving to these parts the appearance of being developed even beyond the bulk usually attained in all these seals. These animals are found all along the Pacific coast from Middle California northward even as far as the breeding grounds of the fur seal in Alaska, and in lesser numbers exist on the northeastern shores of Asia. They are very numerous about the Bay of San Francisco—the celebrated colony on Seal Rock in that harbor belonging to this species.

The bull sea-lion is a savage and dangerous animal when enraged, and encounters have frequently resulted disastrously to an attacking party.

Capt. J. H. Vincent of San Francisco, who has been largely engaged in killing these animals for the oil which they yield, gave, recently, to the writer a description of a sea-lion hunt which took place during the past summer, in which one of his men was seized by a large bull, and so dreadfully mangled that he very shortly died. I have in my possession the skull of a large male killed by this party at the Farrallone Islands, which measures 14 inches in extreme length, from the base to the extremity of the pre-maxilla, and 7.4 inches in width between zygomatics. The canine teeth in this skull were enormously developed, one which is before me now measuring 1.6 inches in length from edge of socket to tip, and 2.9 inches in circumference at base where it issues from the alveolus.

By way of contrasting the size of the male and female of these animals, I give also the corresponding measurements taken from the skull of a fully adult and unusually large female of the same species—extreme length of skull 11.8 inches; width between zygomatics 6.8; length of canines 1.1; circumference of canines 1.6 inches.

The whole appearance of the two skulls is very suggestive of the vast difference in physical development between the sexes; in the males the ridges for the attachment of the muscles having an enormous development, while in the female they are barely noticeable—this being in perfect accord with the mass of evidence which has been adduced by Mr. Darwin and others in support of the law that the sexual characters are developed to the greatest degree in those species which are most polygamous in habit. This is nowhere better shown than in those seals which come under this head, in which the males of some species, besides other differences, outweigh the female sometimes in the proportion of 5 or 6 to 1, and in one of which species (*Callorhinus ursinus*), perhaps the most polygamous of all, an old bull has been seen guarding a household of forty-five cows. The dentition of *Eumetopias* consists of ten molars, two canines and six incisors in the upper, and the same, with one less pair of incisors, in the lower jaw. The last or hinder pair of molars above, being separated by a space of about three-quarters of an inch from the next pair. The molars are sharply-pointed and are well fitted for tearing the fish which forms the diet of the animal. The outer pair of incisors much resemble the canines, but are somewhat smaller.

The sea lion of the South Pacific (*Otaria jubata*) was long considered as identical with the above, but the possession of six molars instead of five in the upper jaw, has been considered fully warrant its generic separation.

The sea lions differ little in their ways of life from the fur seals.

The main points of difference between Gillespie's Hair Seal (*Zalophus gillespi*) and *Eumetopias*, its near neighbor on the coast of California, are its smaller size, the absence of the so-called mane, and in some minor osteological characters; otherwise there is much resemblance between them; and this species too is often known by the name of sea lion. A number of them have been kept both at the Central Park Menagerie and the Philadelphia Zoological Garden, where they have always proved universal favorites; their graceful appearance, the rich brown color of their coats as they shoot dripping from the water on to the rocky edge of their pond, and the lig

ning-like rapidly with which they dash through the water to seize the fish thrown to them by their keeper, all combine to make them among the most attractive of the inhabitants of the garden. They live wholly on fish, a nearly grown male consuming about fifteen pounds a day. Fish up to the size of five or six pounds will be swallowed whole at a gulp. When one of greater size is given to them, it is curious to see it seized in the jaws and flapped violently from side to side on the surface of the water or against a rock until it is broken into pieces small enough to be swallowed. The bones of the fish are readily digested and removed when the digestive apparatus is in working order. The writer, however, some time since, in dissecting a seal which had been sick and had not eaten for some days before its death, found in its stomach a double handful of herring bones apparently uninjured.

This species appears to be more docile in disposition than the sea lion. Much, however, depends upon the individual, occasionally the males being savage and disposed to bite without any provocation.

The proportions of the skull in this species are somewhat narrower and lighter than in *Eumetopias*; the muzzle is more abruptly truncated in front and the sagittal crest is much higher, giving to the head a more rounded outline.

The dentition is the same, but the molars are all closely approximated, the spaces between the two hind pairs in the upper jaw being wanting.

The corresponding species of the southern seas (*Zalophus lobatus*) differs little from its northern congener—more in geographical distribution than in any thing else. It is mainly confined to the Australasian seas, *Zalophus*, as well as *Eumetopias* and *Otaria*, is found on both sides of the Pacific, north along the Japanese Islands and to the south in New Zealand and Australia, thus completing the analogy of the distribution of these seals in the opposing hemispheres.

The second group, *Phocidae*, is much more generally distributed over the waters of the globe than are the last; from the icy oceans of the circumpolar regions well down into the temperate zones they are common. They are much more plentiful, however, in the colder parts, and are found to the southward only during the winter.

They present at once obvious points of difference from the eared seals. Their structure, however, as their habits of life, is but a modification of the same plan.

The members of this large group touch both extremes of size known among the seals but with the exception of the enormous sea elephant—largest of all creatures inhabiting the water, except the whale, they are of medium or small size. It is not difficult to recognize the members of this family, the absence of the short, pointed ear of the *Otariidae*, which in them is replaced by an almost circular orifice capable of being closed at will, would serve at once to mark them even without other points of difference.

The fore extremities are placed further forward, and the neck thus appearing shorter, makes them look more rounded on the breast outline. The rear extremities are permanently attached in the line of the axis of the body, and not being articulated in a manner as to admit of lateral extension to any degree, they are useless as supports to the weight of the body on land and serve little more than the purpose of the tail of the fish. It will thus be seen that the seals proper are much more strictly confined to the sea than their more quadrupedal cousins—in fact, they do little on land but drag themselves beyond the water's edge, where they lie and bask in the sun until the rising tide floats them off again. With a few exceptions, they are monogamous; the young are born on shore, generally in some cave or cleft of rock not far from the water. Like the eared seals they are very gregarious and are seen by all Arctic voyagers in large numbers on the ice floes of that region. To the inhabitant of those inhospitable parts the value of the seal is altogether beyond computation. It furnishes him with oil for his light, blubber for his food, skins for his clothing, sinews for his cord and his thread, and bone for a vast number of his other necessities. The meat is very black and rank, and is said to be utterly unbearable to any palate but that of an Esquimaux. In Greenland, where a closer proximity to civilization has supplied some of the wants elsewhere ministered to by the seal, one of the ends to which the product of the animal is most generally applied is—as under our higher cultivation—the adornment and embellishment of women; that which we here admire as seal skin saques, so becoming to their fair wearers, is equally admired and valued by the Greenlanders when made up by the mistress of his kyak and his hut into the shape of a pair of breeches to add to the attractions of her own fair person.

There are a large number of seals in this family, differing in size and color but in little else. The dental formula is generally—molars, 5-5 5-5; canines, 1-1 1-1; incisors, 3-2 3-2.

The Spotted or Common Seal (*Phoca vitulina*) is well known to most visitors to menageries or zoological gardens, and may be taken as a typical seal of this family. This species is more generally distributed than any of the others, being spread over all the seas bordering the northern part of Europe and America, ranging to the Channel Islands and the coast of France in the former and in the latter to Maine, and occasionally to Massachusetts.

The most striking member of this group is, however, the Elephant Seal or Sea Elephant (*Macrorhinus proboscideus*). This enormous animal, reaching, in the male, a length of from twenty-five to thirty feet and a circumference of as much as eighteen, ranges, according to Peron, who, in his *Voyages de Decouvertes aux Terres Australes*, has given a circumstantial account of this species under the name of

*phoque a trompe*, between the 35th and 55th degrees of south latitude, over almost all the islands of the Pacific from the Falklands and the Cape of Good Hope to Kerguelen's Land. This seal is characterized by some very marked peculiarities. The nose of the adult male, when at rest, presents nothing strikingly apart from that which the nose of a large seal should; but when he becomes excited in any way, from rage or hunger, or from the more tender emotion aroused at stated periods by the presence of the other sex, this feature swells and becomes elongated and extended into a sort of proboscis some eight or ten inches long, and bearing much the relation to the face that the trunk of the elephant does. This peculiarity has given rise to both the common and scientific designation of the animal. The female is smaller than the male, and is destitute of this remarkable appendage. They are polygamous and much resemble in habit the fur seal and sea lion. The young are produced on land, and when first born are about four or five feet long. By the end of the fourth year they have reached their extreme length, and subsequently devote their surplus physical energy to getting fat.

They make annual migrations northward in winter, and back toward the higher degrees of latitude as warm weather advances. They are limited in power of progression out of water—in this respect resembling the rest of the *Phocidae*. They vary from the typical dentition of the true seals, having four incisors instead of six in the upper jaw and only two in the lower.

The third and last family of the aquatic carnivores, the *Trichechidae*, contains but one member, the well known Walrus or Morse (*Trichechus rosmarus*). The enormous tusks which form so conspicuous a feature in the physiognomy of this species, result from the extreme development of the canine teeth in the upper jaw. These reach a length of eighteen or twenty inches, and are known to be sometimes present in the female.

Even if, contrary to the old belief, a few of this sex had not been seen with tusks, it would not be probable that they existed only in the male as sexual characters, for so far as is known the bulls are monogamous and have little use for such terrible weapons of defence.

The great weight of these tusks has given a decided character to the bones of the skull, the fore part of which has been built up into a strong convex mass of bone capable of bearing so great a strain.

The largest males are thirteen or fourteen feet long, and weigh perhaps two thousand pounds; the female is not much smaller. Although they inhabit the coldest regions toward the Poles, the hair is very scanty, what little there is being of a brownish color; the enormous masses of blubber which accumulate beneath the skin serve, without doubt, in place of an outer coat to keep them warm. Notwithstanding the bareness of their skin, they are much infested with parasites which cause them great uneasiness. Mr. R. Brown states that he has seen an old bull lying stretched out on the ice and covered with a flock of small birds, which were industriously engaged in picking off his tormentors, the old giant occasionally manifesting his huge enjoyment of the proceedings. For a long time there was a dispute in existence regarding the nature of the food of the walrus. It has now been well settled that it is purely carnivorous, consisting of blubber, fish and crustaceans. Mr. Bartlett, of the London Zoological Garden, further expresses his belief that the animal would take kindly to carrion, and thinks that in the animal economy of the Arctic seas it may perhaps play the part of hyæna.

The Walrus herds together in large flocks throughout the polar regions of Europe, Asia and America, remaining in the neighborhood of ice, and on our continent rarely going farther south than the Gulf of St. Lawrence and Behring's Straits. They lie out on the ice floes in the higher latitudes, where the young are born, about the month of June. They are clumsy and unwieldy both in the water and on land; on the ice they assist themselves partly by looking their tusks on some projection or crevice, and dragging their bulky bodies along.

They are very fearless, and will fight desperately in defence of one of their number if injured. Dr. Kane describes a battle which took place between a boat crew of his men and a herd of walrus, one of which they had wounded, in which the men barely escaped destruction.

Their economic value is not great, all of their products being more coarse than those obtained from other seals, and they are used by the Esquimaux only in those latitudes where little else can be procured, their range extending farther to the north than that of any other species of the marine carnivora.

A. E. BROWN.

—The *Sunbury Gazette* disclaims the misnaming of the grouse, erroneously imputed to it in a recent paragraph, and very justly trusts "that FOREST and STREAM will reverse its opinion as to 'the nonsense in the *Sunbury* paragraph,'" which, of course, we do.

—Four Laplanders and seven reindeer, brought from Kantoine, have arrived in London. The Laplanders, with their dogs, an Arctic fox, two sledges, a tent, a variety of dresses, and two of the reindeer, are located at the Westminster Aquarium. These four Laps are the first that have ever visited England. They are two men and two women, are cousins, and their ages from 19 to 21. They go through certain performances, such as catching the reindeer and harnessing it to a sledge, tent-building, thread-making and singing, to illustrate the simple kind of life they lead.

Sept. 8. This afternoon I was fortunate enough to shoot a field sparrow, *Spyzella pusilla*, in albinotic plumage, having the two middle tail feathers pure white, remainder of plumage normal. The bird was by the road side in company with a dozen of the same species. Soon after in a pasture lot I came upon a flock of perhaps 400 robins, (*Turdus migratorius*) one of which had a white tail feather, the contrast being very striking as the bird took flight. When looking in a chestnut tree for the robin, killed a male blue bird, *Sialia sialis*, having a portion of the back and sides of the neck and breast mottled with white.

Sept. 10. Received a pure albino red-winged blackbird, *Agelaius phoeniceus*, killed here to-day by Lucius Alger; the breast has a yellowish tinge and the lesser wing coverts show a tinge of scarlet. This afternoon saw a robin with several of the wing feathers white.

Sept. 21. This morning killed a partial albino field sparrow, *Spyzella pusilla*, having two tail feathers, and a primary in each wing white.

Sept. 23. Saw a robin, *T. migratorius*, with the back and some of the wing feathers white; unfortunately the seedmen was not secured.

Oct. 9. While shooting to-day within the limits of this town, Mr. W. Coe killed two beautiful specimens of the yellow rail, *Porzana noveboracensis*. These birds are very rare, and are difficult to force from the ground without the aid of a good dog.

Oct. 20. Two young of the red squirrel, *Sciurus hudsonicus*, pure white were taken to-day; they are nearly full grown, and have dark eyes. Dr. Wm. Wood, of East Windsor Hill, Conn., informs me that it is not uncommon for the young of the red squirrel to be white and turn red afterward. He has had them undergo the complete change when kept in a cage.

[The above extracts from Mr. Sage's note-book will be of interest to all collectors. This seems to be a good year for albinos, although we have heard of no one so fortunate as our correspondent. Mr. A. B. Covert writes us from Michigan that he has taken four albinos this fall, among them *Sitta carolinensis* and *Cyanura cristata*, and we have heard of others who have done almost equally well. One only capture in this line as yet, has been a robin, all white except the head, which is pale slate color.—Ed.]

DOMESTICATED WILD TURKEYS.—We saw at the Hoffman House, Broadway, on Monday night, a box of wild turkeys awaiting shipment by express to the parties to whom they were consigned. Although of wild stock they were in reality tame, having been domesticated by Chas. H. Reed, the proprietor of the Hoffman House, at his farm in Far Rockaway. They were beautiful birds of the real bronze type, male and female, the gobblers having the lustre of plumage and the long patriarchal beard characteristic of the species. These birds come from stock procured in Minnesota, and are vouched for as being of the true type of wild turkey (*Meleagris gallopavo*). Mr. Reed has had very fair success in domesticating wild turkeys as well as ruffed grouse, quail and other fowl, his proclivities in this direction being well known among fanciers. He has recently sent four of these birds to Lord Stanley, in England. We do not at present recall to mind any other person so extensively engaged in propagating wild turkeys, excepting the Hon. J. D. Caton, of Ottawa, Ill., who has raised several hundred, some particulars of whose experiments and successes have already been published in this paper. By the way, Mr. Reed, who is a very active member of the Blooming Grove Park Association, has pledged himself to construct a drive around the whole circuit of Lake Giles, the beautiful body of water in the Park, near which the club-house of the association stands. The drive when completed will be nearly three miles long, the beauty and enjoyment of which will be enhanced throughout by the undulating surface of the land, with glimpses of prominent points, and the constant variety of scenery afforded as the drive approaches the lake or leads through the woods.

JUDGE EVERTS' MIGRATORY QUAIL HEARD FROM AGAIN.—We have received from a correspondent at Skuykill Haven, Pa., information of a bevy of quail found by him thirty miles west of Harrisburg, and which from the description we infer to be a part of the migratory quail found in Vermont by Judge Everts. From our scanty information, not having ourselves seen the Messina bird, we are not confident of the identity, but have forwarded our correspondent's letter to Judge Everts.

We sincerely hope the birds may prove to be a part of the lot in question, as we especially desire evidence that the birds have not flown out to sea and been drowned, but that a portion still remain in the country.

AN INTERESTING QUESTION—Lakeville, Conn., Nov. 20.—I wish to ask through your columns if any of my brother sportsmen have noticed the same disparity in sex of ruffed grouse killed by them that I have? Last season, out of about 100 birds killed by myself and friends, but three were hens. This year, out of forty-one birds killed during a trip to Berkshire Co., Mass., three were hens; and of over a hundred killed since the opening of the season in this State but four hens were found in the lot. The majority of the birds have been old cocks, with a ruff as "big as a man's hand," and I have noticed several specimens in which the ruff was a golden bronze, merely tipped with black on the ends of the feathers. I should like to know if any one else has noticed so great a disproportion.

Have had bad luck with wild rice. Sowed a bushel, came up nicely, and muskrats ate it off close to the roots.

Yours truly, W. H. WILLIAMS.  
[Certainly this is a most interesting question, and if further investigation should prove it to be a fact that but few female grouse are killed, it would seem to account very well for the comparative abundance of the ruffed grouse in some localities where they are "hunted almost to death." The habits of the ruffed grouse are such as to insure an abundance of the birds as long as the hens are left unharmed, for there will always be males enough left over to accomplish fatherly duties for a

much greater number of females. We hope that other correspondents will give some attention to this matter, and will let us know the results of their inquiries.—Ed.]

**MORE BIRDS' NESTS IN EXTRAORDINARY PLACES.**—*St. John, N. B., Nov. 30.*—Under this head I beg to give you an account of two cases that came under my notice.

In the spring of 1859, a pair of robins took possession of one of the pigeon holes (i. e., a receptacle for papers, way-bills, etc.) of the guard's brake van on the Essendine and Stamford Railway, Rutland, England. Industrious the happy pair worked during the time that the van was at Essendine (for this van ran to and returned from Stamford three times a day, a distance of twenty-eight miles) until the nest was completed. The female laid five eggs, and incubation commenced. She was carried to and from Stamford some ten or twelve times; but this happy state of things was suddenly brought to an end by an ignorant Nottingham drummer trying to secure the little bird by putting his hat over the nest. Mrs. Robin could not brook this intrusion—the nest was forsaken.

Case 2. A pair of blue tits chose for their nesting-place a small cavity that had been caused by a little washing away of ballast under one of the rails of the Great Northern Railway, the depth of the cavity from the under side of rail being about five inches. The nest was completed, the young tits hatched and flew, they having had, in addition to the care of their mother, the careful guardianship of Weston, one of the brakemen. There were about twenty-five trains a day clattering over the rail.

If Mr. Frank Buckland would like to add the above cases to his category of extraordinary birds' nests, there are persons living in Stamford and Essendine who, I am sure, will corroborate the above.

Yours obediently,

TANTRAMAE.

**HABITS OF THE WHITE FISH.**—The following letter from Mr. Fred. Mather, who recently went to Germany and Prussia with fish from this country, will be read with interest by fish culturists:

BERLIN, Nov. 8, 1877.

My attention has just been called by Prof. Peters of the Museum of Natural History, of this city, to the fact that a newly discovered species of *Coregonus* (*C. generosus*) from Lake Constance, has, during the breeding season only, an elevation of the centre of each scale, presenting, when the back of the fish is held toward the person, an appearance of a series of ridges or stripes resembling the lateral line. Having never observed this, nor heard of it in America, I hasten to write that our fish culturists may, if not too late, observe if our own *C. albus* presents this remarkable change during the breeding season, and report for the benefit of natural history.

FRED. MATHER.

**ARRIVALS AT THE PHILADELPHIA ZOOLOGICAL GARDENS FOR WEEK ENDING TUESDAY, NOV. 27, 1877.**—Two opossums (*Didelphys virginiana*), presented; one Yemen sheep, born in garden.

For Week Ending Tuesday, Dec. 4, 1877.—One opossum (*Didelphys virginiana*), presented; one brown capuchin (*Cebus fassuatus*), purchased; three white rats (*Mus rattus var. albus*), presented; two guinea pigs (*Cavia caprera*), presented.

ARTHUR E. BROWN, Gen. Supt.

**RECENT ARRIVALS AT THE CINCINNATI ZOOLOGICAL GARDEN.**—Five English pheasants (*Phasianus colchicus*), purchased; one red-winged starling (*Agelaius phoeniceus*); twelve purple grackles (*Quiscalus versicolor*), captured in garden; one weeper capuchin (*Cebus capucinus*); three rhesus monkeys (*Macacus erythrorus*); two pig-tailed monkeys (*Macacus nemestrinus*); seven Macaque monkeys (*Macacus cynomolgus*); two bonnet monkeys (*Macacus radiatus*), purchased; one diamond rattlesnake (*Crotalus adamanteus*), presented by Frank J. Thompson; two lions (*Felis leo*), born in garden; one woodcock (*Philohela minor*), presented by Master Frank Hiltzer, city; one coot (*Fulica americana*), presented by C. Drury, city; one loon (*Colymbus torquatus*), presented by Eureka Stove Polish Company, Wooster, Ohio; one badger (*Taxidea americana*), presented by Mr. John Kyle, city.

FRANK J. THOMPSON, Acting Snp't.

**SPLIT BAMBOO RODS.**

To our customers and the public:—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

**Woodland, Farm and Garden.**

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, GEO. N. Y. HORTICULTURAL SOCIETY.

**MUSHROOMS AS FOOD.**

11 PEMBERTON SQUARE, Boston, Mass.

EDITOR FOREST AND STREAM:

A medical gentleman of this city (a subscriber to your journal) has called my attention to the issue of Nov. 15, containing a communication on the above-mentioned topic. I am a professed fungus eater, using various species of toad-stools for food daily. I gather them fresh in summer, and dry my superfluous stock for winter use. This study has been a hobby for some years, and I am under obligations (often to total strangers) for specimens, for interesting items, as well as for information on cases of poisoning. The object of this letter is to commend your editorial comment on Mr. Garlick's "rule," which is safe for the student but dangerous for the public. Let me give a few reasons: 1. Most people do not know the taste of esculent fungus. They may therefore be struck by a novel—attracting them momentarily—flavor, the indulgence in which experiment will cost them life itself.

2. The lines of distinction between some varieties of fungi are so closely drawn that an amateur may easily cook three mushrooms, believing them identical. He "gobbles" (to quote Mr. Garlick) one to his delight. He afterwards the third to his destruction. The fairy-ring *Champignon* (*Marasmius oreades*) is very common, easily recognized, and of

rare excellence. But I have never received them gathered by friends without detecting specimens of totally different species. Yet these persons had been warned by me of the distinguishing marks of the esculent and the doubtful fungus.

3. The consequences of a mistake are so fatal that no one should presume to eat mushrooms unless they are willing to devote time enough to the study to insure perfect safety. I have in mind a case where three persons died, a painful death, and, by the statement of the only survivor of the fatal meal, not more than two tablespoonfuls of the stew were eaten at the table. No antidote to fungus poison has ever been discovered.

4. Mr. Charles James Sprague (a Boston mycologist of rare attainments) assures me that he never allows any fungi eaten in his house (excepting the common mushroom), as he believes intermediate forms exist among Agarics which no expert can identify. Certainly there is no rule or test by which hurtful fungi can be divided either on paper or in practice from those that are useful for food.

While giving these cautions I also express the opinion that there is no excuse for the current ignorance on the subject, except in the fact that all mycologists pursue the useless phantom of identifying microscopic fungi; that the majority of toad-stools are just as safe esculents as the common mushroom. Further, I have tested, on my own stomach, perhaps a hundred varieties, some of which have been long considered poisons, and have never been deceived. Your readers can find Mr. Garlick's "rule" explained by me in the *Popular Science Monthly* for May, 1877. I hope it will be generally followed by those who may study and classify fungi, and thus new varieties introduced to the knowledge of the public, with their characters as properly vouched for as that of the *Agaricus campestris*. It would be a favor to me to know the particulars of the case of poisoning quoted by you, if any of your readers can give them.

JULIUS A. PALMER, JR.

**THE NEW YORK HORTICULTURAL SOCIETY.**

**L**AST week we gave a memorandum of the officers of this society elected for the ensuing year. We would now call attention to a few facts embodied in the reports of the officers presented at their last monthly meeting. Holding a charter dated March, 1822, through lack of interest in horticultural matters, and probably scarcity of money, the society held its last exhibition in 1857, until two years ago an effort was made, principally by those in the trade, to resuscitate the society, and with what success, let these reports testify. The monthly meetings have been interesting and well attended. The three exhibitions given at Gilmore's Garden in May, June and September, of this year, not only proved the best ever held in New York, but by the large attendance and the great interest manifested in the various exhibits, showed that the combined efforts of the nursery men and florists were appreciated. According to the report of the executive committee, the amount paid for premiums and necessary expenses was \$4,223, leaving a balance in the treasury of \$400, which, considering that their income is altogether derived from the dues of members and the receipts of the exhibitions, is ample testimony to the careful and economical manner in which the affairs of the society have been conducted. Too much praise cannot be given to those gentlemen who exhibited such splendid groups of plants and cut flowers, while the florists of New York and Brooklyn vied with each other in sending such beautiful and elaborate designs in flowers, as made their table (more especially to the ladies) the centre of attraction and admiration. At the September exhibition the show of fruits and vegetables was the best ever placed before the public of New York, and we doubt not that the coming season will see still greater efforts put forth by the members and exhibitors to gratify the public taste still further in every respect, apart from the great moral influence which these exhibitions undoubtedly exert on the community at large. As the membership is only \$5 per year, for which a full equivalent is given in admission to the exhibitions alone, we would fully endorse this society in every way, and trust our readers will assist it by every means in their power, so as to give it a firm standing in our midst. The secretary, W. J. Davidson, Box 191, Brooklyn, N. Y., or any member of the society, will gladly receive applications for membership, or give any further particulars in their power.

—We have just received from Mr. Charles Krick, 1,101 Broadway, Brooklyn, a bunch of flowers of his new *Bouvardia elegans*, var. *Rosaline*. It is of a beautiful clear pink color, and the trusses of bloom are as large, while the individual flowers are larger than the type. We consider it a great acquisition to our stock of florists' flowers.

**NATIONAL TROTTING ASSOCIATION.**—The annual meeting of the General Board of Appeals of the National Trotting Association adjourned on the 6th of Dec. after a laborious session of three days. Among the concluding proceedings was the election of Edwin Thorne, of Millbrook, N. Y., to be First Vice-President of the Association, in place of Hon. C. W. Hutchinson, of Utica, N. Y., resigned. Mr. Thorne was also appointed as Chairman of the Atlantic District Board.

**NOTICE TO SPORTSMEN.**—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting.

P. O. Box 1,294.—*Advs.* ABNEY & IMBRIE, 38 Maiden Lane.

**A SERIAL HUNTING STORY.**—"Buck, Bear and Buffalo; Or, Hunting from Lakes to Ocean," is the title of a serial hunting story by the well-known "Mnemosyne," which will be commenced in the Christmas number of the *Chicago Field*. Subscription, \$4 a year; \$3 for six months; \$1 for three months. Single copies, 10 cents. Address March & Co., Proprietors *Chicago Field*, 119 East Madison street, Chicago, Ill.—*Advs.*

**The Kennel.**

**TO CORRESPONDENTS.**—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed, signs of suffering, etc.

**THE SAINT LOUIS BENCH SHOW.**—Our Western friends are actively exerting themselves to make their St. Louis Bench Show one of the great canine events of the coming year. We understand that Mr. Frank Kavanagh, a leading member of the Carleton Club of England, will act as one of the judges. Mr. Kavanagh's thorough acquaintance with dogs was manifested at the bench show of the Westminster Club. The time for giving the show is well selected, and we are informed that breeders and owners of choice animals all over the country are anxious to take part in the exhibition. One feature of the show will be a display of guns and rifles, sent there by the leading manufacturers in the United States. In addition to the regular awards, a number of special prizes have been presented. Mr. T. A. Durgan, the silversmith, offers silver plate worth \$50. Messrs. Mermod, Jaccard & Co., the jewelers, have presented silver worth \$100. One member of the association gives silver cups valued at \$75. Messrs. Burrell, Comstock & Co., send a complete set of furniture. The Goodyear Rubber Co. give an entire rubber outfit. The St. Louis Book & News Co. present a complete set of current sporting literature, including *Hallcock's Sporting Gazetteer*. A man with a good dog can win a dozen shirts—not for the dog, but for himself. Apparently there is a dog excitement at St. Louis, and the business has but fairly commenced.

It is very possible that the railroad and express companies will take half fares for the two and four legged visitors to and from St. Louis, for it happens that Mr. E. Hayden, so well known as the manager of the American Express Co., is president of the St. Louis Bench Show. The board of managers are already in communication with many English gentlemen owning fine breeds of animals, inviting them to St. Louis, and inducements are held out for them to bring on with them their choicest dogs. What is particularly wanted is a good collection of Skyes, Dandie Dinmonts and terriers. We would advise some of our Philadelphia friends to bring to the St. Louis Bench Show some of their pretty brutes. There is possibly a demand for good English setters in St. Louis, and we should think that dogs of approved race and well broken would find eager purchasers. Some two or three good stud dogs are badly wanted in Missouri. Perhaps it would be well if Mr. Llewellyn would think it worth his while to come in person with some of his choice animals. We have more than once heard that the sale of good dogs in St. Louis, and in the West generally would be an easy task. Mr. Smith, of Strathroy, would find it to his advantage to be present at St. Louis, as the well known reputation of his breed of dogs would assure him numerous sales. We repeat the names of the officers and board of managers, to whom all inquiries should be made. President, E. Hayden; Vice-Pres't, J. A. Wherry; Secretary, Jno. W. Munson; Treasurer, H. S. Brown. Board of managers—Messrs. E. C. Sterling, C. J. Clark and W. L. Scott.

**ST. LOUIS BENCH SHOW.**—M. Von Culin, of Delaware City, informs us that he will go to the St. Louis Show with a private car, and can take a few other dogs than his own, which will have the advantages of proper care *en route*.

**ECHO AT THE PHILADELPHIA DOG SHOW.**—We publish with pleasure the following communication from Mr. Colket in regard to his dog Echo. Though objecting to his size, we think a handsome built dog, with a finer head, we never saw. The only trouble would be, we are afraid, to feed him, if he eats in proportion to his size. As Echo is phenomenal in stature, we mentioned him as such. Nevertheless we do not fancy large dogs. As a type of the big pointer we would mention the Brack breed, which comes from Germany. Some years ago some of this strain were to be seen in New Jersey. Oversized animals for the field we do not incline to.

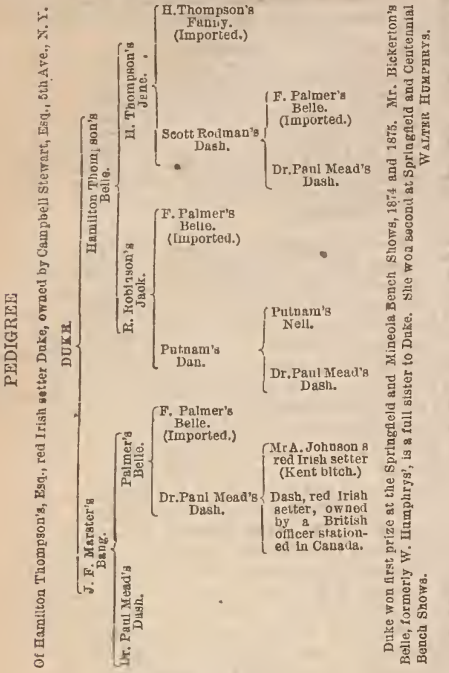
**PHILADELPHIA, Dec. 8, 1877.**  
In your notice of the Philadelphia Dog Show you class Echo as among the Brobdingnagian brutes, who, if not fast, are close and steady plodders. I find that is a prejudice against large dogs, but have yet to find that Echo's size is against him in any way. Have hunted him with some very fast dogs, but he always found the most birds in a day's shooting. For nose and stannohness he has no snuperior, and while he is not a very fast dog, is faster than the average, and no plodder. Was sired by Wardlaw Reed's Sam, who won first prize at Nottingham, Birmingham and at the Crystal Palace, 1869, '70 and '71, and was said by Ldstone to be the largest and most beautiful setter in England.  
Respectfully yours,  
WM. W. COLKET.

**LUMP ON THE SHOULDER.**—Mr. A. D. Boas kindly informs us of some cures made by him for dogs having lumps on their shoulders. Mr. Boas uses common black lubricating oil bathing and friction the lump with the oil.

—In our mention last week we should have said Mr. E. A. Spooner's Zos instead of Joe, as printed.

DUKE'S PEDIGREE.—Mr. Editor: Inasmuch as several gentlemen are at fault with regard to the pedigree of Thompson's "Duke," owing to certain inaccuracies in the pedigree as given in Mr. Burgess' American Kennel Book, I respectfully request you to print the following, which I vouch for as a true pedigree, having the original in my possession.

W. HUMPHREYS.



Duke won first prize at the Springfield and Mineola Bench Shows, 1874 and 1875. Mr. Bickerton's Belle, formerly W. Humphrey's, is a full sister to Duke. She was second at Springfield and Genevieve Bench Shows.

—Mr. Bickerton has sent his blood red Irish setter bitch, "Belle," formerly the property of W. Humphrey's, to Dr. Jarvis, Esq., champion red Irish setter "Elcho."

—Mr. M. P. McKoon, of Franklin, Delaware County, N. Y., well known for his choice breed of cocker spaniels, has recently purchased, in order to improve yet more his already good stock, the well known "Mollie." "Mollie," who is a dark liver and white cocker, has the following distinguished lineage: Whelped, Oct. 14, 1875. "Mollie" is out of "Topsy," by "Dash," "Topsy" was imported via steamer Idaho, Sept., 1874. "Topsy" is out of "Flora," by "Wallace."

CURE FOR PILES.—Harry McKenzie, of Boston, wishes us to state that he has tried all sorts of pile remedies without permanent benefit, with the exception of Leonard's Pile Ointment, which he maintains is infallible and permanent, and valuable alike for men and dogs. He disclaims any mercenary motive in recommending this ointment, not being even acquainted with the manufacturer. From the tone of our correspondent's letter we judge that he is wholly disinterested, and any service that may accrue from his efforts to benefit the suffering will no doubt be appreciated.

THE WESTMINSTER KENNEL CLUB.—The annual meeting of the Westminster Kennel Club was held on Friday evening last. The following officers were elected: President, Gen. Alexander S. Webb; Vice-President, C. De Bois Wagstaff; Secretary and Treasurer, Dr. William S. Webb; Board of Directors—Col. Legrand B. Cannon, Gen. Alexander S. Webb, C. De Bois Wagstaff, William M. Tilestone, H. Walter Webb, William F. Morgan, Dr. W. S. Webb, George De Forest Grant, Frederick Barnard; Managers of the Bench Show—William M. Tilestone, Dr. William S. Webb, C. De B. Wagstaff, H. Walter Webb, George De F. Grant. The next exhibition of dogs, held under the auspices of this club, will take place on the 16th and 19th of May, 1878, at Gilmore's Garden.

THAT UGLY DOG.—The dog which bore off the handsome goblet at the Nashville Exposition, offered as a special premium for the ugliest dog, has quite a remarkable history. He has been the guard at the jail for seven years, and during that time has not been outside the yard walls but three times, this being the longest time he was ever out. Though a remarkably ugly-looking dog; he is a thoroughbred, and one of the best watch dogs to be found anywhere. His master, Ambrose E. Camp, our worthy jailer, is proud and fond of him. He returned to his old quarters after the show, and the jail is safe.—Louisville Poultry Journal.

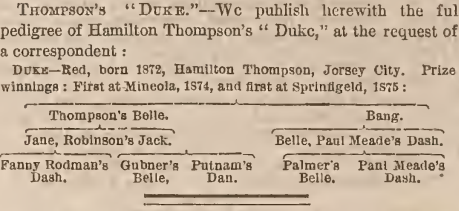
CARING FOR A GOOD DOG.—Millerstown, Butler Co., Pa., Dec. 3, 1877.—This place being on the oil belt, game is hunted very close; but by going away a few miles very good bags can be made. Three of us started out this morning, and by one o'clock had bagged thirteen quail, one partridge and one rabbit, when, unfortunately, one of the dogs was accidentally shot by one of the party. We then made a sling of a coat, and two of the party brought the dog home, a distance of five miles, while our humble servant carried three guns. Truly yours, J. A. W.

CHARLESTON DOG SHOW.—A bench show of dogs was held at Charleston, S. C., Dec. 10, 11 and 12. Among other notable dogs present were Gov. Hampton's Irish setters.

—T. Denmead, Jr., of Baltimore, claims the name of Spencer for his black and tan Gordon setter puppy, 6 mos. old, by Grand Duke II, prize winner at Baltimore Dog Show, out of Lucy. Lucy is by Mr. B. W. Jenkins, of this city, old dog Hero, out of same owner's Alice, both imported.

FINE IMPORTED DOG FOR SALE.—Last fall, when we were shooting around Brainerd, Minnesota, we had the good fortune to fall in with Capt. C. Messiter, an English sportsman, well known in America, who was going to Fargo, or farther West in quest of sharp-tail grouse. Now, on his return home to England, he proposes to dispose of his dogs, which accompanied him over his Western field. An advertisement of the same appearing in our last issue, Mr. Messiter writes to us personally: I would not part with them had I any further use for them. One of them is own brother to a dog which has won several times at the Crystal Palace Show and elsewhere, and the other is also very well bred and capital in the field. They will back one another any distance and range well; have very good noses and seek dead, though they will not retrieve.

THOMPSON'S "DUKE."—We publish herewith the full pedigree of Hamilton Thompson's "Duke," at the request of a correspondent:



LOST.—A setter dog, liver colored and white, answering to the name of Don, was lost by Judge Gildersleeve, on Wednesday morning on the corner of Broadway and Chambers street. Any information regarding him will be thankfully received, and a suitable reward given on his return to owner at Court House, 32 Chambers St., or 23 W. Forty-eighth St., N. Y. H. A. GILDERSLEEVE.

Game Bag and Gun.

GAME NOW IN SEASON.

- Moose, Alces macchis. Caribou, Tarandus rangifer. Elk or wapiti, Cervus canadensis. Red or Virginia deer, Caricacus virginianus. Squirrel, red, black and gray. Hares, brown and gray. Wild turkey, Meleagris gallopavo. Pinnated grouse or prairie chicken, Cupidonia cupido. Ruffed grouse or pheasant, Bonasa umbellus. Quail or partridge, Ortyx virginianus. Woodcock, Philohela minor.

"Bay birds" generally, including various species of plover, sand piper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets etc., coming under the group Limacolia, or Shore Birds.

MASSACHUSETTS—Wareham, Dec. 4.—Mr. Willard Lewis, of Rockland, built last summer a gunner's lodge on Boles Point, eastern shore of Sampson's Lake, South Cove, some seven miles from this village. Having covered the structure with evergreen boughs, he took up his abode there with his wife. The success of the pair has been unparalleled in this country. Last Friday, the lord of the manor shot 30 wild geese; one day this week he secured 14, and the total of his bags is up among the hundreds.

One day last week Mr. Philander Bumpus, who lives on the shores of this lake, secured 6. In fact, there are a score or more shootists around this lake, who daily get a crack at the voyagers from Belle Isle, who are winding their way southward. This lake seems to be a chosen haven of rest for the poor goose; and this season, above all others, has proved to be the last resting-place of hundreds of the tribe, to the glorification of the pleasure seeker.

Salem, Dec. 7.—Sporting matters are running quiet in our section just at present. One thing let me say: I did not shoot the quail spoken of by "Staunch." I own the bird, and saw it shot, but Mr. R. K. Patch, of Hamilton, is the man who did take it, and to him belongs the honor.

NEW YORK—Atlanticville, Dec. 8.—Broadbills are here by thousands; ducking was never better. A favorite house for sportsmen here is that of B. F. Squires, who furnishes board for \$1.50 per day, and battery decoys, man and boat \$5 per day.

South Bay, Long Island.—Water fowl shooting on the South Bay, Long Island, was never better. The birds are present in large numbers, embracing brant, broadbill, shell-drake and numerous other representatives of the goose and duck tribe.

Constantia, Dec. 8.—A correspondent of the Central Square News says: "Sportsmen, both on the lake and in the woods, are having their hands full this season. The immense flocks of ducks now in the lake give the hunter an opportunity to show his prowess in being a good shot. From early dawn till dark the ducks are kept moving. Partridge shooting still continues good."

Baldwinsville, Dec. 9.—On Monday a gray eagle was shot, measuring 7 feet 6 inches across the wings; from tail to beak, 3 feet, and weighs fourteen pounds.

Blomingsburgh, Dec. 8.—Still making fine bags of game. Partridges plenty; self and Millet last week killed 32 in three days' shooting, and one woodcock weighing nine ounces, a fine one. Shot a black snake on Dec 4, and have had snow on the ground. Who ever heard of snakes at this time of the year? MILO.

NEW JERSEY—Harrison, Dec. 6.—Cannot the game laws be made of some use? It seems they don't amount to anything. In the first place, game is allowed to be sold too long after the close season; thirty days after the close season is long enough to sell what game has been shot. By giving too long time it encourages the killing of game after the season. In Forresterburg and Sandbury, in Sullivan Co., N. Y. the pot-hunters have snared and trapped the partridges in large numbers. In Sandbury you can't find a partridge. H. E. R.

PENNSYLVANIA—Honeyer, Dec. 6.—The country around here formerly abounded in game of all the varieties usually

found in the Middle States, and bags of fifty and sixty quail per day were often made by two sportsmen in the years preceding the war, and in fact up to the winter of 1864, which winter proved particularly disastrous to quail. Still fresh in the mind of the writer is the result of one day's hunt, when 102 quail, besides several cotton tails, were emptied upon the bar of the Central Hotel, killed by Harry Kurtz and his friend P., of Baltimore; but, tempora mutantur, and now it is considered a good day's work to kill ten to twelve per day. I succeeded in bagging four quails and one rabbit on Thanksgiving Day, and nine quail on Saturday following, tramping over several townships, and missing only two birds in both days. The season ends December 15, and steps are already being taken by the sportsmen here to procure as many quail as possible to keep until the winter is over. BRUSH.

Clearfield, Dec. 5.—The local editor of the Raftsmen's Journal, with a party of friends, have been deer hunting on the mountains. Sam Bell, of West Clearfield, killed a fine doe last-week. The Journal says: "Of late there has been a very extensive pigeon roost in the northern part of Clarion county, near Newmanville. But owing to the continual shooting by the sportsmen the birds are exceedingly shy, though quite a number have been killed. Is it a mere coincidence that eight years ago and sixteen years ago there were similar roosts in the same neighborhood?"

Warrington, Dec. 8.—Turkeys, partridges and hares—thanks to statute law—have been exceptionally plentiful this season. One gentleman (Mr. J. K. M.), who delights in the dog and gun, in fifteen days bagged 242 partridges. In one day he killed 44 partridges, 1 pheasant and 3 hares. We presume he heads the list of amateurs.

Greenville, Dec. 10.—The Greenville shooting party, who are deer hunting in Osceola county, Mich., write to the Argus that they have killed fourteen deer. They break camp to-day.

VIRGINIA—Leesburg, Dec. 5.—During last four or five days four gunners have averaged about 16 quail apiece each day out. One gentleman killed 4 pheasants (grouse) in about an hour and a half near town. Weather warm and rainy. T. W.

SOUTH CAROLINA—Charleston, Dec. 8.—Both deer and turkey have been received in large quantities here this week, especially deer; some sixty odd having been received by private parties and at our public market. The last cold snap has brought down large flocks of ducks, and some capital sport is being had along the coast, and on the rice plantation over one hundred pair were brought in by last Pee Dee steamer. YENOTS.

FLORIDA—De Soto Grove, Banana River, Nov. 27.—Deer plenty; ducks in any quantity, but are little hunted on this side as there are more or less deer here at all times of the year. MOORE.

MISSISSIPPI—Corinth, Dec. 8.—I fear that there are very few quails, though I wrote you early in the season that they were seemingly plentiful. Subsequent observation has convinced me that I was then mistaken. GUXON.

TEXAS—Galveston, Nov. 30.—Ducks and geese are plentiful. The coast of Texas presents just now the best ducking grounds to be found.

WISCONSIN—Menasha, Dec. 3.—Fall shooting not as good as usual; ducks and wild fowl scarce; the deer are in great plenty about 30 miles north of us. S. L. H.

OUR REGISTER.—S. B. Dodge, Esq., of New York, sails this week for Florida, and will make his headquarters at Chrystal River. Mr. Dodge will be absent some four months, and would be glad to have the company of some gentlemen. As it is a country abounding with game Mr. Dodge expects plenty of fishing and shooting.

THAT PUZZLE.—Well, sportsmen are strong in mathematics. That fact is conclusively proved by the letters which come pouring in in response to the problem published last week. And not only do our correspondents send correct replies, but, like Oliver Twist, they call for more. The boy's game consisted of five woodcock, which cost him fifty shells, forty-eight blackbirds which cost him three shells, and forty-seven squirrels which cost him forty-seven shells; total, one hundred birds for one hundred shells. Now who can complain of the high price of woodcock in our market?

CAPT. BOGARDUS AT THE OLYMPIC.—For a debut without stage fright, this famous marksman made an excellent appearance on Monday night last at the Olympic Theatre. The Captain first had ten balls sprung in different directions, and broke every one. He then fired at eleven with a pistol, missing all but three, upon which the Captain remarked, "That he was not boss with the pistol, but was with the shot-gun." He then broke sixteen balls in one minute. On Tuesday last he broke thirty balls straight, making no misses.

WHO IS R. WAKEFIELD?

EDITOR FOREST AND STREAM AND ROD AND GUN: MONTREAL, CAN. The above question was asked by one of your correspondents at Whitehall, in your issue of October 4, and you gave a very correct reply. "R. Wakefield" is the trade mark I put on guns of English manufacture, and this, in conjunction with the Lion and Beaver and the monogram RBK between them, is registered at Stationer's Hall, London, England, and can only be used by myself. Craving your polite indulgence, I now ask you to permit me, through your columns, to state by what motives I was actuated in adopting any name as a trade mark, which was not my own. I don't make guns, I profess to be the architect, but not the builder. My guns are constructed after my own designs, and I employ builders, who will furnish the best work at the most reasonable price. Makers who are both the architects and builders of their guns, and who have deservedly earned an enviable reputation, may sometimes yield to the temptation of trading on their fame, and thus either furnish an article of mediocre merits at a price beyond its real value, or a really good article at a fancy price. My motives then are:—1. Not to be identified with, or tied to, any maker; 2. To be entirely independent of fancy prices; 3. To secure the best work at the lowest figures; 4. To employ such builders as are best calculated to satisfactorily construct the various classes of guns suited to all the wants of my correspondents. I hope your readers will have charity enough to refrain from saying that I must be some relative of the famous Captain Bragg, if I assert that I understand what a gun should be. I have handled a gun ever since I had strength sufficient to carry one, and I hardly like to confess how many years that is since. Thus, you will see, I do not labor to ou





A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INDOOR RECREATION AND STUDY:

PUBLISHED BY

Forest and Stream Publishing Company.

No. 111 (old No. 103) FULTON STREET, NEW YORK. (POST OFFICE BOX 2582.)

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, DECEMBER 13, 1877.

To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company. CHARLES HALLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

TO GERMAN RIFLEMEN.

Desirous of increasing the interest among our numerous German friends in regard to rifle shooting, the FOREST AND STREAM AND ROD AND GUN will present to the best team of twelve—team to be composed of active members of some shooting club—a gold medal, to be called "THE FOREST AND STREAM AND ROD AND GUN PRIZE MEDAL." The rules and regulations governing this match will be found in their appropriate place in our rifle columns. Entries may be made at the office of this journal on or before January 20, 1878.

As a great many of the leading riflemen of our N. R. A. of America are Germans, and as their school of arms was commenced under German auspices, we may venture to express the belief that the contest will be a spirited one, and likely to bring out the best shots in the country. The design for the gold medal is now in the artist's hands, and we will, as soon as practicable, have an engraving of the "FOREST AND STREAM AND ROD AND GUN MEDAL" produced in our columns. That spirited rivalry, which has lately existed between two famous clubs, may find in this medal a new source of friendly contest.

THE POST AND STATION SYSTEM OF FINLAND.—In a recent issue of FOREST AND STREAM we published an article from a prominent American resident at St. Petersburg, Russia, which introduced some reference to the post and station system of Finland, very generally correct in its statements, though not so fully so as to escape the attention of Mme. Selma Borg, the eminent lecturer and vocalist, who being a native of the country, has had the best opportunity to be well informed of the facts. We quote the subjoined extract from this lady's letter:

ACADEMY OF MUSIC, Philadelphia, Dec. 1, 1877.

Finland suffers under many heavy burdens, inevitable to a subjected country; among these the "Post and Station" system is one. Owing to the tardiness on the part of the Russian Government to keep its word and grant Finland its lawful representation by Diet, this system still exists, until the railroads now in operation, and others projected, shall partly do away with it, as the steamboat traffic already partly has done. Imagine the farmer obliged to pay a tax in form of regular provision of horses and men for the posts and for travelers. This pay is not worth mentioning, it is merely nominal, and thus these peasants sustain travel and the post for all who please to come and go at their expense. For that is what our post station system in Finland amounts to.

SELMA BORG.

VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.—No. 7.

By THE EDITOR.

DECEMBER 13, 1877.

GENTLEMEN: I have said several times that for travellers not pushed by stress of business, which vacation tourists are never presumed to be, the journey from Grand Rapids, Michigan, to Milwaukee, Wisconsin, is far more enjoyable by steamer than by rail. Jotting down incidentally in my last letter a few of the objects of interest to be seen in the forty miles' run by rail from Grand Rapids to Grand Haven, you will remember that I had placed myself and luggage on board the Transportation Company's huge steamer Amazon, and steamed out of port upon the broad waters of the lake. It was midnight and calm. All on board were in repose, except the watchers and the ponderous machinery. The motion of the great engine was almost noiseless; its pulsations and deep breathings came so regularly that it seemed asleep, but active, like some giant somnambulist with his functions in full but unconscious play. And all the passengers slept on securely without apprehended gale or fear of hidden shoals, and enjoyed their undisturbed rest until the morning twilight dawned. With its first gray, and afar out at sea, came little buntings, sparrows and warblers circling about the vessel, perching upon the rigging and hopping about the deck. Good luck to scamen do these feathered attendants always bring, and the woes of the Ancient Mariner certainly await the unhappy man who wantonly harns a filament of their innocent heads. So the sailors say. Presently the sky began to redden in the east, and the watery horizon grew lurid; and out of his bed of crimson and yellow, beside the limpid lake, Pæbus arose, and all the surrounding water was irradiated. All ruddy and aglow from his early bath, he set forth on his daily round, warming to his work like a lusty pedestrian, and making a straight push for Milwaukee, where he arrived at 9 A. M., beating the Amazon by an hour!

Long before we reached the port, the white walls of the beautiful city could be seen gleaming in the sun, one-half resting like Venice on the sea, the other apparently rising in terraces up to the crown of a cliff, where spires, domes and broken ranges of buildings gave charming effect by the variety and beauty of their outlines. As we near the shore, the vessel enters a belt of discolored water which the eye can follow into the embrace of two parallel piers, whose ends are guarded by twin lighthouses. This is the debouchure of the Wisconsin River, tinged and saturated with the dyes of hemlock, spruce and tamarack, that grow in the swamps and ridges of the "Big Woods," hundreds of miles inland, whither we are bound. Its coffee-colored path is as distinct from the clear green of the lakes as the milky way is from the blue of the heavens. If not a path of light, however, it is a path of abundant commerce and a royal road to wealth, leading right into the heart of the city like the great arterial channel which it is, whose pulsations are felt to the extremities of the continent. Great warehouses enclose the huge steamers as they lie at the wharves, stuffing them with cereals of all kinds with the merciful tenderness of assiduous nurses, until distended satiety creates glut in the market, and excess of production returns to plague imprudence. Milwaukee's purse is most always full. Like the beak of an octopus, it lies in its central portion, which is splendid with edifices of cream-colored brick and variegated stone, and empties itself into the spacious suburbs, where its retired millionaires and well-to-do merchants live sumptuously, but not ostentatiously, surrounded by shrubbery, flowers and embellishments, numerous, natural and artificial. The private residences of Milwaukee are certainly most attractive. They are chiefly found upon three or four avenues, the principal one bordering the lake, along which there is a superb drive over a macadamized road, with pleasant places of resort for visitors along the route. My friends of the rifle club drove me over as much of the city as my short visit would permit, and seemed to be pleased with the happiness I enjoyed. They were glad because I was glad, and I was glad that they were glad that I was glad. So we were all glad.

The members of the Milwaukee Rifle Club comprise some of the best sharpshooters in America, whose scores are already recorded. They are emulous rivals especially of the Rifle Club of Chicago with whom they have frequent trials of skill and interchanges of social courtesy. Their range is admirably adapted for practice and replete with comfort and convenience for contestants. There is also a pleasant park near the city for pigeon contests. I will say nothing in fulsome adulation of Milwaukee or her citizens, but I can say truthfully that she deserves her title of "Queen City of the West." I would have tarried longer within her hospitable and tree-embowered precincts, but my friends Pratt and Phillips of the West Wisconsin Railroad, were telegraphing me from the Chequamegon House at Ashland, to come up to Lake Superior before the trout season closed. So I bade adieu to valued friends, promising to return. That promise, however, lies tabled for next year.

Twenty years ago I spent a considerable time in the western portion of that section of Wisconsin which has since been penetrated by the West Wisconsin Railroad, which crosses the State from east to west near its middle line. Until last summer this was the frontier railroad; little but forest lay to the north of it. Through that forest clear streams of delightful coldness flowed, and it was no task to take trout out by the hundreds for each day's fishing. Neither was it an

isolated case to be interviewed by a bear while wading a stream with my rod. The brutes would come down to the water side to drink in the mid-day heat. Deer were most abundant, and old Starkweather, the hunter, whom I mentioned in my "Fishing Tourist" as having met while he had his cabin in Potter County, Pa., used to say that he believed there were two hundred bear and five hundred deer within a radius of five miles from his cabin on the "Menomen." That was a great country for pelts in those days. Starkweather moved out there because he was crowded out from Potter County; but now it is more settled and civilized around the Menomen than Potter County ever was. Perhaps it was curiosity to see what was to be found in the unbroken forests beyond and to the northward of so generous a region that induced the projectors of the Wisconsin Central Railroad to push their line into its territory. For many years a railroad had been in operation from Milwaukee to Stevens Point, a busy, thriving lumber *entrepot* on the very frontier of civilization. Along its route were many flourishing cities and towns, and the daily trains rumbled along the shore of pleasant Lake Winnebago with its many lacustrine villages, penetrating into the interior, and picking up business here and there at numerous way stations until, as we have said, they halted at Stevens Point, 165 miles northwest of Milwaukee. This was the *ultima thule*, as St. Louis was once; and here, just as there, trappers and Indians brought in their pelts, and outfitted again for the woods. Great drives of logs came down from the upper waters of the Wisconsin and the humble houses of the employes clustered around the many mills that whipped the logs into lumber with mechanical celerity. Lodging houses and grogeries were numerous, and the din of fiddling and double shuffles was heard in the pipe-beleaguered and smoke-stained rooms. Not altogether changed is Stevens Point of to-day, for it was only on the 1st of July, 1877, that passenger trains, with their motley complement of prospectors, homesteaders and sightseers, reconnoitered into the wilderness beyond. But Stevens Point is no longer the frontier. The frontier now lies on the romantic shores of Lake Superior, and a goodly line of settlements has sprung up all along the intermediate route. The railroad schedule indicates no less than twenty-four towns between the two termini, which are 186 miles apart, making the entire distance from Milwaukee to Ashland 331 miles. These twenty-four towns no doubt have a future. Some of them have no present.

Several are represented by a row of one and two-story frame buildings, which were grogeries in full swing when the road was being constructed, but are now deserted. There is not a germ of life or growth in them. Frequently, a lumber mill, with its surrounding eabius and store, has already formed the nucleus of a considerable community. There are a few clearings that promise to be goodly farms. Two or three towns already have populations of a couple of hundred or so. Comparatively speaking, much has been done; the resources that have been already developed are sufficient to invite the attention of immigrants, and give encouragement of a rapid future settlement. But the whole country is new, and therefore offers to the sportsman and tourist novelties of experience and sight-seeing that he will not find on older roads. Halting at most any given station along the route, it would not be difficult for a good woodsman to secure a bear or deer at short notice. There are many lakes and streams which afford good fishing. Beyond the town of Phillips the entire route is through a succession of swamps and forests of primitive growth. Piles of bark are encountered at intervals; huge logs recently cut have been hauled out to the roadside; pelts of coons, bears and wildcats are stretched upon the sides of the cabins; Indian hunters stand statue-like on the edge of the forest and peer at the train as it passes; an occasional hound or well-made pointer or setter indicates some interest in sport. But for the loss of voluminous notes and memoranda, I could specify many localities by name which invite the attention of the angler and gunner. Of birds there are pigeons and ruffed grouse in abundance. Butternut Creek, which connects two lakes filled with large pike and muscalonge, is a favorite resort for the guests at Ashland. It is fifty-four miles distant. One can go down in the morning of one day and return on the evening of the next, finding tolerable lodgings in a frame-house at the creek. As I passed through, a business car stood on a siding, which had been chartered by a Chicago party who were fishing in the lakes. This car afforded every convenience for camping. Between Butternut Creek and Ashland are some expensive iron bridges, and much labor has been expended upon the road-bed. In this region are many fine trout streams, as well as waters that abound in muscalonge, bass, pike and perch.

The attractions of Ashland and vicinity more than compensate for the tedium of what would otherwise seem a long and monotonous journey. It is a relief to emerge from the gloom and tangle of the sombre forests into the open fields and pleasant lines of houses that border the broad Chequamegon Bay. A modern omnibus takes the tired traveler from the station to an inviting hotel of modern construction, whose broad piazzas overlook the bay. Spacious rooms invite rest, and an abundant table is provided for the wayfarer. In the uncertain light of the fading day we can scarcely discern the surroundings, but we feel that they are pleasant; and so we retire for the night, with feelings that our anticipations are to be satisfied, and that the coming day will fulfill the promises that have been held out to us.

I leave for a subsequent letter some description of the sport that can be found at this new and really charming summer resort.

HALLOCK.

The Rifle.

MEETING OF THE N. R. A. DIRECTORS

A special meeting of the National Rifle Association was held on Nov. 10th, Judge N. P. Stanton, the President, in the chair. The board went into a Committee of the Whole, and Hon. D. W. Judd took the chair to complete the investigation of the charges against Gen. F. F. Millen for disobedience of the orders of the Superintendent of the range at Creedmoor. After testimony was heard the board went into executive session, when a resolution was adopted providing that as Gen. Millen had been guilty of "misconduct upon the range," and that as the misconduct had been likely to endanger the welfare and character of the association, his membership was forfeited.

The range committee did not vote.

The resolutions were as follows:

*Resolved*, That Gen. Millen has been guilty of misconduct upon the range of the Association.

*Resolved*, That the said misconduct being likely to endanger the welfare and character of the Association, the membership of said Gen. F. F. Millen in the Association is declared forfeited, as provided in Rule 7, Art. IX. of the By-Laws, which provides that,

"Any member whose conduct shall be pronounced by vote of the Board of Directors to have endangered, or be likely to endanger, the welfare, interest or character of the Association shall forfeit his membership.

The next task of the Directors was a far more agreeable one, as under the leadership of Gen. Shaler, the whole board proceeded to the Astor House, where, in a private parlor, an elegant piece of work in illumination and script showed the care which had been taken in preparing the engrossed resolutions to be presented to Gen'l Woodward in recognition of his services on behalf of the association. The work was of a much higher grade than the usual black-ink pen flourishes so familiar in engrossed resolutions. The conventional mode was not entirely dropped, but the merits of color and the advantages of a chase treatment were recognized, and carried out in the beautifully framed work of art before them. As the Board and guests gathered in the little parlor, Gen'l Shaler did the graceful in the presentation lines, and said:

GEN'L WOODWARD.—You will remember that shortly after you retired from the office of Vice-Pres., the Directors expressed a desire to convey to you in some appropriate manner their appreciation of your services to this Association from the date of its organization. In pursuance of that desire, they appointed a committee, which I have the honor to now represent, to draft and present to you suitable resolutions. The Committee could not hope to more than partially express in the resolutions the obligations which the riflemen of America, as well as your associate directors, were under to you for the aid you contributed in giving character and permanence to this favorite amusement, and we trust that your estimate of our personal esteem will not be measured by so imperfect a standard as these resolutions furnish—but such as they are, we present them to you with the hope that, while they fail to express our sentiments as fully as we might wish, you will receive them, and give them a place in your home where your family and friends may, in time to come, as well as the present, learn by them that your associates were not entirely unmindful of the services you rendered in permanently establishing rifle shooting in America. And if their perusal shall be the means, in the slightest degree, of encouraging others in the exercise of those noble qualities of honesty and uprightness which have been, and are, so conspicuous in your character; or if, in after years, you shall find in them a reminder of pleasant associations, then this testimonial shall not have been prepared in vain.

Mr. President and gentlemen, your committee now propose the health of Gen. John B. Woodward. May he long live to enjoy the respect, the esteem, and the love of friends no less than those which now surround him.

And then, when the champagne had duly trickled down all the throats present in honoring the toast, Gen. Woodward briefly responded, as follows:

GEN. SHALER AND GENTLEMEN.—You are too well acquainted with me to know that I shall be able to give expression to my feelings of gratification in having been esteemed worthy of being the recipient of this beautiful testimonial; and I esteem not less highly the pleasant words with which it has been accompanied.

I cannot fail to cherish this testimonial most deeply. I feel, however, that it comes to me too much undeserved. (No, no.) While I have been associated with the National Rifle Association from its beginning, it has always been in a very humble capacity. I shall look back—as some of you can—as having been one of the exemplars of rifle shooting in this country, and, I might say, in the world. The grounds at Creedmoor bear witness, in their arrangement, ornamentation and preparation, to the care and fidelity, the hard working zeal of Gen. Shaler and other members of your board. However, I can claim that, during the fall and spring meetings, I have striven to conduct them in such a way as to redound to the credit of the Association. I shall cherish the names inscribed upon the parchment because I have known you all so well. I can only say, in conclusion, that I cannot say what I ought to say in this connection.

The text of the testimonial read as follows:

*Whereas*, Major General John B. Woodward was one of the Incorporators of the National Rifle Association, and has since the date of its organization been an active and valuable official therein, filling with honor and credit to himself, and with great benefit to the Association, the responsible offices of Treasurer, Vice-President, Chairman of the Finance and Range Committee, and Chief Executive Officer at important prize meetings; and

*Whereas*, in the discharge of the varied and arduous duties of the positions above named, and in his intercourse with the officers and members of the Association, Gen'l Woodward has constantly exhibited the rare qualities of a zealous, competent and faithful official, combined with a courteous and gentlemanly demeanor toward all; and

*Whereas*, General Woodward has, by the energy and ability displayed in rendering his voluntary services, greatly en-

shores of Long Island. These nets have gradually increased in number, and the supply of fish has as steadily decreased, until now pounds are to be found everywhere, and the angler for sport and the angler for food each spends his time for naught. The Commissioners of Fisheries, in their reports to the Legislature, severely condemn the use of pounds. In their report for 1870 they state that *pound nets exhaust the waters in three years*; that they are generally owned by men of means, who know by experience that at the end of three years they can get no more fish in the locality that they have occupied; they thereupon sell their nets at a reduced price to poor fishermen, and are willing to accept a mortgage in part payment; but the nets are old and worn, the fishing is destroyed, and bankruptcy comes upon the deluded purchasers. They state that the Canadian Government has been compelled to prohibit the use of pounds on the northern shore of Lake Ontario. In their report, dated Feb. 1, 1875, they use the following language:

The destruction wrought by pound nets has been apparent wherever they have been introduced. By their use our larger lakes even have been depopulated of the myriads of fish which once inhabited them. \* \* \* Even the ocean itself cannot meet the ravages it (pound-net fishing) causes, and wherever pound-nets are established the inevitable consequences follow in but a few short seasons. In Canada, where special pains have been taken to restore the salmon fisheries, they have been utterly prohibited, and if we would save our fisheries we must follow this lead. \* \* \* The natural yield of woods and waters in game and fish is a heritage of the whole people, and ought not to be appropriated by any set of individuals. \* \* \* Measures invented to carry on a trade which is deleterious to the community are never sacred, and money so invested has no security except in the long suffering of a patient and sorely tried public. \* \* \* None (fish) escape out the very few who follow the exact centre of the channel. Not enough are left to keep on the breed; the habits of spawning are directly interfered with, the fishing begins to deteriorate. It never lasts but a few years, and as the close closes that entire section of water absolutely bare of fish, dependent upon accident or the laborious efforts of man for its possible restoration.

Again, in the same report, they say that fish have spots that they frequent, and when a locality is once stripped of fish it remains barren for a long time.

Hence the destructiveness of pounds. Where only a few fish are left their natural enemies prevail against them and destroy the last remnant.

Further on they say that a few men, not over thirty in number, threaten the fisheries of Great South Bay, on Long Island, by pounds; and that if the pound men are allowed their way a serious blow will be dealt to the interests of the counties of Queens and Suffolk; that each net will capture, on an average, nine tons of fish per month; that the nets are worked for six months, and nearly two millions of pounds of fish are thus taken in a season by thirty men.

Will you wait until the probable fate of Queens and Suffolk overtakes you? Will you wait until your exhausted waters are left upon your hands a barren possession. Or will you act now and save the estate which nature has given to you?

Weakfish form the staple for summer fishing. They will not bite at a hook until they have spawned. Immense numbers of them are caught every spring in the pounds while they are running past your shores and up the rivers to deposit their eggs. The sport of angling for them is becoming poorer each year. They will soon cease to be found here unless you protect them. The experience of other places will surely be your experience unless you act wisely, and apply the ounce of prevention before the necessity arises for the pound of doubtful cure. Barnegat Bay has suffered from the depredations of these nets, and Mr. Kinzey, of the Ashley House, under date of Oct. 31, 1877, writes:

I fully expect your bill, abolishing all nets of any description, to pass this winter; even owners of nets in the village of Barnegat are in favor of such a bill. They own yachts, also, and in summer make large wages by taking out fishing parties. By figures and the decrease of their business, their interest has been ascertained.

In the spirit of intelligent self-interest this appeal is made to you. Your united voices are required for your protection.

On behalf of Excelsior Fishing Club—President, Lawrence R. Kerr; Committee: Albert E. Cochran, Peter J. Hickey, John Lalor.

On behalf of Walton Fishing Club—President, David Banks; Committee: Charles Plum, Jr.; L. De G. Brooks.

December 1, 1877.

A FEW TIMELY HINTS.—The following communication will receive especial notice from our readers:

*Editor Forest and Stream*—I have just finished reading a letter in *Turf, Field and Farm*, in which the writer lays the blame of the scarcity of game on the sportsmen rather than want of game laws or lack of their enforcement, and defends the farmer in the practice of netting. We all, I presume, are rather near sighted in these matters, and apt to blame every one but ourselves. There is no question but that the more game there is killed, whether by trap or gun, the less will be left; and no doubt many so-called "sportsmen" make no limit to their killing, and are never satisfied no matter how large the bag, but kill for the sake of large numbers. I have met many such, particularly when angling. With us near New York, the greatest trouble I find is the fact that so many, while out shooting woodcock, kill both quail and grouse, so that the law-observing sportsmen find the berries all broken up when the time comes to shoot them. It is impossible to prevent it as long as we have the odious summer woodcock shooting. Nine out of ten sportsmen profess to think it no pleasure to shoot woodcock in hot summer weather, but do it because they are afraid some one else will kill them if they do not. I have had much experience in trying to enforce game laws both in New York and New Jersey, and believe the following plan would increase our stock of game, viz.: Do away with summer woodcock shooting, or, if absolutely necessary, have only two weeks of it in July. Then have no upland shooting until Oct. 1. Sportsmen would not take advantage of it to shoot quail that are too small. As it is, law or no law, poachers will shoot them when out for woodcock. If there was no ruffed grouse woodcock or shooting before Oct. 1, there would be no excuse for any one to be seen with dogs and gun, and the quail would be the gainers. There should also be a State Game and Fish Commissioner, who should have power to bring suits in any part of the State. He at least would have no fear of having his barns burned, etc., and would be a great check on the killing and transporting of game out of season.

Yours truly, W. HOLBERTON, President Hackensack Association for the Protection of Game and Fish.

THE LEAVITT SALE OF RARE BOOKS.—We give a few of the prices of the most remarkable books sold by the Messrs. Leavitt last week: Belloni de Aquatilis, 1,538, \$11; Blome, Gentleman's Recreations, 1686, \$19; Oppian's Halieuticks, 1732, \$5; Ronald's Flyfishing, \$7; Scrope, \$10.50; Walton and Colton, \$5; Yarrell, \$5.

AQUARIUM—THE MISSING LINK.—The enterprising managers of the Aquarium have added a new attraction to their exhibition. They have secured the service of the Missing Link, whatever that may be. This Link is a huge stone semblance of a man, which comes from Colorado, not unlike in contour of head to some of the Egyptian figures. Without going into the exact measurements of the head, we may declare that the Link has a tail some five inches long. Sculptors who have examined this strange figure declare that the properties are quite perfect, that is, as far as they (the sculptors) may have acquaintance with the prehistoric man. Darwinists are in ecstasies of delight at the positive and undisputable evidences of a tail. Some time or other, say a myriad of years before this figure was made, perhaps man enjoyed a much larger tail, with which he swung himself about from tree to tree. Of course individuals so blessed, when they were forced to sit down had to carry with them a little bench with a hole cut in it, so that all might be snug and comfortable. If the Niams-Niams are said to have elongations of the spine, why may not the present figure represent past development? It may be remembered that in an early volume of the FOREST AND STREAM the existence of a negro woman with such a caudal embellishment was stated, and the source from whence the information was derived could not be doubted. The only thing which we may be skeptical about in this figure, is whether it be the petrification of a human being. That is a conclusion which we see no reason to accept. That it may be the representation of a figure or deity fashioned by some race long past away is the more probable solution of this question.

GAME PROTECTION.

—The New York Association for the Protection of Game and Fish inaugurated its winter series of monthly meetings last Monday evening at the residence of its President, Clinton Gilbert, Esq., No. 20 West 10th street. There was a fair average attendance, but the amount of business brought before the society was not great, considering the long interval since its previous regular meeting in April. The Secretary reported progress on suits brought by it against violators of the game laws. A letter from W. S. Blunt set forth that the unlawful shooting of game and song birds is being extensively practiced in the vicinity of Bay Ridge, L. I., the remedy for which is fully provided for in the statute. Mr. Everts' experiment in introducing migratory quail was reviewed and commended, and success wished to his undertaking.

THE EXPORTATION OF QUAIL FROM NORTH CAROLINA.—As many persons are sending to North Carolina for quail (partridges) we publish an act of the General Assembly of that State prohibiting the exportation of these birds:

CHAPTER XXXIV.—*Whereas*, As observation and experience in other sections of our country have shown that the insect-destroying birds afford material protection to grain crops; and whereas, the exportation of quails or partridges from the tier of counties along our railroad lines is likely to exterminate that beautiful and useful species of birds, therefore,

SECTION 1. The General Assembly of North Carolina do enact. It shall be unlawful for any person or persons to export from the counties of Catawba, Rowan, Guilford, Alamance, Rockingham, Orange, Iredell, Davie, Gaston, Columbus, Davidson, Anson and Forsyth any quails or partridges, either dead or alive.

SEC. 2. Any person violating the provisions of this act shall be guilty of a misdemeanor, and upon conviction thereof before any Justice of the Peace, shall be fined not exceeding fifty dollars nor imprisoned more than thirty days for each offence.

SEC. 3. This act shall be in force from and after its ratification.

Ratified the 6th day of March A. D. 1877.

UNLAWFUL SHIPMENT OF GAME TO ENGLAND.—We invite the attention of our local clubs and also of those in the West to the subjoined communication of our correspondent E. H. The subject should receive investigation and prompt action:

I wish to call the attention of American sportsmen to the fact, which came under my personal observation, that thousands of prairie hens, and also a large number of American quails, were sold in the poonters' shops in London and in other large towns in England this year during the months of February, March and April, and as late as the middle of May. The birds are sent monthly in barrels, are generally in prime condition, and retail at from two to three shillings each (fifty to seventy-five cents). It would be an easy task to find the shippers of the birds so that they could be made examples of. Let the Sportsmen's Clubs of the Western States keep a sharp lookout for the offenders. I trust that this warning may open the eyes of American sportsmen to this wholesale violation of the game laws of every State in the Union.

FOR THE PROTECTION OF FISH IN THE PROXIMITY OF NEW YORK.

We publish the following circular, issued by the Excelsior and Walton Fishing Clubs:

To the People of Richmond County:

The time was when the anglers of New York and New Jersey came to your shores to fish, knowing that they would not be disappointed; but of late years they have spent their money among you and returned empty-handed. Without encouragement they will not come again. New York Bay and the Hudson River, Raritan Bay and the Raritan River, were formerly swarmed with fish. These rivers and bays, and the neighboring estuaries of the sea, are the running and spawning grounds of sea fish, from the diminutive porgy to the lordly salmon. Along the different lanes, and to the little rocks and crannies of the bottom of these waters, came all the edible fish familiar to us, each year, with the advent of spring, to increase and multiply, and to return the year following, young and old. Then, he who angled for pleasure, and he who angled for profit, and he who angled for his daily meal, each found rich return. All this may again be. About thirty years ago the first pound net ever used was set upon the

couraged the introduction of rifle shooting as a popular and gentleman-like outdoor pastime among the American people...

After a few more bumpers were taken, during which the Board resolved itself into a very friendly squad of art critics...

Judge Gildersleeve, Chairman of the committee, made a majority report that the by-laws adopted by the incorporation...

TEAM SHOOTING

FOR THE "FOREST AND STREAM AND ROD AND GUN" MEDAL. Under the following conditions this journal proposes presenting to the best team members...

RULES AND REGULATIONS.

- Each team to consist of twelve men; ten shots per man. Shooting, off-hand, distance, 200 yards, any rifle; open to all clubs or associations.

Table of scores for Massachusetts-Boston, Dec. 10. Lists names like W H Jackson, William Poland, A H Hebbard, J Wemyss, Jr., H Tyler, Salem Wilder with their respective scores.

CONNECTICUT—Willimbrook.—The Connecticut Rifle Association held what proved to be the final contest for the Champion Mid-range Badge for 1877...

CREEDMOOR, Dec. 8.—The only contest was that of the Irish-American Rifle Club. The conditions were:—Open only to members of the Club...

—The New York Schutzen Corps have established a new club for practicing this winter in Zettler's rifle gallery.

CONLIN'S GALLERY.—The third competition for the Marksmen's Badges which took place last Monday evening, Dec. 10th, was better attended than either of the previous ones.

The fourth competition will take place Monday evening, Dec. 17. All comers, are invited to participate.

Table of scores for CONLIN'S GALLERY. Lists names like P Penning, A G Howitt, Dr. Dudley, M L Kiggs, Wm M Farrow, S W Sibley, N O Donnell, Frank H Lott, F H Holton, A G Wettle, N B Thurston, P Howard, Wm H Dunlap.

YORKVILLE RIFLE CLUB, Dec. 8.—Paulling match, 100 yards, reduced Creedmoor target, four inch bull's-eye, Washington Park, Mr. J. R. Grohman carrying off the revolver for the first time:

Table of scores for YORKVILLE RIFLE CLUB. Lists names like J R Grohman, Rm Sp Hie, P McMorrow, J J Keilly, J L Paulling, A S Smart, W W Dodge.

GENERAL RIFLE MATTERS IN NEW JERSEY AND AT HOME.—New Jersey is to have a State rifle association, with headquarters at Elizabeth.

The insurance companies have a number of similar clubs, and challenges are circulating quite furiously. These matches generally take place after office hours.

—A new club was recently formed under the title of the New York Rifle Club. Mr. C. E. Blydenburgh, of the American team, was chosen captain...

Table of scores for BUFFALO.—MARKSMAN'S GOLD BADGE CHAMPIONSHIP OF BUFFALO. Lists names like Kirchemeyer, Collins.

UTAH—Salt Lake City.—Some excellent shooting has lately been done by members of the Pioneer Rifle Club, who a short while ago had a successful off-hand competition...

SHOOTING MATCH OF THE SHARPSHOOTERS' UNION.—The shooting programme of the third shooting match of the Sharpshooters' Union of the United States of North America, to be held June 16 to 24, 1878...

THE AMERICAN TEAM PORTRAITS.

MAJOR-GENERAL THOMAS S. DAKIN. Major-General Dakin was born in the State of New York. General Dakin was among the very first to take up rifle shooting as a science...

CHARLES E. BLYDENBURG. Mr. Blydenburgh is among the youngest of representative riflemen. A recent graduate of Princeton College, he imbibed at college a liking for rifle practice.

LESLIE COMBS BRUCE. Mr. Bruce was born in Lexington, Kentucky, and is about twenty-six years old. Mr. Bruce's grandfather is General Leslie Combs.

LAWRENCE WEBER. Mr. Weber was born in Buffalo, N. Y., and is now about forty-two years of age. Mr. Weber's weight is about 150 pounds, and he stands five feet ten inches high.

a rock, and he is always among the most reliable of riflemen. His brilliant scores have been brought about by hard work, combined with good judgment.

Score at 800 yards, 143; 900 yards, 144; 1,000 yards, 184. Total, 421.

ISAAC LEROY ALLEN.

This gentleman is a New Yorker, and is now in his thirty-seventh year. In rifle shooting he now occupies a most distinguished position. In coolness, absence of flurry and readiness he has no equal. His build is slight, but he is well put together, and has clear blue eyes. Mr. Allen's position the recumbent one, with the butt of his rifle under his arm, his left hand grasping his barrel.

Score at 800 yards, 141; 900 yards, 139; 1,000 yards, 139. Total, 419.

HERBERT S. JEWELL.

Mr. Jewell, like the majority of the team, is a New Yorker, and is to-day about thirty-three years of age. In height Mr. Jewell is some five feet six inches, weighs about 150 pounds, and has blue eyes, with light hair. Mr. Jewell is Major of the Second Division N. G. S. N. Y., being Inspector of Rifle Practice. Mr. Jewell's labors in rifle shooting have been long, and the position he has assumed among leading American riflemen is due to steady practice.

Score at 800 yards, 143; 900 yards, 131; 1,000 yards, 145. Total, 419.

FRANK HYDE.

Mr. Hyde was born in Connecticut, and has a height of five feet six inches, weighs 220 pounds, and is about thirty-two years of age. Mr. Hyde was once engaged in journalism, and when the civil war broke out, enlisted in the fifth Wisconsin Volunteers. Mr. Hyde has had a good deal of practice, and is counted among our stadiest shots. Very cool and deliberate, misfortune has no effect upon him. Mr. Hyde's scores are invariably excellent, and he can always be relied upon for a high average at all distances.

Score at 800 yards, 143; 900 yards, 133; 1,000 yards, 133. Total, 414.

W. H. JACKSON.

Mr. Jackson entered the service of the United States, April, 1861, as Lieutenant in the First Battalion of Infantry, which afterwards became the Thirtieth Regiment Massachusetts Volunteers. For personal bravery Lieutenant Jackson was promoted to a Captaincy. In December he took part in the engagements at Winchester and Sugar Mountain, at Rappahannock Station and Thoroughfare Gap. Mr. Jackson was discharged for disability in March, 1863, and returned to his profession of civil engineer, going to Colorado in 1864. Returning to Boston in 1863, he has ever since been engaged in engineering duties. Mr. Jackson first commenced rifle shooting in the spring of 1876, at 200 yards, off-hand. His long-range practice only dates from the spring of 1877. Mr. Jackson is six feet and one-half inch in height, and weighs some 215 pounds, has dark hair and dark eyes. His age is about forty-five. His physique is superb, and Mr. Jackson is among our stadiest riflemen.

Score at 800 yards, 139; 900 yards, 135; 1,000 yards, 133. Total, 407.

WHERE WE DIFFER FROM COL. PEEL.

We beg to call attention to some oversights in Lieut.-Col. C. L. Peel's letter of the 8th October, which we copied from the *Volunteer Service Gazette*, and which letter appeared in our last issue. The gallant executive officer of the English N. R. A., we are pretty sure, makes several mistakes in this paragraph. Perhaps Colonel Peel was wrongly informed:

They (the Americans) load their cartridges on the ground, inserting the bullet, which has a lubricated paper wrapper, but no wad, very slightly (1-16th of an inch only) into the shell. Old shells are considered the best until they get out of shape. Some men prefer, for match purposes, those that have been used twice, others thrice; and some, I understand, use the same shell over and over again.

In the first place, as a rule, ninety-nine times in a hundred cartridges are not loaded on the ground. The bullet has not a lubricated paper wrapper, it is the barrel which is lubricated, and not the paper. Again, Col. Peel says there is "no wad." In the International match Messrs. Jewell, Blydenburgh, Allen, Bruce and Hyde all used wads, and always use them. Again, Colonel Peel says, "Old shells are considered the best until they get out of shape." The opinion of all the leading American riflemen is that new shells are the best. We have not just now the opportunity to find out how many of the team used old cartridges, as some of the gentlemen do not reside in New York; but we are quite positive that those using old shells were very much in the minority. We know that Messrs. Jewell and Blydenburgh used new shells. The best shooting with a Remington is supposed to be brought out with new shells. But a Sharp can use old shells. Mr. Allen did use old shells. The use of old shells is rather exceptional than general, where great accuracy, as at a match, is wanted.

We think it is Mr. Rugby who says that the American breech-loader is a kind of hybrid arm, loading at the muzzle. We suppose this statement has its origin in the fact that Mr. Webber did load in this way at the muzzle. The reason for this was because Mr. Webber had had no time to prepare his cartridges.

We advance these statements with no idea of finding the least fault with Colonel Peel's admirable letter, but so that we may throw all the possible light we can on the subject. If ever a new match takes place, which we sincerely trust may happen, we want our gallant adversaries to be fully informed

on every point. The question of *dirty powder*, very much commented upon by English experts, is truly stated. We do use, and purposely, a slow burning powder, which leaves its traces behind in the barrel. And why? Because it not only produces the best effects, but is cheap. It makes no matter of difference in our breech-loading system what kind of powder is used, because, with a great deal of practical good sense, our breech-loading rifle manufacturers make arms which can be easily and thoroughly cleaned. Absolutely accurate scientific rifle shooting, in which we excel, necessitates one system of loading with peculiar charges, while a military arm wants something else. Our breech-loading military arms, we can inform Colonel Peel, can be fired an indefinite number of times, and are made on the same principles as the Remington and Sharps; and they never clog. We do not entertain the idea that American target rifles have any lower trajectory than the Rigby or Metford, but we do believe that the improved Springfield rifle, such as are furnished to our regular army, has a *lower trajectory* than the arms used by the British Regulars. Certainly our ordnance officers think so, and have published statements to that effect, not in so many words, but in their reports on the various trajectories made by the different rifles used in foreign service.

Sea and River Fishing.

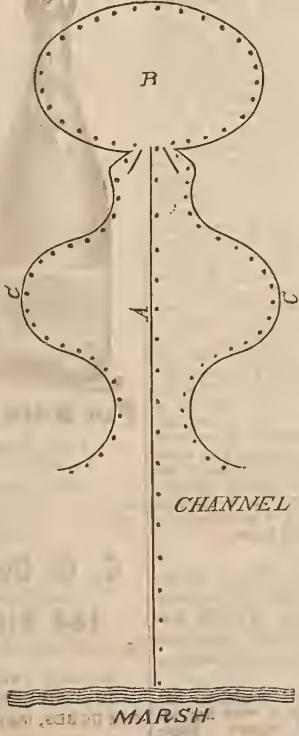
FISH IN SEASON IN DECEMBER.

Black Bass, *Micropertus salmoides*; Yellow Perch, *Perca flavescens*.  
*M. nigricans*. Sea Bass, *Scaenops ocellatus*.  
 Pike or Pickerel, *Esox lucius*. White Perch, *Morone americana*.

FISH IN MARKET.—Bass, large, 25 cents per pound; small, 20; smelts, 20; bluefish, 15; salmon, frozen, 30; mackerel, 30; shad, \$1.50 cents each; weakfish, 15 cents; Spanish mackerel, 30; green turtle, 20; terrapin, \$15 a dozen; frost-fish, 8 cents per pound; halibut, 18; haddock, 6; codfish, 6 to 8; blackfish, 12 to 15; flounders, 12; eels, 18; lobsters, 10; sheephead, 25; scallops, \$1.50 per gallon; soft clams, per 100, 30 to 60 cents; whitefish, 20; pickerel, 15; sunfish, 10; salmon trout, 18; hard crabs, per 100, \$3.00.

A few bluefish have been taken off the coast of North Carolina. They are the first captured this winter. Shad and a few sheephead are arriving by steamer from Savannah. Cod very plenty off Rockaway.

A FOUND NET.—That our readers may understand just what a pound net is, of which special complaint is made in another part of this issue, we republish the following description and illustration from the *Winona (N. J.) Advance*:



The line A represents a net of about six hundred feet in length, stretched across one of the channels. The dots along the line represent strong wooden stakes, driven firmly into the mud or sand, and upon which a net is supported and extending from the bottom of the channel to the surface of the water.

B represents a net surrounding a space of probably half an acre, firmly secured to stakes at the end of line A, the net being so arranged as to be drawn up something like a purse.

C represents the wings of the net, stretched out so as to aid in conducting the fish into B.

At the junction of the lines A and C there is a small funnel-shaped opening through which the fish are conducted into the pond B, and when in there are unable to get out.

The fish in moving about follow the channels usually, this net being set across the channel so that when the fish are moving up with the flood-tide or down with the ebb they strike the net on line A, and naturally swimming along to find a place either to get around it, or through it are conducted into the pond B.

This device for the depletion of waters of fish is kept for months in place and visited every day, sometimes twice a day.

by the owners with a large boat, which is taken into pound B, the net "pursed up" and the fish scooped out. Immense quantities of fish are in this way prevented from reaching the streams emptying into the bay.

MOVEMENTS OF THE FISHING FLEET.—The arrivals the past week have been confined to seven vessels from the Banks, three from Georges, one from the Bay St. Lawrence, and two from off shore mackerelling trips. Total number of arrivals, 13. The receipts have been about 135,000 lbs. Bank halibut, 30,000 lbs. Georges cod, 145 bbls. Bay mackerel, and 35 bbls. Shore mackerel. The Bay fleet are all in, and there is but one more Shore mackerelman to arrive. There are four Bankers still absent on salt trips, and the fleet seeking halibut is small. —*Cape Ann Advertiser, Dec. 7.*

NEW YORK—*South Brooklyn, Dec. 4.*—The Warrior Fishing Club made their annual fishing excursion to Fire Island to-day, and between the hours of 10 A. M. and 4 P. M. took 100 codfish, aggregating a weight of over 800 lbs.

TOWA—*Anamosa, Dec. 6.*—We are informed that a man living near Storm Spring, some distance up the Wapsie, last week speared three California salmon averaging seven pounds each. —*The Eureka.*

—We have seen the split bamboo rods advertised by Mr. Holberton, in another column, and, as far as we can judge, they are all that they are represented to be.

MANUFACTURE OF FISH HOOKS.—How long ago fish hooks were made in and around Redditch, in England, no one knows, possibly contemporaneous with the manufacture of needles; certainly for the last two centuries. Redditch fish hooks have been famous, not only for ocean fishing, but for whipping streams for the dainty trout. Quite possibly Dame Berners or Izaak Walton used good Redditch fish hooks. The making of fish hooks has to be a very precise and particular business. After the best steel wire has been cut into lengths, the barb, or, as it is technically called, the beard, is cut with a chisel or a sharp tool under proper guides and guards to prevent it going too deep. Then the point is filed, the bend made (and there is no end of bends) and the shank is either marked, notched, flattened or looped. Then the hook is tempered, scoured and blued. Does this end the business? No, not by a great deal. A Reader, did you ever strike a good sized fish, say a salmon, and feeling your line growing taut, twanging like a violin string, suddenly become aware of something limp and loose in your line? Then when you reel up, and the horrible fact becomes visible that your hook has broken in twain! were you profane on such an occasion? We trust not. Well, to guard against any such accidents, all reliable fish-hook makers test hooks, giving to each one a strain twice as powerful as it is supposed any hook can ever be put to. Just such hooks as we describe are manufactured at Redditch by Joseph Warren at the Eagle Mills; and Messrs. Abbey & Imbrie, 48 Maiden Lane, are the sole agents in the United States for the needles, and most particularly for the fish hooks.

CONDITIONS FOR BASS FISHING.—In a number of your paper dated Nov. 15, "Splasher" recommends sportsmen to give more of their experience in fishing, as to weather, bait, time, etc., and I think he expresses the wish of a large number of your readers who are lovers of the sport. In regard to shiners for bait, I prefer them during the month of October, but for September, I think helgramites the best, especially in fishing small streams where you can fish the entire stream from the shore. I always prefer to catch my bait as near the fishing grounds as possible, as you are more apt to get the kind of bait the fish prefer. In regard to small *versus* large minnows, I had a like experience to that described by "Splasher."

It was about the 1st of September, the water was colored a little, but not muddy. My minnows, with the exception of three or four, were small, probably an inch long. My largest fish were taken with the small minnows. I used my large minnows first, but took only fish weighing probably a half pound, although I took some weighing four and a quarter pounds.

In your answers to correspondents, "Splasher" asks the best way to hook the living helgramite. My method is to put it on the ground with the head toward you, place a finger of the left hand on the cap of the neck, and with the right hand insert the point of the hook under the cap of neck from behind forward till the barb comes through next the head on the same side. If hooked carefully it does not injure the life of the bait.

Let us hear from other fishermen more about black bass, their habits, how to catch them, bait, etc. ENTHUSIAST.

WORMS FOR BAIT.—A correspondent sends us this memorandum of an enterprising worm seller: "In the summer of 1875, when at Lake Tahoe, a large expanse of water 6,000 feet above the sea, on the eastern slope of the Sierra Nevada Mountains, I observed at a small landing the following inscription on a sign board: 'Boats and fishing lines to hire; angle worms for sale at 25 cents per dozen.'"

THE LITERATURE OF ADVERTISEMENTS.—A gentleman, high in office in the U. S. Treasury Department at Washington, volunteers to say, casually, in a private letter to the editor:

By the way, your advertisements are a very interesting feature of the paper. I am certain that I read each one in each issue, not because I expect to buy everything or anything, but because it is a pleasure to know what articles and kinds of articles are made, and where, etc.

We make no especial reference to holiday goods, as most journals do; we simply invite a general examination of our columns. Any person desiring presents for wives, husbands, sons and daughters or mothers-in-law, will find as varied an assortment there as in any other journal whatsoever, and the goods are most invariably of a better quality than those advertised in miscellaneous sheets.

—This the work

Of many a dark hour and of many a prayer  
 To bring the heart back from an infant gone,  
 sings a poet. Well? there would be less need of this effort if parents exercised more care in certain little matters. For example, by using B. T. Babitt's Toilet Soap they obviate the possibility of certain diseases that insidiously come in through the skin. The hygienic purity and excellence of this new toilet soap make it a most desirable thing for use.—*14th*

**Pachting and Boating.**

**HIGH WATER FOR THE WEEK.**

Date.	Boston.		New York.		Charleston.	
	H.	M.	H.	M.	H.	M.
Dec. 14.....	6	12	9	51	1	57
Dec. 15.....	7	03	8	49	2	47
Dec. 16.....	7	53	4	32	3	40
Dec. 17.....	8	40	5	26	4	34
Dec. 18.....	9	23	6	12	5	20
Dec. 19.....	10	15	7	6	6	23
Dec. 20.....	10	02	7	45	7	16

**VOYAGE OF THE PAPER CANOE.**—This is the title of a book by Mr. N. H. Bishop, whose contributions to this journal have made him known to our readers. The volume, soon to be published simultaneously by Lee & Shepard, Boston, and houses in London and Edinburgh, will be descriptive of Mr. Bishop's famous canoe cruise; and its value is to be enhanced by correct charts of the coast contour, especially prepared for Mr. Bishop by the U. S. Coast Survey Bureau. We shall welcome the book as an important contribution to its class.

**A BOAT FOR FLORIDA WATERS.**—*Editor Forest and Stream*—Everything here hinges on the wind. What we want is a boat drawing very little water, will head well and not go sideways like a crab. Will "Nauticus" give us a plan for a flat-bottom boat, something on the "S harpie" order, with two sails, length 21 or 22 feet and narrow, with plenty of flare to the sides; bottom to go on crossways without keels so as to be as light as possible? We have on Indian River a number of short "pumpkin seed" yachts, 14 and 16 feet long, and if it blows hard and much sea on they do nothing at all but pound when they have to boat. They will be all day going nowhera. When sailing before the wind they are so wrapped up in canvas that you want a yoke of cattle hitched to the tiller to steer them. Your boat articles take with all here, and I lend them out and they are read and re-read till they are read up. M.

Banana River, Fla., Nov. 28.

—J. H. Rushton, the manufacturer of the best light cedar boats in the country, is erecting a new building on Water street, near the stone blacksmith-shop, to accommodate the increasing demand of his business.—*Plaindealer, Malone, N. Y.*

**COLUMBIA YACHT CLUB.**—The Columbia Yacht Club held their annual meeting on Tuesday night last for the purpose of electing officers for the incoming year. The gentlemen chosen to fill the respective offices were the following: Commodore, J. S. Baker; Vice-Commodore, R. McWhinnie; Secretary, Charles H. Armstrong; Treasurer, Joseph A. Weaver; Measurer, George Heap; Steward, P. Bateman; Trustees, John Frick, Chairman; Peter Valentine, L. P. Wagsman, A. H. Rogers and A. T. Stephens; Finance Committee, John Frick, Chairman, A. H. Rogers and Lewis Fink, Jr.

**NEW YORK ATHLETIC CLUB.**—There will be a grand winter meeting of this club at Gilmore's Garden, on the evenings of Jan. 4 and 5. The running, walking and other contests are open to all amateurs. Entries close Dec. 27. For all particulars address the Secretary, A. H. Curtis, P. O. Box 8, 101, New York City.

**NIBLO'S—THE THREE GUARDSMEN.**—At Niblo's Garden Alexander Dumas' grand drama of the Three Guardsmen commenced on Monday last, and will be continued throughout the week. D'Artagnan, Athos, Aramis and Porthos have held their ground for many a year, and their numerous adventures, their quarrels and escapades have furnished untold amusement for almost a generation of play goers. The piece is admirably mounted; the performers play their parts with spirit, and for those fond of the romantic drama, and a play with no end of action, we know of no place of amusement where an evening can be more pleasantly passed than at Niblo's Garden.

**BEE LINING.**—*Editor Forest and Stream.*—Perhaps some of your numerous readers may have read Cooper's "Bee Hunter," and been interested in the mystery of bee tracking. If so, it may interest them to know that lining bees is practiced to some extent in the vicinity of Windsor, Conn., and that often the hunters are rewarded by securing a good many pounds of honey of a flavor surpassing that of domestic bees. A box with two compartments is prepared, with sliding door giving admission from one to the other. A hinged door opens from the outside in which the bee is made a captive. Now open the slide, and the first apartment being dark and the other lighted with a glass window, the bee quickly crawls through, and commences filling up from the honey placed in it. It takes him from two to three minutes to load up. Now open the door and up he goes into the air,

when circling round for a few minutes he arts off with the velocity of a bullet in the direction of his tree. Note the direction taken by the bee, and stand perfectly still timing in the meantime to see whether the distance be long or short to the bee tree. It takes him about the same time to deposit the ney as it did to receive it, and if he is not one more than six or eight minutes the distance to the tree is not great, for they fly with great velocity. On his return he, perhaps, brings one or two companions with him, and they go into the box. Now shut down the cover and start in the direction taken by the bee in his first flight, carrying the box with you in which the bees are engaged in loading up again. As soon as they are ready, halt, and open the door; instantly the bees rise, describing the same circles in the air, and then dart off again in a direct line for the tree. Go in any direction you choose, north, east, south or west the bee is never puzzled as to the right direction. His instinct is unerring, and no line can be drawn straighter than the bee flies. Now halt again till his return, when the same operation is repeated; the time of his flight and return grow shorter and shorter, and soon you are lead directly to the tree, where in the hollow trunk lies stored the luscious sweets. The tree found, with the aid of sulphur smoke you destroy the bees and take out the honey. Some fifty pounds were taken from a tree near here this fall, and last year a tree was found that yielded much more. I have only given the above in outline, but hope some one will give us the subject more in detail relative to the habits and haunts of wild bees in other sections of the country. BEE HUNTER.

Windsor, Conn.

**SLAUGHTERING CATTLE WITH DYNAMITE.**—The advantage claimed for the new method of slaughtering cattle with dynamite are the instantaneousness and certainty with which the result is accomplished. The old methods require a large amount of experience to be practiced with dexterity, and even then are not free from a certain degree of cruelty. The dynamite method is coming into favor in some of the European abattoirs, and experiments have been made demonstrating its possibility. The London Times has an account of recent trials in London:

To show the safety with which the explosive (Noble's dynamite) can be employed, small quantities were first burnt without any explosion. The charge with which the cattle were afterward killed consisted of about an ounce of a pinkish pasty substance, into which had been plunged a detonator on a fuse. The bullocks bought that morning in the market were led into Mr. Thomas Cross's slaughter-house, and tied up to posts there in the ordinary way. The operator, fending them, passed across the forehead a fillet of string secured round the horns, and so arranged that mid-way between the horns and eyes, and thus in the centre of the forehead, the charge of dynamite was placed, which formed the central and only ornament of the fillet. Then the fuse was fired, and in two cases the bullock was killed at once by the explosion of the ounce of dynamite. A hole was made in the skull by the force of explosion, but the concussion was entirely local, and people standing close by felt nothing. They heard a loud report. The dynamite may be applied at leisure to the proper place, and the operator ought to be able to count on keeping it there. An objection to its use is in the report which it makes. The second bullock was obviously frightened by the noise of the explosion of the first charge. The three animals were killed in nine minutes at the expense of about 8d. In the Black Country, where dynamite is common as a blasting material for mines, it is said to be already in practical use in the slaughter-house.

**CATFISH WITH AN EAR FOR MUSIC.**—In another column the zeal's claim to a musical taste is called into question. However that may be, here is an unquestionable instance of piscatorial horror of discord, which a correspondent gives us:

"My father constructed a pond near our dwelling-house, and stocked it with fish, especially with catfish and sunfish. These in time, by kind treatment, became so tame that they would take food from our hands, and even jump out of the water a short distance to obtain it. This pond was surrounded by a gravel walk. During many happy hours my pole was employed in catching fish in the creeks, which were carried alive in a tin pan to this pond. On one occasion, having placed the tin pan on the gravel walk prior to the transmutation of the fish to the pond, I moved the pan a few inches, which movement was accompanied with a harsh, discordant sound, caused by the friction of the tin on the gravel, and also attended by a spasmodic motion on the part of the fish, which jumped out of the water in the pan and fell up on the ground. It was clearly demonstrated that the fish did not relish such discordant music, nor did they hesitate to testify their disapprobation of it. I immediately put the fish in the pan again, and subsequently repeated the same operation several time with the same result."

**MESSRS. TIFFANY & CO.,**  
UNION SQUARE, NEW YORK  
City, have made extensive preparations for the approaching HOLIDAYS.

Their Stock of Diamonds, Watches, Jewelry, Silverware, Bronzes, Pottery, Stationery and Fancy Articles, is the largest and most varied in this country, and includes novelties from abroad and choice goods of their own manufacture, not to be found elsewhere.

A special department has been organized for sending goods to persons at a distance from New York, and any one known to the house, or naming satisfactory references, can have careful selections sent for inspection.

They have lately published a little pamphlet containing a condensed account of each department, and lists of articles appropriate for presents, which they will send to any address on request.

**Piper Heidsieck**  
AND  
**PIPER "SEC."**



**For Sale Everywhere.**

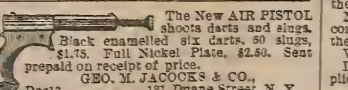
**JOHN OSBORN, SON & CO.,**  
43 Beaver street, New York,  
and  
44 St. Saourant street, Montreal,  
Oct 11 GENERAL AGENTS.

ESTABLISHED 1820.

**C. G. Gunther's Sons,**  
(LATE 502-504 BROADWAY.)  
**184 Fifth Avenue,**  
(Broadway and 3rd St.) NEW YORK.

SEAL-SKIN SACQUES AND WRAPS,  
FUR-LINED CIRCULARS AND CLOAKS,  
FUR ROBES, MATS, COLLARS & GLOVES,  
ALL IN LARGE ASSORTMENTS AND AT LOW PRICES.

N. B.—Orders by mail or information desired will receive special and prompt attention. Dec 15 '91



The New AIR PISTOL shoots darts and slugs. Black enamelled six darts, 50 slugs, \$1.75. Full Nickel Plate, \$2.50. Sent prepaid on receipt of price.  
**GEO. M. JACOBS & CO.,**  
121 Duane Street, N. Y.

**The Fibre Wad.**

Having made recent improvements in cutting and indenting our wads, we can recommend them as being equal to the best imported felt wads.

They will not take fire nor blow to pieces, and will hold the charge securely in metallic shells.

Sample of No. 14 to No. 10 sent for.....25c  
Sample of No. 8 and 9 sent for.....30c

**DELAWARE CARTRIDGE CO.,**  
Wilmington, Del.

**For Sale,**

**A** VERY nice made-to-order Scott, 10-bore, w/ loader, pistol-grip; weight, 9 1/2 lbs.; new; owner sells because he wants a lighter coat \$125 with case. Will sell low for cash. Address HENRY ALTEBRAND, Sixth street, North Seventh street, Brooklyn, E. D., N. Y.

**FLORIDA OUTFITS.**

Send 10 cents for illustrated catalogue of SHOOTING, FISHING and CAMPING GOODS, with lists and directions for camping, shooting and Bogardus' rules for glass ball shooting, etc., etc.

TENTS, CAMP STOVES, PORTABLE RUBBER GOODS, JACK LAMPS, ETC.

Suits of all kinds, including velveteen, coyote, leather, etc. Also a new style of duck, soft and pliable.

Fox, Webley, Scott and other breech-loading guns and rifles. Ammunition of all kinds.

**SPLIT BAMBOO RODS.**

I am able to offer to sportsmen a very superior article in split bamboo rods for fly and bass fishing and trolling. Call and examine them. Best rod warranted. With skeleton reel-handle, solid reel-bands, \$23, with tip case, extra tip bag.

These rods have been well tested, and equal, if not superior, to any in the market.

**FLORIDA OUTFITS A SPECIALTY.**

A supplement to my illustrated catalogue is ready this week, containing a number of new clothes for sportsmen, including price lists.

**SKATES.**

No sportsman should be without "THE SPORTSMAN'S DIARY AND NOTE-BOOK." Blank Skates for all kinds of shooting. Rules, etc., bound in leather—a handy size for the pocket. Sent on receipt of 50 cents.

Send no money by mail; remit by draft or P. O. order.

**W. HOLBERTON'S SPORTSMEN'S EMPORIUM,**  
P. O. Box 5, 109, 103 Nassau St., N. Y.

**SHONINGER ORGAN**



PRONOUNCED UNANIMOUSLY AS THE **Best Instruments.**

Their comparative excellence is recognized by the judges in their Report, from which the following is an extract:

"The B. SHONINGER ORGAN CO.'S exhibit the best instruments at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, and liable to get out of order, all the boards being made three-ply, put together so it is impossible for the to either shrink, swell or split." THE ONE ORGAN AWARDED THIS RANK.

This Medal and Award was granted after the most severe competition of the best makers, before one of the most competent juries ever assembled.

New styles and prices just issued, which are in accordance with our rule, the BEST ORGAN'S the least money.

We are prepared to appoint a few new Agents. Illustrated Catalogues mailed, postpaid, upon application to

**B. SHONINGER ORGAN CO.,**  
97 to 123 Chestnut Street,  
NEW HAVEN, CONN.

50 Mixed Cards, with name, for 10c and steam Agent's card, 50c. ATWATER BROS., Forestville, Conn. Dec 1

**C. C. & B. ZETTLER,**  
GUNSMITHS AND RIFLE GALLERY,  
401 Bowery, New York

25 NEW YEAR CARDS, with name, 50c. 30c. 3c. 1c. Mixed, 10c. 50c. L. Reed & Co., 25c. Dec 1

# NICHOLS & LEFEVER,

## MAKERS OF FINE GUNS

CATALOGUES SENT ON APPLICATION.

### SYRACUSE, N. Y.

## ACME CLUBSKATE.



The only reliable Self-Fastening Skate ever invented. Can be instantly and firmly attached to any boot, shoes or heel-plates, straps, nor key. Price per pair \$5. Nickel Plated \$4. Sent by Mail, post-paid, on receipt of price, or, by express C. O. D. Send stamp for illustrated price-list of Skates, Revolvers, Novels and other Sportsmen's Goods. Trade supplied by  
**FISH & SIMPSON, 132 Nassau street, N. Y.**

## THE UNITED STATES CARTRIDGE COMPANY,

LOWELL, MASS.

Manufacturers of the

CENTRAL FIRE, SOLID HEAD,

BRASS SHELL, RE-LOADING CARTRIDGE,

used by the Army and Navy of the United States and several Foreign Governments.

All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.

### Sportsmen's Attention:



### Keep Your Feet Dry.

The only premium awarded by the Centennial Commission, Philadelphia, 1876, for Alligator Waterproof Boots and Shoes.

Goods sent to all parts of the U. S., C. O. D.

Catalogues containing full instructions for self-measurement sent free on application.

503 Broadway, New York.

## NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the cheapest.

MADE OF BROWN VELVETEEN.

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horse etc., says: "It is my idea of a shooting coat. I have worn them for several years, and would not have seen it say it is The Best Yet. Coat, \$6.50. Also the best brown corduroy pants at \$10 per pair. See only the one grade, as the cheapest goods do not turn blurs and will not give satisfaction.")

Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the velvet; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen have seen it say it is The Best Yet. Coat, \$6.50. For full suit, \$14.00. I also make the sleeveless Vest with sleeves if desired. Rules for measurement and samples sent upon application.

F. L. SHELDON, Rahway, N. J.

For Sale by Dealers in GUNS and SPORTSMEN'S SUPPLIES.

The Kennel.

### MARSTERS' IMPROVED



### HORN DOG Whistle.

Can not be Lost from the Coat  
WAYS IN THE SAME PLACE WHEN  
WANTED.

Sample by mail, 50 cents. Trade supplied.

F. MARSTERS, 125 NASSAU ST., N. Y.,  
AND  
55 COURT STREET, BROOKLYN.

## DOGS.

DOCTOR HENRY GARDNER, No. 146 West 125th street, New York City. Dogs treated and chased on commission. Thirty-one years experience in canine diseases. **AG 21**

DR YOUNG COCKER SPANIEL STOCK FROM the choicest breeds. Inquire of  
M. P. MCKOON,  
Franklin, Del. Co., N. Y.

The Kennel.

### SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped.

F. O. de LUZE,

18 South William Street, N. Y., sole Agent.  
For sale in cases of 112 lbs. Special terms to dealers.

FOR SALE—When eight weeks old, six puppies out of my blue belton setter Mell, by Bob By. They are black and white. Two of them are black, white and tan, and are almost perfect images of their sire. For particulars, address L. F. WHITMAN, 5 City Hall, Detroit, Mich. **1293 11**

The Kennel.

## ST. LOUIS BENCH SHOW

AND  
SPORTSMEN'S ASSOCIATION,  
St. Louis, Mo.

The first annual Bench Show and Exhibition of the above Association will be held in St. Louis, Mo.,  
February 19th, 20th, 21st and 22d, 1878.

Cash prizes, paid in full..... \$3,000  
Special prizes, value..... \$2,000

Cash prizes for Kennels of English, Irish and Gordon Setters and Pointers, \$100 each.  
All Setters and Pointers have 1st, 2d and 3d prizes, cash, in open classes, \$30, \$20 and \$10.  
All Setters and Pointers in free-for-all classes have cash prizes of \$50 each.

Officers of the Association—President, E. Hayden, Manager American Express Co.; Vice-President, Jos. A. Wherry, Wholesale Boots and Shoes; Secretary, John W. Munson; Treasurer, H. S. Brown, of Brown & Hilder, gun dealers.

Directors—E. C. Sterling, President Hydraulic Press Brick Co.; C. Jeff Clark, of Clark & Keener, metal dealers; W. L. Scott, Secretary of Belcher's Sugar Refinery.

For catalogues and information address JOHN W. MUNSON, Secretary, St. Louis, Mo. **Nov 29 11**

BALLARD'S

## FLEA KILLER!

FOR THE  
DESTRUCTION OF FLEAS  
On Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety.  
Contents of a package sufficient to rid half a dozen large dogs of the vermin.

NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.

Price 50 Cents per Package.

Will be sent postage paid on receipt of price—Proprietors,

LAZELL, MARSH & GARDINER,  
1719 11  
10 GOLD STREET, NEW YORK.

Fleas! Fleas! Worms! Worms!

STEADMAN'S FLEA POWDER FOR DOGS.

A Bane to Fleas—A Boon to Dogs.

This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.

Price 50 cents by mail, Postpaid

ARECA NUT FOR WORMS IN DOGS

A CERTAIN REMEDY.

Put up in boxes containing a dozen powders, with full directions for use.

Price 50 cents per Box by mail.

Both the above are recommended by ROD AND GUN FOREST AND STREAM.

W. HOLBERTON,  
102 NASSAU STREET.

EDINA KENNEL.

JESSE SHERWOOD, Proprietor, Edina, Knox County, Mo., breeder and importer of Sporting Dogs. Pointers, setters, spaniels, fox and beagle hounds. "Sancho," Imp. Pointer, stud dog; fee, \$35. See English K. C. S. B., No. 1,005. He is a grandson of the celebrated "Hamlet," No. 836. This dog "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874, three here.

FULL-BLOODED—Two Irish setter bitches, four months. Sire of pups, Don, imported from J. C. Cooper, of Limerick, Ireland, by C. H. Turner, Sec. Nat. Kennel Club, St. Louis, Mo.; dam, Countess, by Rodman's Dash. One Gordon bitch, eighteen months old; hunted this fall; staunch on quail and very fast, with good nose; will make a good one. One Gordon bitch eight months old. Full pedigree given with pups. H. B. VONDERSMITH, Lancaster, Pa. **Nov 29 11**

FOR SALE—A thoroughbred orange and white Gildersleeve setter dog, 3 years old, handsome and well broken; has been hunted on all game, and has been worked for three weeks this season. Apply to ALLEN IRWIN, 1721 North 17th st., Phila. **Dec 15 11**

FOR SALE—Orange and white setter dog, 18 months old, by One-eyed Sancho, out of pure Gildersleeve Flora; full pedigree; partly broken; handsome; excellent retriever; will make a grand dog; price only \$20. Satisfactory reasons for selling. Address DRICKMAN, Verplank's Point, N. Y. **Dec 15 11**

FOR SALE—A well-bred setter dog, thoroughly broken on woodcock, quail and ruffed grouse. Also a 12-bore Parker breech-loader. Terms moderate. Address F. B., 395 Clinton street, Newark. **Dec 15 11**

BUCK AND RAPP—The subscriber calls attention to the above for stud purposes—Buck, the imported red Irish setter, and Rapp, a splendid pointer, from pure imported stock. Terms moderate. Address H., Box 1,677, F. O., N. Y. **Dec 15 11**

The Kennel.

FOR SALE—One Gordon Setter pup, 5 months old. For pedigree and full particulars address A. D. BOAS, Carlisle, Pa. **Dec 21**

FOR SALE—Three thoroughbred cocker spaniel pups, 2 dogs and 1 bitch, 6 months old, black and white, with black points. Price \$10 apiece, delivered free at my risk. Address C. S., No. 44 4th av., Pittsburgh, Pa. **Dec 21**

FOR SALE—Cocker Spaniel pups, by Witch, winner of first prize at N.Y. Bench Show. Stock guaranteed. Price \$15 each. Address ROBERT WALKER, Franklin, Del Co., N. Y. **Dec 21**

## Hotels and Resorts for Sportsmen.

### HALSEY HOUSE,

ATLANTICVILLE, LONG ISLAND,  
is nearer New York City than any house bordering on Shinnecock Bay. Is as near, and has as good shooting grounds; and as experienced attendants (with live geese and other decoys, batteries, etc., always on hand); nearer the station; the largest and the best kept house in the bay. L. I. RR. to Atlanticville Station. Fare, \$2. Stage meets all trains. W. F. HALSEY, Owner and Proprietor.  
Atlanticville, L. I., Oct. 20, 1877. **Oct 25**

### Metropolitan Hotel,

WASHINGTON, D. C.

### Carrollton Hotel,

BALTIMORE, MD.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.

### THE METROPOLITAN

is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and re-furnished throughout. The cuisine is perfect; the service regular, and charges moderate.

R. B. COLEMAN & CO.

## Wild Fowl Shooting.

SPRINGVILLE HOUSE OR SPORTSMEN'S RESORT, SHINNECOCK BAY, L. I.,

By a practical gunner and an old sportsman. Has always on hand the best of boars, batteries, etc., with the largest rig of trained wild-geese decoys on the coast. Special attention given by himself to his guests, and satisfaction guaranteed. Address WM. N. LANE, Good Ground, L. I. **Nov 15 11**

Duck; Shooting at Van Slycks,

CURRITUCK CO., N. C.

Sportsmen furnished with Board, Skiffs and Stool Ducks. Good, Partridge and Snipe Shooting. Steamer Cygnut leaves Norfolk and runs direct to the house Mondays and Thursdays at 6:30 A. M. **Nov 22 11**

## Land-locked Salmon Spawn.

The DOBBS CLUB, on the Sysladobbs Lake, in Maine, will dispose of from 50,000 to 100,000 LAND-LOCKED SALMON SPAWN if application is seasonably made, before they are too far developed to be transported. Many of the females from which this spawn was taken weighed 4 lbs., and the milters quite as large. Price, \$5 per thousand, delivered to Express at Winn, Maine. Apply to CUTLER DOWNER, 25 State St., Boston, Mass. **Nov 29 11**

Wanted.

WANTED—An offer for a Mullin duck gun; the bore & length of barrels 36 inches; muzzle loader. Made for present owner; cost \$200. Warranted in every particular. Can be seen at Genex, Chambers St., N. Y. Address, Wesley Smith, 54 St. Marks Place, New York. **Nov 29 11**

WANTED a situation by a lad of fourteen in a store or office in New York or Brooklyn. Address S. S., office of FOREST AND STREAM and ROD AND GUN, where references can be had. **Dec 17 11**

WANTED—A second hand Johnson Health Lift. Must be in good order, and sold cheap. Address LOCK BOX 616, Westchester, Pa. **Dec 21**

WANTED—A Nichols & Lefever or Parker gun. Must be good and cheap. Send description and price to DR. WILLIAMS, 106 Argyle avenue, Baltimore, Md. **Dec 15 11**

For Sale.

SECOND-HAND.—A very fine Tolley breech loader, with two sets of barrels fitted to same stock; one pair 10 bore Danxams and very close shooting; other pair laminated steel and cylinder bore; weight, 9 lbs. and 9 1/2 lbs. This gun was made to order for the owner, and is very superior in every respect. Can be examined at gun store of HENRY C. SQUIRES, 1 Cortlandt street, N. Y. **Nov 11**

FOR SALE—An entirely new "Express" shotgun, 12-gauge, made to order by J. D. Douglis, 59 St. James street, London. For details, address F. O. Box 757, Hartford, Conn. **Dec 15 11**

Gunpowder.

Warren Powder Mills,

MANUFACTURERS OF BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS—Eureka, Continental "Border Rifle," Snap-Shot, and Warren Sporting Cannon and Musket, U.S. Standard. The above can be had of the dealers, or at wholesale at the office, 27 Doane street, Boston, Mass., and of the agents, JOHN P. LOVELL & SONS, corner of Wash- ington, Cornhill and Brattle streets, Boston, Mass. 1919

THE

New Dittmar Powder.

THE CHAMPION POWDER OF THE WORLD.

For off-hand shooting at short and long ranges. Unsurpassed for Cleanliness. Pleasant to shoot on account of little recoil and report. Desirable for hunting on account of little or no smoke. Un- equalled for rapid firing, as it does not foul and heat up the barrel as black powder. Great accuracy, penetration and good pattern. Safer than black powder. Address

CARL DITTMAR, NEPONSET, MASS.

ORIENTAL POWDER MILLS MANUFACTURERS OF ALL KINDS OF GUNPOWDER

Once—13 BROAD STREET, BOSTON.

BRANDS—DIAMOND GRAIN.

FALCON DUCKING.

WILD FOWL SHOOTING.

WESTERN SPORTING.

(Oriental Rifle.)

The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES.

J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. Cobb & Wheeler, Agents, 9 State St., Chicago, Ill. C. J. Chapin, Agent, 615 Loast St., St. Louis, Mo. Agencies in the principal cities in the United States.

THE

HAZARD POWDER CO.

MANUFACTURERS OF

GUNPOWDER.

Hazard's "Electric Powder."

Nos. 1 (fine) to 6 (coarse). Unsurpassed by point of strength and cleanliness. Packed in square canisters of 1 lb. only.

Hazard's "American Sporting."

Nos. 1 (fine) to 6 (coarse). In 1 lb. canisters and 6 1/2 lb. kegs. A fine grain, quick and clean, for upland prairie shooting. Well adapted to shot-guns.

Hazard's "Duck Shooting."

Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzle or breech-loaders.

Hazard's "Kentucky Rifle."

FFFG, FFG, and "Sea Shooting" FG, in kegs of 25, 12 1/2 and 6 1/2 lbs, and cans of 5 lbs. FFFG is also packed in 1 and 1/2 lb. c. m.isters. Burns strong and moist. The FFFG and FFG are favorite brands for ordinary sporting, and the "Sea Shooting" FG is the standard Rifle powder of the country.

Superior Mining and Blasting Powder. GOVERNMENT CANNON & MUSKET POWDER. ALSO, SPECIAL GRADES FOR EXPLOSIVE. ANY REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER.

The above celebrated Brands are manufactured by the Company's Agents in every prominent city, or wholesale at our office.

88 WALL STREET, NEW YORK.

GUNPOWDER

DEAD SHOT,

NE PLUS ULTRA,

TELEGRAPH,

DUCK SHOOTING.

The above celebrated Brands are manufactured by the

AMERICAN POWDER CO.,

233 State Street, Boston.

GENERAL WESTERN AGENTS

E. B. RAMBO, Chicago, Ill.

F. G. GODDARD, St. Louis, Mo.

M. BARK & Co., Cincinnati, O.

Oct 4

N.Y. Newspaper Mailing Agency

With the latest improved Newspaper Folding and Mailing Machine, No. 18 Spruce street. JAMES BRADY, Manager & Proprietor

Sportsmen's Goods.

THE

"Boston Shooting Suit"

Is manufactured only by

G. W. SIMMONS & SON,

BOSTON.

Flexible, Waterproof, Tan-Color, Duck.

Each article—coat, trousers, vest and hat—have the name and manufacturer's address stamped upon it, and no suit is genuine without it bears this imprint.

The suit can be sent, secretly packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit.

We make no discount except to the trade. We make but one quality, and that is the VERY BEST. The price of the suit complete is \$13.

The suit consists of coat, trousers, vest and choice of either cap with havelock, or hat.

The material is of the best quality of duck, water-proofed by a patent process. The color is that known as "dead grass shade."

The seams and pocket corners are copper riveted, and nothing is neglected to make the whole suit complete in every way.

This is what one of our best sportsmen says of it, writing from camp: "Miserable, drenching rain, pouring down in a perfect deluge, as if a second flood had come upon the earth, two portages to cross, and a swamp between them; that was the prospect before we reached our camping ground. Such a swamp, too; almost impassable, for where the ground was firm was an almost impenetrable thicket of thorns and what not, that looked as if it would tear you to pieces. Well, we got to our camp, and I must confess I was agreeably surprised on my arrival. Although I had been nearly eight hours under incessant rain, laboring and striving along under the adverse circumstances above mentioned, yet I found myself comparatively dry, and my clothes without a tear. For the benefit of our brother sportsmen, let me advise one of Messrs. Simmons' (of Boston, Mass.) Waterproof Suits. Oh! what a relief it was to find one's tobacco was dry, and that one could light a pipe; that you could laugh at your miserable friend, who stood shivering and shaling as if he had the palsy; and then, next morning oh! what fun it was to see him mending his clothes, while I had not a tear to complain of. Ventilation, also, that great bugbear of waterproof suits, is legislated for in the most ingenious manner. No sportsman should fail to supply himself with a suit which is at once cheap, practical, and will last an almost indefinite time."

Out New Overcoat—The "Plevna,"

Water-proof, Mildew-proof and Moth-proof, is attracting great attention. It is made and sold only at Oak Hall, Boston. The price is \$13.

It is a long overcoat made to wear to cover, or when diving or walking in stormy weather. It is perfect water-proof, thoroughly ventilated, and just the garment that every sporting man should have.

Our Leather Jackets and Vests

are the great wind protectors. They are made from soft, pliable black leather, flannel lined, and sell at \$5 and \$7.

Our Flexible Tan-Colored Waterproof Leather Coats and Breeches

are considered the finest things ever made. They sell at \$2 and \$15.

An illustrated circular, containing full description of each garment, with sample of the material from which it is made, will be sent free on application.

Address

G. W. SIMMONS & SON,

OAK HALL, BOSTON, MASS.

FURS.

F. BOOSS & BROTHER.

ESTABLISHED 1853.

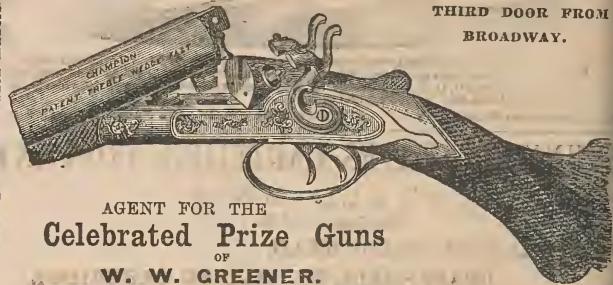
THE ONLY FUR HOUSE in this city who received at the Centennial Exhibition the HIGHEST AWARD AND DIPLOMA for SEAL SACQUES, FANCY FURS, ROBES, Etc. Our prices this season are 25 PER CENT. LOWER THAN LAST YEAR'S.

449 Broadway and 26 Mercer St., New York.

HENRY C. SQUIRES,

No. 1 CORTLANDT STREET,

THIRD DOOR FROM BROADWAY.



Winner of the Minnie Silver Cup in 1876, presented by Mr. Purdy, beating all best London makers.

AGENT FOR THE Celebrated Prize Guns OF W. W. GREENER.

These guns have been winners in every trial during the last three years, competing with all the first class makers in England. The shooting of every gun is guaranteed, and prices as low as consistent with good work. Guns built to exact order of sportsmen. I keep the best selected stock of guns by all the other makers to be found in this city, including Scott, Webley, Remington, Parker and Fox. Marshall new Glass Ball Trap, \$5; three traps, \$12. English chilled shot, all sizes and in any quantities. Agent for Dittmar powder. Complete outfits for hunting and camping. Best Breech-Loader ever offered in the United States for \$35. Wholesale Agent for Hoiabird's Shooting Suits, and Camp Lounger Company.

PRICE, BOXED, WITH DARTS, SLUGS, TARGETS, &c., \$10. FULL NICKEL PLATE \$12.



A FINE HOLIDAY PRESENT. THE NEW IMPROVED AIR RIFLE. Especially Adapted for Target Practice. SPLENDID FOR SHOOTING SMALL GAME and TOUCHING CATS OR DOGS.

Just the thing for Taxidermists to collect specimens. There is no report or dust attending its use, or any auxiliaries required to operate it. It can be loaded with ease and rapidity. It is extremely simple, and has no delicate parts to get out of order or wear out. For sale by the Trade generally. Sent upon receipt of price or C. O. D. SEND FOR CIRCULAR. H. M. QUACKENBUSH, Patentee and Mfr., Herkimer, N. Y.

Hart's Sportsman's Favorite Metallic Shells. FOR BREECH-LOADING SHOT GUNS.

These Shells are easily loaded, and the caps easily extracted from inside. Head solid and much thicker than any Shell now made, giving a solid seat for cone or anvil, which prevent it from driving through or springing away, thereby causing mis-fires. The cone is made of nickel, and fastened solid in its place. Neither rust nor corrodes fast, like movable anvil made from steel. The Nickel Cone also prevents mis-fire when a cap has been left on shell for a few days, which is liable to occur either in steel or iron. These Shells are finely finished, and made any length ordered, from 3/4 to 3 1/2 inches.

Shells and Loaders and Descriptive Price-Lists can be obtained from all the leading Sportsmen's House throughout the country. FROM CAPTAIN BOGARDUS, CHAMPION WING-SHOT OF AMERICA. Messrs. GEORGE E. HART & Co.—Gentlemen: The fifty Shells I received from you to-day suit me better than any I have ever used. They are stronger and better in every respect, and I shall use them in all my shooting hereafter. Yours truly, A. H. BOGARDUS.

SHELLEY'S PRAIRIE OIL.

The Great Natural Remedy

FOR ACUTE AND INFLAMMATORY RHEUMATISM, GOUT, SCIATICA, LUMBAGO, and Severe Cases of Bodily Pain.

AN INFALLIBLE CURE.

Unnumerable Testimonials from prominent citizens as to the wonderful curative properties of Prairie Oil will be furnished on application.

PRICE FIFTY CENTS, ONE AND TWO DOLLARS PER BOTTLE.

SENT BY EXPRESS ON RECEIPT OF PRICE.

Manufactured by "THE PRAIRIE OIL Co.," 132 Nassau St., N. Y.

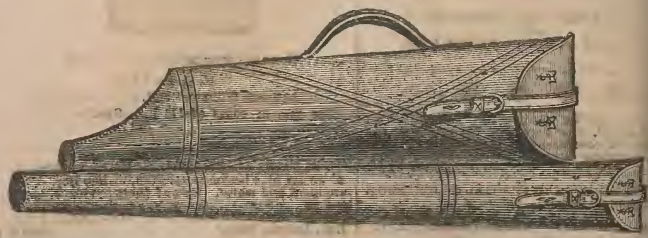
AND SOLD BY DRUGGISTS GENERALLY. (P. O. BOX 2,997.)

"About two years ago I was first attacked with Rheumatic Gout, and after intense suffering and great expense from medicine and doctors' bills, without obtaining relief, I procured Prairie Oil, and in less than three days after the first application was enabled to walk to my office, a distance of three miles, although previously confined to my room for nearly five weeks. From that time to the present I have never been without the oil, nor have I ever applied it in vain, notwithstanding so lengthened a trial. My family use it for any of the complaints it is intended for, and consider it invaluable. H. F. WILBANKING.

Mr. M. PADON, tobacco merchant, 292 Fulton street, Brooklyn, lost the use of his right leg by Sciatica, got relief at once after first application of PRAIRIE OIL. This gentleman had become so depressed by his affection that he had given up all hopes of recovery.

Says the Proprietor of Niblo's Garden, New York: "PRAIRIE OIL gave me relief from inflammatory rheumatism after first application; and after the third I had no further use for my cane."

Mr. KEENEWARD PHILIP, Dramatic Editor Brooklyn Eagle, Brooklyn, was unable to walk without the aid of crutches, owing to a severe attack of Rheumatism. After the third application of PRAIRIE OIL the crutches were thrown aside, he having no further use for them.



Handiest gun case manufactured; made of heavy bridle leather, and in best style; can be carried same as a satchel everywhere; price \$6. Sent by express C. O. D. Also made of heavy waterproof canvas, lined with flannel; price \$2; sent by mail, postage prepaid. Address THOMSON & SON, 301 Broadway, New York. P. O. Box 1,016.

**Publications.**

**Publications.**

**Sportsmen's Routes.**

**Sportsmen's Routes.**

**LONG-RANGE RIFLE SHOOTING.**

**Sportsman's Gazetteer**

**Fall River Line**

**F N roassau, N. P.**

A Complete History of the International Long-Range Matches, 1873-1877—Complete Elcho Shield Scores—Rules and Regulations of the N. R. A. Etc., Etc.

AND GENERAL GUIDE, By CHARLES HALLOCK, Editor of "Forest and Stream and Rod and Gun," 896 pp., Price \$3. Tinted Paper, \$4; half-bound mo., \$5.

FOR BOSTON AND ALL POINTS EAST, VIA NEWPORT AND FALL RIVER TO THE MAMMOTH PALACE STEAMSHIPS, BRISTOL AND PROVIDENCE. Leave Pier No. 25, North River, foot of Murray street, daily at 4:30 P. M. (Sundays excepted). FULLNIGHT'S REST. NO MIDNIGHT CHANGES. Tickets for sale at principal hotels and ticket offices, at office on pier, and on board steamers.

VIA ST. AUGUSTINE, FLA. From Savannah, Ga., to Nassau, N. P., via St. Augustine, Fla., Steamship San Jacinto, with sail Dec. 31 and January 1, and every alternate Tuesday. Connecting steamers leave New York on Dec. 15 and 29.

**FULLY ILLUSTRATED**

BY THE RIFLE EDITOR OF THE "FOREST AND STREAM AND ROD AND GUN."

A complete Dictionary for Sportsmen. Everybody wants it that has a dog, gun or fishing rod. A complete description of all kinds of Game, Fish, etc. Field Sports, Woodcraft, Angling, Fly Tying, Dogs, Dog breeding, Diseases and Treatment, Boating and Boat-building. Several thousand localities where game and fish are to be found. Nothing of the kind ever before published worth ten times the price.

BORBEN & LOVELL, Agents, GEO. L. CONNOR, J. R. KENDRICK, Gen'l Pass. Agt. Sup't.

**FOR NASSAU DIRECT,**

Steamship Carondelet, January 2, and monthly thereafter. For all particulars, illustrated guide, &c., apply to MURRAY, FERIS & CO., No. 62 South St.

**ONLY DIRECT FLORIDA LINE.**

For Fernandina, Fla., Port Royal, S. C., and Brunswick, Ga.

Sailing every FRIDAY from Pier 20, E. R., at 3 P. M.

Close connection made with the M. and B. and B. A. Railroads at Brunswick, and the P. R. R. at Port Royal; also with the steamer Carri (which has been refurbished), at Fernandina for Jacksonville and the St. John River.

For through rates of freight and passage, apply to G. H. MALLORY & CO., Agents, 153 Maiden Lane, Nov 29 4m NEW YORK.

**NEW HAVEN, HARTFORD, SPRINGFIELD, AND THE NORTH.**

The first-class steamer ELM CITY leaves Pier 25, East River, daily (Sundays excepted) at 3 P. M. Passengers to North and East at 12 P. M.

NIGHT LINE—the CONTINENTAL leaves New York at 11 P. M., arriving in New Haven in time for the early morning trains. Merchandise forwarded by daily express freight train from New Haven through Massachusetts, Vermont, Western New Hampshire, Northern New York and Canada. Freight received until 5 P. M.

MICHAEL PECK, General Agent.

**HUNTING**

FOR DEER, BEAR, PARTRIDGES, DUCKS, Take the Grand Rapids and Indiana Railroad.

**FISHING**

FOR BLUE, PICKEREL, BASS, Etc., Follow the G. R. and I.—The "Fishing" Line

Time, New York to Grand Rapids, 37 hours.

**EXPENSES LOW.**

Shooting season expires December 15. For information as to routes, rates and best points for the various kinds of game, etc. Apply to

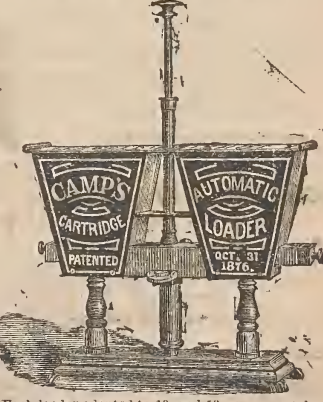
A. HOPPE, Eastern Agent, 116 Market St., Phila., Pa. A. B. LEET, Grand Rapids, Mich. Nov 29 12

**FOR NEW SMYRNA, FLORIDA.**

Schooner Surprise, Capt. J. E. Spinger, will sail for New Smyrna, Mosquito Inlet, on or about Dec. 15, 1877. For further information of Passage and Freight, inquire of FERGUSON & WOOD, No. 45 South St., New York. Nov 29 12

**Sportsmen's Goods.**

Attention, Sportsmen!



Each loader adapted to 10 and 12 gauge metal or paper shells of any length, each shell being accurately charged and wadded complete in one operation. Amount of charge readily adjusted. Highly endorsed by sportsmen and the press. Having perfected arrangements for manufacturing in large quantities we have reduced the price to \$6. Manufactured only by CAMP & WISE, Squa Iron, Dane County, Wis. All orders for sample loaders must contain remittance. D c6 12

**THE WALKING TRICK MOUSE**

An amusing, durable India Rubber Toy. Get one, and have a good square laugh. Samples by mail 15 cts. Agents wanted. H. K. SCUDAM, 204 Nass Street, Brooklyn, (E. D.) Long Island, New York.

CITY AND COUNTRY PROPERTY bought, sold and exchanged. C. S. PECK, 3 West Twenty-fifth street, New York. Sep 28 1y

**Bound Volumes of Forest and Stream.**

EIGHTH VOLUME, NOW READY. First Four Volumes, \$4 each, Others, \$3.50.

A complete set of the FOREST AND STREAM seven volumes, bound handsomely in cloth—a valuable library for the sportsman—can now be obtained on application to this office.

**BINDERS.**

Get your fine books bound. Art Journals bound uniform to London publishers' style, Pictorial America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done in two or three days if required. E. WALKER'S SONS, 14 Dey street.

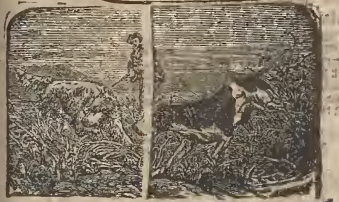
**Camp Life in Florida.**

By CHARLES HALLOCK, AUTHOR OF THE FISHING TOURIST,

Published by Forest and Stream Publishing Co., No. 111 FULTON STREET, NEW YORK,

and for sale by all booksellers. Sent by mail, post age prepaid, on receipt of price (\$1.50) at office of publication.

**FRANK SCHLEY'S AMERICAN**



**Partridge & Pheasant Shooting.** Describing the Haunts, Habits, and Methods of Hunting and Shooting the American Partridge—Quail; Ruffed Grouse—Pheasants, with directions for handling the gun, hunting the dog, and shooting on the wing. Price, \$2. Liberal discount to the trade. To be had at book stores generally. Address, Frank Schley, Frederick City, Md. Dec 14-1y

**KNOW THYSELF**

A new Medical treatise, "The Science of Life, or Self Preservation, a book for everybody. Price \$1, sent by mail. Fifty original prescriptions, either one of which is worth ten times the price of the book. Gold medal awarded to the author. The Boston Herald says: "The Science of Life is, beyond all comparison, the most extraordinary work on Physiology ever published." An Illustrated Pamphlet sent FREE. Address Dr. W. L. PARKER, No. 4 Bulfinch Street, Boston, Mass. Oct 3m

**HEAL THYSELF**

The Southern Guide.

A finely illustrated quarterly periodical, exhibiting the characteristics and resources of the Southern States. One dollar per year; single copies, 25 cents. Published by BRAMHALL & CO., Washington, D. C. Dec 6 3m

**POULTRY WORLD**—A splendidly illustrated monthly, \$1.25 a year. Send 10 cts for a specimen copy. Address POULTRY WORLD, Hartford, Conn. Dec 1yr Ex

PUBLISHED BY FOREST & STREAM PUBLISHING CO. 111 Fulton street, New York.

**Sportsmen's Routes.**

**STONINGTON LINE.** FOR BOSTON AND ALL POINTS EAST. REDUCED FARE: Elegant Steamers STONINGTON and NARRAGANSETT leave Pier 33 North River, foot Jay St. at 6:00 P. M. NOT A TRIP MISSED IN SEVEN YEARS.

Tickets for sale at all principal ticket offices. State rooms secured at offices of Westcott Express Company, and at 363 Broadway, New York, and 883 Washington St., Brooklyn.

**PROVIDENCE LINE.** Freight only, steamers leave Pier 37, North River, foot Park Place, at 4:30 P. M. Freight via either line taken at lowest rates. L. W. FULKINS, G. P. Agent, D. S. BABCOCK, Pres.

**St. Paul and St. Louis Short Line.**

Burlington, C. Rapids & N'rthern Railway.

QUICKEST, CHEAPEST AND BEST!

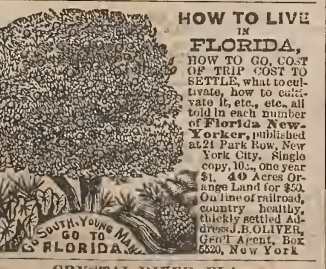
TWO PASSENGER TRAINS EACH WAY DAILY, crossing and connecting with all East and West Lines in Iowa, running through some of the finest hunting grounds in the Northwest for Geese, Ducks, Pinnated and Ruffed Grouse and Quail. Sportsmen and their dogs taken good care of. Reduced rates on parties of ten or more upon application to General Ticket Office, Cedar Rapids. C. J. IVES, E. P. WINSLOW, Gen. Passenger Agent.

**FOR FLORIDA**

FOR THROUGH TICKETS TO FERNANDINA JACKSONVILLE, ST. AUGUSTINE, SAN FORD, ENTERPRISE and intermediate landings in ST. JOHN'S RIVER and interior points in FLORIDA, by steamship to SAVANNAH, and thence by railroad or steamboat, apply to WM. L. JAMES, General Agent. Philadelphia and Southern Mail S. S. Co., Pier 22 South Delaware Avenue, Phila.

**"The Bermudas."**

NOW A FAVORITE AND DELIGHTFUL WINTER RESORT, is reached in seventy hours from New York, and being surrounded by the warm waters of the Gulf Stream enjoys an equable temperature of about 70 deg. The elegant British Steamships "Bermuda," and "Caminia," 1,000 tons, fitted expressly for the passenger travel, are dispatched from New York for Bermuda fortnightly, making connection at Bermuda with steamers for St. Thomas and West Indies. For full information apply to A. E. OUTERBRIDGE, Agent, 22 Broadway, N. Y. Dec 21 1y



Take vessels from Cedar Keys that make several trips weekly. Very fine game country; splendid fishing. E. R. KING has accommodations for sportsmen, and has dogs for hunting. Refers to A. B. Dodge, 551 Broadway, N. Y. Nov 15

**GREAT SOUTHERN Freight & Passenger Line, VIA Charleston S. C.**

The South and the Southwest AND THE FLORIDA PORTS, Wednesday and Saturday At 3 o'clock P. M. From Pier 27, N. R.

CITY OF ATLANTA, CHARLESTON, Capt. M. S. Woodhill. Capt. R. W. Lockwood. SANTIAGO DE CUBA, G. W. CLYDE, Capt. S. Crowell. Capt. Ingraham.

The above steamers have been handsomely fitted up for the convenience of passengers, and are unrivalled on the coast for

**Safety, Speed and Comfort.**

Close connections at Charleston with the favorite and well-known Florida packets, DICTIONAR, Capt. Vogel; CITY POINT, Capt. Scott; for FERNANDINA, JACKSONVILLE, ST. AUGUSTINE, PALMYRA, ENTERPRISE, MELONVILLE and all points in Florida.

EXCURSION TICKETS AT REDUCED RATES. Insurance to destination ONE-HALF OF ONE PER CENT.

Goods forwarded free of Commission. Passage tickets and Bills of Lading issued and signed at the office of JAMES W. QUINN & CO., Agents, Pier 27, N. R., foot Park Place. Office on the wharf.

W. P. CLYDE & CO., No. 6 Bowling Green. Through Freight Tariffs, Passage Tickets by all routes and to all points in the South and Southwest, and further information can be obtained at the office of BENTLEY D. HASELL, General Agent, Great Southern Freight Line, 317 Broadway, corner of Thomas street. Oct 11 3m

**TO SPORTSMEN: THE PENNSYLVANIA R. R. CO.**

Respectfully invite attention to the Superior Facilities afforded by their lines for reaching most of the TRUING FAIRS and RACE COURSES in the Middle West, a new line being CONTINUED FROM ALL IMPORTANT POINTS, avoid the difficulties and dangers of reshipment, while the excellent cars which run over the smooth steel tracks enable STOCK TO BE TRANSPORTED without failure or injury. The lines of

Pennsylvania Railroad Company also reach the best localities for GUNNING AND FISHING in Pennsylvania and New Jersey. EXCURSION TICKETS are sold at the offices of the Company in all the principal cities to KANE, KENOWA, BUDFORD, CRESSON, RALSTON, MINNEQUA, and other well-known centers for Trout Fishing, Wing Shooting, and Still Hunting.

Also, to TUCKERTON, BEACH HAVEN, CAPE MAY, SQUAN, and points on the NEW JERSEY COAST, renowned for SALT WATER SPORT AFTER FIN AND FEATHER.

L. P. FARMER, Gen'l Pass. Agent, FRANK THOMSON, Gen'l Manager. febr-17

**Old Dominion Line.**

The steamers of this Line reach some of the finest waterfowl and upland shooting sections in the country. Connections direct to Chesapeake, Cobb's Island, and points on the Peninsula. City Point, James' River, Carttruch, Florida, and the mountainous country of Virginia, Tennessee, etc. Norfolk steamers sail Tuesday, Thursday and Saturday; Delaware, Monday and Friday at 3 P. M. Full information given at office, 157 Greenwich St., New York. Sep 28 1y

Guns, Rifles, Etc.

DON'T PASS THIS BY.

STODDARD'S CARTRIDGE-LOADING IMPLEMENT, COMBINING ALL OTHER TOOLS AND FOR ALL SHELLS.

Length, 4 1/2 inches; weight, 10 ounces, and nickel-plated. Price, \$6.

Recommended by FOREST AND STREAM AND ROD AND GUN, Boone, Recapper, Will Wildwood, Ira A. Payne, and others. Liberal discount to the trade. Send postal order to

C. J. STODDARD & CO.,

Lock box 192, Washington, D. C.

IRA A. PAINE'S CHAMPION FILLED GLASS BALL.

PATENTED OCTOBER 23.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD--SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the services of that well-known sportsman, IRA A. PAINE, to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell.

HEADQUARTERS BOHEMIAN GLASS WORKS, 214 Pearl Street, N. Y.

PAINE'S PATENT Feather-Filled Glass Balls and Huber Traps.

MESSRS. WILLIAMS & POWELL HAVE ORDERED 30,000 OF THE FORMER, AND FORTY OF THE LATTER. THEY WILL BE SHIPPED FOR ENGLAND ON SATURDAY NEXT. THIS, WITH THE LATE ORDER FROM W. & C. SCOTT & SONS, EFFECTUALLY ESTABLISHES THE SUPERIORITY OF THE

PAINE FILLED BALLS AND THE HUBER TRAPS.

Dec 13 1m

Bogardus' Patent Rough Glass Balls and Glass Ball Traps.



These Traps are the only ones that give satisfaction, as they are simple of construction, easily set, and not liable to get out of order, and they throw the ball in a manner that more closely resembles the flight of a bird than any other trap in the market.

These Traps are the only ones that give satisfaction, as they are simple of construction, easily set, and not liable to get out of order, and they throw the ball in a manner that more closely resembles the flight of a bird than any other trap in the market.

These Traps are the only ones that give satisfaction, as they are simple of construction, easily set, and not liable to get out of order, and they throw the ball in a manner that more closely resembles the flight of a bird than any other trap in the market.

W. & C. SCOTT & SONS have ordered 10,000 balls and 24 traps to be sent to England

HEADQUARTERS FOR BALLS, HAGGERTY BROS., 10 Platt Street.

Dec 17

FOR TRAPS, GEO. E. HART & CO., Newark, N. J.

Match Against Time--Skill and Endurance.

GILMORE'S GARDEN, NEW YORK CITY, JANUARY 3, 1873.

CAPTAIN A. H. BOGARDUS, Champion Wing Shot of the World, has made a match to break 5,000 Glass Balls in 500 consecutive minutes, loading his own gun. Balls to be sprung from his patent traps. Shooting to commence at 3 o'clock P. M.

Dec 6



THE GREEN GUN has the simplest and strongest snap-action inside. The proportions and finish, the shooting qualities for penetration and pattern, are not excelled. Can bore to make any pattern ordered, from a cylinder to a full choke.

Price \$45. Re-boring and repairing breech-loading shot-guns done promptly and in the very best manner. Send for new price list to CHARLES GREEN, 3 West Main St., Rochester, N. Y.

Aug 30 1/2

The Huber Champion Glass Ball Trap. Compact and Durable.

Balls can be thrown in any direction or elevation, unknown to the shooter, a screen preventing his seeing how the trap may be set.



"I have used all traps in market, and find Huber's Champion Trap the king trap of the world. IRA A. PAINE."

W. & C. Scott & Son, Birmingham, Eng., have ordered 15 of our champion traps.

PRICE \$10.

Also Williams & Powell, Liverpool, Eng., have ordered 45 of these traps within sixty days. All sportsmen who have examined the above trap pronounce it the best in market.

N. B.--OTHER TRAPS TAKEN IN EXCHANGE AT A REASONABLE VALUATION.

UNION SQUARE HOTEL,

UNION SQUARE, Corner 15th Street, New York.

C. M. BRENNAN,

OLD KENTUCKY BOURBON & MONONGAHELA,

40 South Clark Street, Chicago.

A. J. DAM & SONS, Proprietors.

Sportsmen's Goods.

W. H. HOLABIRD, Manufacturer of

Specialties in Clothing FOR SPORTSMEN.

Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, water-proof and first-class in every particular, sent by mail, post-paid, \$6.

Holabird's New Game Bag; weighs 12 ounces. The most convenient and coolest garment ever offered to Sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2.

Holabird's New Cartridge Vest, capacity for fifty shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style.

Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods. Jy 12 1/2

Founded July 4, 1808.



Thos. W. Sparks,

Shot & Bar Lead

MANUFACTURER.

Office 121 Walnut Street, Philadelphia.



GOOD'S OIL TANNED MOCCASINS.

The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine article. Send for illustrated circular. MARTIN S. HUTCHINGS, P. O. Box 363, Dover, N. H. (Successor to Frank Good.)

W. HOLBERTON, 102 Nassau St., N. Y., Agent.

L.S.L.

A SPLENDID OPPORTUNITY TO WIN A FORTUNE. FIRST GRAND DISTRIBUTION, 1874, AT NEW ORLEANS, TUESDAY, JANUARY 8.

Louisiana State Lottery Company.

This institution was regularly incorporated by the Legislature of the State for Educational and Charitable purposes in 1868, with a capital of \$1,000,000, to which it has since added a reserve fund of \$200,000. ITS GRAND SINGLE NUMBER DISTRIBUTION S WILL TAKE PLACE MONTHLY. It never scales or postpones. Look at the following scheme:

Table with columns for prize amounts and descriptions. Includes 'CAPITAL PRIZE, \$300,000', '100,000 TICKETS AT TWO DOLLARS EACH', and a list of prizes from 1 to 1000.

Table with columns for prize amounts and descriptions. Includes 'APPROXIMATION PRIZES: 9 Approximation Prizes of \$300, 9 Approximation Prizes of \$200, 9 Approximation Prizes of \$100'.

187 Prizes amounting to \$110,400. Responsible corresponding agents wanted at all prominent points, to whom a liberally remunerative compensation will be paid.

Write for further information or send orders to

M. A. DALPHIN,

P. O. Box 692, New Orleans, Louisiana,

or to

B. FRANK MOORE & SON,

317 Broadway, New York City.

SECOND GRAND MONTHLY DRAWING, TUESDAY, FEBRUARY 12, 1874.

Capital Prize, \$30,000. Tickets, \$2 each; \$15 each. Scheme of distribution same as above.

Sportsmen's Headquarters

FOR WINES, LIQUORS AND CIGARS.

Outfits for yachting. The camp or field a specialty. Olfives by the case, gallon or bottle.

THOS. LYNCH, IMPORTER,

99 NASSAU ST., Bennett Building, New York.

Sept 27



THREE BARRELED

Breech-Loading Guns.

(TWO SHOT AND ONE RIFLE.)

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

PRICES.

Three barrel, \$75 to \$90.

Double barrel shot, \$50 to \$60.

Damascus barrel, \$50 to \$90.

Twist barrel, \$85.

SEND FOR NEW CIRCULAR.

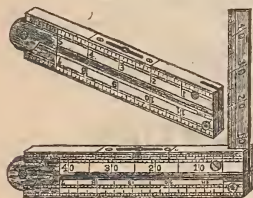
W. H. BAKER & CO.,

Syracuse, N. Y.

E. THOMAS, JR.,

GUNS, PISTOLS, SPORTING GOODS,

174 South Clark Street, Chicago, Ill.



THIS IS A Foot Rule, Level, Square, Plumb and Inclinometer.

It may be used for leveling stands for rest shooting, and gives at once the degree of elevation and plumb to the foot. As a specimen of workmanship, it is faultless, and is strong and durable. So great is our confidence in its merits that we hereby agree to refund its cost in every case where perfect satisfaction is not given. Sent by mail on receipt of \$2.50 STEPHENS & CO., Riverton, Conn. Nov 1 1/2

Fishing Tackle.

H. L. LEONARD, BANGOR, MAINE,

Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty

Great reduction in prices. Trout Rods, full mounted, \$50, formerly \$50; other rods in proportion.

Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my 4 patent waterproof ferrule, and warranted against imperfections in material and workmanship.

Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancelwood. MADE TO ORDER.

I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods.

Also manufacturer of Patent Keels for Salmon and Trout fishing. The lightest, strongest, and handiest Keels ever made.

Full line of FISHING TACKLE always on hand.

Send for circular and price list.

Lessons in Fly Tying.

I will guarantee to teach any gentleman the art of dressing flies in a few lessons. Address

JOHN HAILY, 320 Henry Street, New York City.

Flies sent to order from any pattern. Nov 8 1/2

Amusements, Etc.

Zoological Garden.

FAIRMOUNT PARK, PHILADELPHIA.

Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 1 1/2

THE GREAT NEW YORK AQUARIUM, Broadway and 35th Street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones, Wonderful Horned Cow Fishes and Ascidians, Twelve seals, sea lions, 15 sharks, 40 blow fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Young, marvelous ventriloquist. Miss Lubin in submarine performance. Delightful orchestral concerts. Feeding the animals and sales and other entertainments.

# FOREST AND STREAM

## ROD & GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year.  
Ten Cents a Copy.

NEW YORK, THURSDAY, DECEMBER 20, 1877.

Volume 9.—No. 20.  
{No. 111 Fulton St., N. Y.

### THE WAY OF THE WORLD.

Selected.

There are beautiful songs that we never sing,  
And names that are never spoken;  
There are treasures guarded with jealous care  
And kept as a sacred token.  
There are faded flowers, and letters dim  
With tears that have rained above them,  
For the fickle words and the faithless hearts  
That taught us how to love them.

There are signs that come in our joyous hours  
To chasten our dreams of gladness,  
And tears that spring to our aching eyes  
In hours of thoughtless sadness.  
For the blithest birds that sing in spring  
Will fit the waning summer,  
And lips that we kissed in the fondest love  
Will smile on the first new comer.

Over the breast where lilies rest  
In white hands stilled forever,  
The roses of June will nod and blow,  
Unheeding the hearts that sever.  
And lips that quiver in silent grief,  
All words of hope refusing,  
Will lightly turn to heeding joys  
That perish with the using.

Summer blossoms and winter snows,  
Love and its sweet elysian;  
Hope, like a siren dim and fair,  
Quickening our fainting vision;  
Drooping spirit and failing pulse,  
Where untold memories hover,  
Eyelids touched with the seal of death,  
And the awful dream is over.

D. M. JORDAN.

For Forest and Stream and Rod and Gun.

### Etchings from the East Coast of Florida.

BY THOMAS SEDGWICK STEELE.

(Concluded.)

IN our last letter, the reader bade us adieu while we were silently drifting northward along the palm fringed shores of Indian River, seeking in the few remaining moments of twilight a suitable camp for the night. That night's experience will ever remain fresh in our memory, for our timely Christian teaching to consider "patience a virtue" was of no avail in dealing with the mosquitoes and other insects which came in clouds to our camp fire. We tried our wire-framed nets which had so successfully repelled the black flies of Maine and the Adirondacks, and we wrapped ourselves in the damp sail of our boat, or lay so close to the fire of our "smudge" as to jeopardize our hair and whiskers—still the sharp pointed proboscis of these insects would discover some available part, which aroused our Yankee invention to a new set of tactics.

The only place of importance at which we stopped on our return north to Titusville, was at Pelican Island, fifteen miles south of St. Sebastian River. Imagine an island containing two acres, literally covered with the large and strange birds from which the Island takes its name. Off the bar at the mouth of the St. John's River can frequently be seen the *white* variety of this same species. But this was the brown pelican (*pelicanus fuscus*) a bird the size of a goose, and measuring about five feet from tip to tip. This is one of the most interesting of American birds in its habits and general appearance. It has a yellow head, neck of reddish brown, resembling seal-skin, back and breast of silver gray feathers, webbed feet, while from the lower mandible of its bill, a foot in length, hangs an immense bluish colored bag, six to ten inches in depth, according to age, and capable of holding a gallon of water. This bird is never to be found except around salt water, although the white variety frequents the rivers, while neither kind is to be met with further north than Cape Hatteras. Their flight is heavy, but well sustained, and they will remain many hours on the wing at a great height, at which time the pouch is rolled up out of sight. This membrane is sometimes tanned and made to hold tobacco, gun-powder and shot. Pelicans live to a great age, and have been known to attain three score years and ten.

I repeat, that "the island was literally covered," the beach,

the mangrove trees, the old logs, held all they could conveniently accommodate, pushing and crowding each other for a roosting place. They were provokingly tame, and we could walk within ten feet of them without their being disturbed at our approach, while the surface of the water clear around the island was fairly black with them, pluming and sunning themselves. We sat down on a log and watched their movements, as they drove the scaly prey toward the shore, scooping them, with their enormous pouches, spread like so many bag nets, and devouring the fish by thousands. Over our heads they flew, passing and repassing, and we had to give good heed to our ways, or we were liable to tread on their eggs, which, in the rudest of nests, reposed on the ground. Obtaining one or two of the finest specimens (more would have been murder) we repaired to our boat well paid for our morning's excursion. Then we stopped at a turtle's camp, purchased some curiosities which they had collected on the outer reefs, visited some wild orange groves, and, after days of sailing and camping, again landed at Titusville.

The morning we left Titusville was cloudy and warm, the thermometer about 70 degrees in the shade. Into a large covered wagon we loaded our baggage, and, with an addition of six gentlemen to our party, we drove across the country six miles, to Salt Lake. The gait of the mules would have pleased the chief of police of any well regulated city, as it was hardly four miles an hour. We could at any time slip down from our seats, run back in the pine woods, pick blue and white violets, jessamines and lilies, and return to find the team at almost the same place in the road. It was so convenient that we shall always hold the driver in tender remembrance, and we regret exceedingly we didn't ask for his photograph, cart, mules and all. But as "all things have an end," so did our ride, and we were in time placed aboard an old barge anchored in a lagoon which communicated with the lake.

Here we waited patiently for the captain of the steamer, from 9 A. M. to 5 P. M. We had bid good-bye to our guide at Titusville, who, with the sail-boat and the balance of the provisions, returned to New Smyrna, and we thought of our larder many times during those seven weary hours. To divert our attention from thoughts of the "inner man," we devised target shoots, races, and tramps back on the road after the delayed officer, who was at that moment "the dearest one on earth," but all to no purpose, while the heat increased every hour. There were a large number of boxes of Indian River oranges aboard, and unfortunately for the firm in Jacksonville, to whom they were addressed, they riveted at last our attention. How invitingly they looked, as peeping out between the slats they returned our glances. Never before or since has that fruit seemed so bewitching, and we little dreamed it had so much personal magnetism. We gazed on it, drew closer and closer, thought of our early moral training, and reverence for the eighth commandment that had been instilled into our young heart. On a full stomach commandments are good, and never should be broken, but ours were empty, and hunger has but little conscience. We crept down to the boxes, and, strange to relate, found one of the bars could be pushed one side. Quite a number of the oranges were decayed, and of course it would be of advantage to the firm to have these removed, and we took an infinite amount of satisfaction in displacing them.

Accidentally a good one made its appearance, and knowing it would be difficult to return it, drew our hunting-knife across it and divided our sin, as well as the orange, among our companions, never realizing so before the "sweetness of stolen fruit." It tasted well—we tried another, and another, until we had each eaten five, and copying the address of the firm on the outside of the crate, we took oath to mail to the house their value in postal currency. To this day it must be quite a conundrum to that firm that out of all the letters with remittances enclosed—were there any who failed to keep their promise.

To dispose of an orange gracefully, and with that ease which cares little of the criticising eyes of your friends, takes more than one winter in Florida to accomplish. There is more than one way to eat an orange; and it is a curious study to note the different modes of warfare with that perverse article. Some fruits show evidences of good training at the first bite and lie submissive in your hands, and amenable to all the rules of polite society; an item that enhances the beauty and

grace of the eater. A pear or a peach can be consumed gracefully and deliberately—a charming *à-la-tête* lunch can be held over those high-bred fruits, and the lunchers come out of the contest better and wiser. But an orange resists every effort to become refined and cultivated. It flies in your face, "not to speak," but literally and actually at your first approach. The skin combats you with its oil long before you reach the actual fruit; but if you can overcome that, and not loose your eyesight, then the real engagement begins. Charles Dudley Warner would class the orange among his vegetables for moral discipline. The *habitudes* of this locality have made a profound study of the manner in which to dispose of an orange, and the proficiency they have attained ought to have some influence upon the ignorant stranger. First, you must choose whether you will have the juice drip off your elbows or your ears. It will frequently do both in spite of you. I have seen an old gentleman—an accomplished orange-eater—cut off half the skin, bury himself, as it were, deeper and deeper every minute, and finally reappear, breathless but victorious, only to renew the conflict with another. At the north the orange is a little more susceptible to persuasion. The climate evidently chills its naturally depraved instincts, and, with a little dexterity, a very pretty cushion can be made of the divided peel, and the orange eaten with a degree of respect that is due to its age. The youthful orange, with its "foot on its native heath," is obstreperous and unmanageable.

But we will return to our friends in the barge, whose faces grew brighter after eating of the "forbidden fruit." At five o'clock P. M. the long-looked-for captain made his appearance, and with the working of poles by six stalwart darkies, we were landed at Salt Lake on board the steamer Daylight, which was rightly styled from the number of orifices it had in its dilapidated sides, through which the sun gained admittance. From the lake we passed into Snake Creek, whose windings would have puzzled even its namesake. It was so narrow that the steamer filled the entire stream, the tall canes arising six feet above the upper deck, and brushing the boat on both sides.

Entering the St. John's River over four hundred miles from its mouth, we passed down to Lake Harney, where we were transferred to the steamer Volusia.

The scenery of the upper St. Johns is nothing remarkable. Of course there are our old friends, the graceful palmetto, the mangroves, the live-oaks, and the cypress trees, with the dreamy Spanish moss ever pendant from their branches, while frequently on either hand, for miles, extended the Savannahs, filled with many varieties of water fowl. Occasionally a horseman would make his appearance on the banks, and come aboard animal and all, and now and then we stopped to "wood up." We met a party of hunters with a deer over their shoulders, and the noise of the boat would start the wild turkeys on shore, one of which the captain shot from the wheel-house. At the landings we occasionally caught "brim fish," which had a similar appearance to our roach, and at "Cook's Ferry" we examined some Indian mounds and gathered strange flowers and plants.

After spending three days on the stream, passing through Lakes Munroe and George, interested in every object by the way, I sailed down the river and landed at Palatka, which I had made headquarters for mail.

Thus ended my out-door-life in Florida. The shrill whistle of the steamboat and the dash of its paddles will ere long be as common in this section as elsewhere, but nothing can detract from the enjoyment of my first Etchings from its East Coast.

DEB WARDMANN.—We are always glad to find in our foreign exchanges copies of this excellent paper, which is the official organ of the *Allgemeinen Deutschen Jagdschutz Vereins*. Its editor, Mr. R. Von Schmeideberg, is well known both in the United States and in Germany. The last number which comes to hand contains an excellent account of our bison, with illustrations. German sporting journalism has characteristics of its own, which always make their reading most interesting. Studies of natural history in *Der Wardmann* are always thorough, and such conclusions as they arrive at are always correct. We are too prone in this country to make facts fit to circumstances. It is a mistake to suppose that America is the only country where game is to be found. In Germany, thanks to the protection of their hunting grounds, a day's sport can be had almost at any time which would astonish our own votaries of the gun.

Fish Culture.

THE EASTON SALMON AGAIN.—The Easton salmon capture may be the first Pennsylvania specimen of any size ever taken, it being on our side of the river where it was discovered and shot; but it is by no means the first taken in the Delaware River, having ourselves reported two or three some months ago—one of them below the city on the Jersey side. From the fact that all of them were of large size, it is believed that they belonged to the original lot placed in the river near Easton. Our own opinion is now, that while the upper waters of the Delaware are, to all appearances, peculiarly adapted to the salmon, as we have before stated, it will not multiply. What has the FOREST AND STREAM to say on the subject? Mr. Reeder, of Easton, Pa., one of the State Fish Commissioners, is gathering facts to show that salmon will increase in the Delaware.—Germantown Telegraph, December 5.

[All the accumulated data of nearly ten years of experiment are, not yet sufficient to determine absolutely whether the planted and transplanted fish will propagate in sufficient numbers to replenish the streams and keep them stocked.—FOREST AND STREAM.]

MINNESOTA.—The State will distribute a few hundred thousands of brook trout during the months of February and March. They are to be given gratuitously under conditions which require owners of land through which the brooks flow to sign a contract, to be of record, to let the public fish with hook and line during certain months.

THE CONSTRUCTION OF FISHWAYS.—Every State in the Union has, or should have, laws for the protection, preservation and propagation of food-fishes. In no State where these laws have been enacted, commissioners of fisheries appointed, and appropriations made for stocking streams, have they been abandoned, after a fair trial, but encouraging reports come from all quarters.

The first and most important principle necessary to the success of fish culture in any State, is to give the fish freedom to go to their natural spawning grounds, the head waters of streams. Prevented from doing this by impassable dams or other obstructions thrown across streams, they become wasteful, and in time will disappear below as well as above the obstruction. It is as natural for fish to ascend a stream to deposit their spawn, as for birds to seek the tree-top, in which to rear their young. With these facts before us the importance of constructing dams which will permit fish to ascend the streams, is quite apparent.

A fishway is but an artificial imitation of the means by which river fish pass up rapids, in their yearly migrations. The fish in their upward course reach the foot of the rapids; here they rest awhile, and then shoot up a slight distance, and again rest behind some rock, where they gather strength to make another leap, and continue in this manner until the fall is passed.

To construct a fishway, take a long box, fasten one end to the top of the dam, and extend the other end to the centre of the pool below the dam. Supporting the box to be sixteen feet long, four feet wide, and two feet high on the inside of the box, pieces of plank, called riffles, are placed transversely, about three feet apart. Each riffle is about a foot high, and extends about two-thirds of the way across. If the first riffle is fastened to the right side of the box, and at a right angle with the side of the box, the next, three feet above it, will be fastened to the left side, and extend three inches across it, and so on alternately until the top is reached. The water entering the top of this box, is diverted from right to left in its course, forming eddies or resting-places for the fish in their upward course. These ways can be constructed of stone as well as timber, being, of course, in the former case more durable. Upon the construction of this aid, more than anything else, depends the success of fish culture in all our States.—Scientific American.

Natural History.

SOME QUESTIONS IN ICHTHYOLOGY.

PROF. GILL has very kindly given us some important as well as interesting information, at our desire, in reply to certain letters sent to us by correspondents, which we append:

EDITOR FOREST AND STREAM:

I have found a species of minnow in several streams near our city which is new to me, and have never been able to find any description of them. I have several in my aquarium, and they make the finest variety for that purpose of any fish I have ever succeeded in catching. Besides being very beautiful, they are very hardy. They are nearly round; their backs are brown, extending nearly half way down their sides; then comes a gold bronze stripe the whole length of the body of the fish, followed by a black stripe, while the whole of the under side of the fish is of a beautiful blood red color. Can you give me any information regarding them?

Respectfully,

W. E. S.

SMITHSONIAN INSTITUTION, December, 1877.

EDITOR FOREST AND STREAM:

The small fish found in the vicinity of St. Louis, of which you send a colored sketch, cannot be with certainty identified from the figure, as it is deficient in details and not quite correct. It is probably, however, a species of the genus *Chrosomus*, and belongs to the family of cyprinids, i. e., the same family as do the carp, dace, shiners, etc. The genus *Chrosomus* is nearly related to the *Phoxinotus*, or true minnow genus of England. It contains some of our most beautiful and high-colored fishes. There are two common Western species, the *Chrosomus erythrogaster* and *Chrosomus pyrrhogaster*. Of both of these species, the males at least, in the breeding season, have the belly crimson or scarlet colored, as is indicated by their specific (*erythrogaster*, meaning red belly; and *pyrrhogaster*, fire belly). The generic color is derived from the Greek *chrosai*, color, and *soma*, body. As observed by your correspondent, they are among the most beautiful of fishes for the aquarium.

Yours truly,

THEO. GILL.

EDITOR FOREST AND STREAM:

BALTIMORE, Nov. 2, 1877.

A few days since I took a number of guineons of the ordinary size with hook and line. Upon their being prepared, about five hours afterward, one of them appeared to be unusually round. When this fish was opened there was taken from it alive a flat, white worm, about fifteen inches in length, and about a quarter of an inch in width at its widest portion. It was immediately placed in alcohol while yet exhibiting considerable vitality, and I have it in my possession. I have thought the circumstance worthy of being noticed as an unusual freak of nature. Respectfully yours,

JOSEPH PAINE.

Your favor respecting the tape-worm of the guidgeon and of other fishes is at hand. The occurrence of tape-worms and other entozoa in fishes is by no means a remarkable case, for there are probably no fishes which are entirely destitute of entozoa parasites, and many are infested by quite numerous species. Our own fishes have not been much examined for their entozoaic guests, but many of the European species have been pretty thoroughly searched for specimens. The result has been that all the common species have been found infested with from about half a dozen to a dozen or more species. These species represent genus of a number of different families, and even orders of entozoa. Thus in the guidgeon of Europe (*Gobio vulgaris*) have been found seven intestinal worms; in the barbel (*Barbus communis*), thirteen species; in the bream (*Abramis brama*), twelve species; in the roach (*Leuciscus crythrophthalmus*), fourteen species, and in other fishes corresponding numbers. Thus you will see that "life within life" is exemplified in a striking manner among the fishes as among higher animals. I should add that the figures given are derived from Diesing's great work on intestinal worms (*Systema Helminthum*), published by the Royal Academy of Sciences in Vienna in 1851, and that they would now be somewhat different, but not so materially as to justify the great time and labor which would be necessary to represent the present state of the subject. Yours truly,

THEO. GILL.

For Forest and Stream and Rod and Gun.

DRUMMING OF THE RUFFED GROUSE.

IN the Indiana Geological and Agricultural Reports, 1869, occurs the following by Dr. Rufus Haymond, in his report of the birds of Franklin county:

"*Bonasa Umbellus*.—Ruffed grouse; Partridge; Pheasant. There are still a few lingering among the brush of our uncultivated hill-sides. The curious drumming noise which this bird is in the habit of making during the breeding season in the spring, and upon warm days in the latter part of October and first of November, is familiar to all who live near its haunts, but the manner in which this sound is produced seems to have escaped the observation of nearly every one. Even the great Audubon, whose observations were usually so correct, was mistaken as to the manner of its production. He says 'It beats its sides with its wings in the manner of the domestic cock, but more loudly, and with such rapidity of motion, after a few of the first strokes, as to cause a tremor in the air, not unlike the rumbling of distant thunder.' This is well told and true, with the single exception that the bird does not beat its sides. The drumming is produced thus: The pheasant, standing upon the trunk of a prostrate tree, usually surrounded by brushwood, erects his body to its full height, and produces the drumming sound by striking the convex surfaces of his outstretched wings together behind his back, just as we often see boys swinging their outstretched arms behind them, so as to make the backs of their hands meet behind and opposite their spine. This is the truth of the matter. Audubon's idea that the pheasant could produce a louder noise than the domestic cock, nearly four times his size, by beating its small, compact body with its wings, is, to say the least, a curious mistake. The hollow, rumbling sound could not be produced in this manner."

What Dr. Haymond says in the above report, save that now and then some one logs the hollow log forward, is the only account I have met with about our choicest little friend and his drumming. It is passing strange that Audubon, who must have known almost the exact habits of the pinnated grouse, did not learn that its cousin, the ruffed grouse, makes use of almost identical means to produce almost the same sound—at least, the tone is the same. If you will call to mind the hollow boom of the bittern—known more commonly through the West as the Thunder Pumper, and sometimes as Pump Snick and Stake Driver—you will notice that it produces almost the same hollow sound, had it to locate, and seeming at a distance, though the bird may be close at hand. So again with the cooing of our domestic pigeon, and the beautiful dove in the woods; all these birds have air cells on or about their necks, that answer for sounding boards or sacs. All of them, before giving forth the first note, inflate their pouches, but have different ways of giving it forth.

Let us first account for the drumming of the pheasant. Those that I have seen, and I assure you they were not a few, did not need any hollow log: Where or whenever a cock pheasant, during the warm days of early spring, came across one or more hens, he could do enough drumming, but always preferred to mount some sort of a place where he could see and be seen. He would then work himself into an excited state by walking about, head and tail at right angles with his back, and his ruff extended, much like a dang-hill fowl when going to battle; he would then raise his head up and down several times, when, if you were near, you could see his pouch of a reddish orange color, clear around his neck under his ruff, and distended with air. Suddenly, he would strike his compact little body just as Audubon saw him do, but with his wings only half open. As he would strike, he would give forth a nasal sound, which I have described in a former article on pinnated grouse. The blows then follow in quick succession, till the air is exhausted or driven out of his pouch. He would then go and talk with the hens a bit before another drumming fit would come on. It would seem that a pheasant would want good nails and good, firm bark on his log to hold him, to strike straight out, or beat the air with his wings rapidly enough to produce that noise, when we reflect that the noise he makes when he is flushed can only be heard a short distance.

It is very difficult to get near enough to a cock pheasant to observe his motions, and not flush him. I have made twenty attempts before accomplishing what I desired. Still I could have shot nearly all of them if I had desired. If any sportsman should wish to see the pouch of the ruffed or pinnated grouse, obtain one during the breeding season and hold the neck close down to the body, so that no air can pass; then put a grain of corn or small stone in the bird's mouth, and put his bill in your mouth and blow down the bird's throat. The skin of the pouch adheres at other times so closely to the bird's neck, that it is hard to discover; but during the breeding season, the neck, like that of the red deer, becomes very much enlarged. Now that's enough for this time. White Co., Ind.

MONON.

[Although the question of how the ruffed grouse drums has been discussed at considerable length in these columns in times past, Monon, as far as we know, stands alone with his explanation of this curious phenomenon. Certainly, what we know of the love calls of the Sage, Sharp-tailed, Pinnated

and Dusky grouse, lends no small degree of probability to this novel theory. Every sportsman must have observed the naked spaces on the neck of the ruffed grouse, and we have often speculated on the possibility of their being inflatable, but have never had the opportunity for experimenting with them. It seems odd, though, that none of our ornithologists have ever noticed any habit of this kind.—Ed.]

THE WHITE BUCK OF CAPE COD.

WAREHAM, MASS., Nov. 24, 1877.

EDITOR FOREST AND STREAM:

I indulge in the assumption that all the numerous readers of FOREST AND STREAM have seen the white negro, the white crow, the white ruff, and, laughable contradiction of words, the white blackbird; and that they have read of Capt. Ahab's Moby Dick, or the monster white whale, all of which are understood to be albino, and now I propose to give you a brief pen sketch of the white deer of Cape Cod, and he too, I claim, is an albino. He is a noble buck of the forest, but has so far failed to propagate his species and show to the world the slightest trace of his noble blood in the Jacobian lineage of ring, striped and speckled. I have reason to believe that outside of a limited local circle very little is known of the great number of deer in the forest of Cape Cod, comprising a portion of six towns, the Marshape Reserve in the counties of Plymouth and Barnstable. These forests range from the Vineyard Sound, so to speak, in the town of Falmouth, skirting along Buzzards Bay northerly some thirty miles, and from the same point easterly twenty-five miles; in width varying from five to fifteen miles, dotted with an occasional rich and well painted hamlet, well tilled farms, and last, though not least, the forester's cabin home, an institution not unknown to the knights of the rod and gun. To-day it is reported by experts of unimpaired reputation and knowledge that there are more than five hundred deer gambling in these forests, and that their grand center, or lurking grounds, are in the towns of Sandwich, Falmouth and Marshape Reserve in the county of Barnstable. This fact is unquestionably true, for the deer having been driven from Plymouth county by the great ice which buried over some fifteen thousand acres of forest lands in 1873. Last season, a known fact, over one hundred of these our forest jewels fell before the hunter's gun, but, thank fate, our Legislature this year enacted a law forbidding the killing of deer in this State until 1881; under a penalty of \$100 for each offence, and thus any individual having in his possession a saddle of venison must, if required, prove it was not killed in the State, or suffer the penalty of the law.

Now for the famous white deer of Cape Cod. This marvel was first seen in 1871 and thus he has run the gauntlet and evaded the barbarous hunter for some seven years, and, strange to relate, has been shot at but twice during these years, and it remains a tale yet to be told that he received a shot from either of the veteran hunters who aimed the would-be fatal weapon. The grazing and ranging grounds of this white prince of the forest is comparatively small, and it is believed by the good people of North Falmouth that his nightly lodge during his existence has not been over three-fourths of a mile from the village. He has been seen hundreds of times, and all relate the same story. In size he is unquestionably enormous for his race, and to use the language of an individual who saw him last week lying down in a field in company with three red, or brown deer, "In proportions, judging from his footprints in the sand, he will compare favorably with a decent-sized cow." When he rose to his feet and while stretching he faced our informant, who says his ponderous horns reminded him of a "large rustic rocking-chair." As this, the prince of our forest, is not a hunting I hope some student of natural history, a Farmer, for instance, will feel induced, with some Yankee hurdle device, to capture this deer alive and place him in some one of our American city public parks, and show to the world the renowned albino deer from Cape Cod.

CYRUS LISCOM.

THE MIGRATORY QUAIL.

RUTLAND, Dec. 12, 1877.

EDITOR FOREST AND STREAM AND ROD AND GUN:

The lines chosen by your correspondent in no respect resemble the migratory quail. In color they resemble the ruffed grouse or partridge of N. E. The head of the female is quite similar to our partridges, and the male is darker about the head than the female, with quite dark marking under the neck. There are no white feathers about the bird. The legs are shorter than the American quails, but also dark like the partridge. My faith in the return of the birds here is unshaken, and that in twenty years they will be the most numerous game here in America. The only question is, will they find a suitable wintering place in the South? Yours truly,

M. G. EVERTS.

SHELLS IN RED HEAD DUCK'S CRAW.

EDITOR FOREST AND STREAM:

Being engaged in preparing for the press a paper on the Mollusca of the Bermudas, I should feel greatly obliged to W. J. R. Sutton, whose identification of *Littoria bombyx* occurring on gulf weed, appears in your last issue, if he would kindly forward me for inspection a few specimens of the shell, as I have only found *L. atlantica*, Rang, an inhabitant of the weed which floats to the Mulden shore. If he desires if I shall be happy to supply him with specimens of the latter species for his cabinet.

Haitiaz, N. S., Nov. 20.

J. MATTHEW JONES.

The above communication having been handed to Mr. Sutton, we have received from him the following note:

EDITOR OF FOREST AND STREAM:

Referring to the letter from Mr. J. M. Jones, handed to me to-day, I have to say the shells sent me from craw of red-head duck were considerably decomposed and somewhat difficult to identify. Capt. J. H. Mortimer, of the ship Hamilton Fish, to whom I showed them, is quite certain the shells sent and *Littoria bombyx* were identical. Capt. M does not know the *L. atlantica* that Mr. Jones speaks of, but the *L. bombyx* he is familiar with, having picked them up on the gulf weed while on one of his many voyages. I take pleasure through the kindness of Capt. M. in sending Mr. Jones to-day a few specimens of the *L. bombyx* also some of the gulf weed with the web spun by *L. bombyx* attached and have accepted of his kind offer of *L. atlantica*. Respectfully yours,

New York, Nov. 26, 1877.

JAS. R. SUTTON.

AN AGGRESSIVE BUCK.

EDITOR FOREST AND STREAM:

BOSTON, Dec. 14, 1877.

The old buck on our Boston common has killed no less than six deer in the same enclosure with himself, ending last night with the old doe. Ought he not be separated most of the year from the rest, or would it be feasible to saw off his antlers? Please let me have reply as to what is the usual custom in regard to management. He is eight years old, well formed and father of a number of healthy deer. No cause for dislike or enmity appeared in the victims. The autopsy of the old doe to-day gave numerous bruises and patches of effused blood in peritoneal

The Kennel.

FO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

FOX HUNTING.

EDITOR FOREST AND STREAM:

It would seem from what I read in the New York papers, and from my correspondence, that a subscription pack for hunting the fox has, after many an effort on the part of a few game young Gothamites, at last become *au fait accompli*—an accomplished fact, as the French would say—and am rejoiced that my predictions of possible failure, expressed in your columns some time since, have proved groundless.

I feared that your traveled young Anglo-maniacs, dazzled by the really magnificent hunting equipages of Leicester, would aim too high, and overshoot the mark by attempting the introduction of the fashionable high strung hounds of the most famous hunting shires of England, but a friend, a "top-sawyer" and "first flight" man of your Queen's County hunt, Mr. A. P. B., writes me as follows: "So far we have been successful, and I think we have established the pack so that it will last. I don't altogether agree with you about the American hounds answering our purpose better than an English pack, for the following reasons: The American hounds that I have seen or heard of are all taught to race among themselves, whereas an English pack is taught to keep together, or pack, and can be more easily controlled by the huntsman. Our hounds are more harriers than foxhounds, being only about eighteen inches at the shoulder.

My friend's criticism of American hounds is in the main just, the racing among themselves of American hounds naturally follows from the manner in which most American packs are constituted. In Maryland, Virginia and Mississippi, the States to which my hunting experiences are confined, generally—not always—the hounds composing a pack belong to different parties living in the same neighborhood within horn blow of each other, and each man comes to the meet followed by his own dogs. As may be supposed, the rivalry between these parties to own the fastest dog is very great, and thus the most desirable qualities in a hound are sacrificed to mere speed; but where the whole pack has but one master, as is the case with those of T. G. T., of Gaston; Pious Jeems, Gen. Starke, Broadnax, and others that I might mention, a dog may be rejected for too much speed, as he would be for the lack of it.

Forty years ago, when I hunted my own pack in the Maryland settlement, near Church Hill, in Mississippi, I gave away several hounds for being incorrigibly fast. I use the word incorrigibly, because I vainly made every effort to correct the defect by putting drags upon them in the shape of a trailing rope fastened to a collar, and in one instance by a ligature on the hind leg, just above the hock. These dogs, though excellent in their way, destroyed the harmony both of the action and music of my pack.

But in Mississippi speed was not so great a desideratum, for we hunted the gray fox, a varmint which for all the game qualities will compare with the red fox, as would a "hob-tailed yellow cur," with George Coburn's "Dash," or Bryson's "Gladstone." But in my judgment the gray, with his short doubles, affords more sport than the indomitable and untiring red, and I hold it to have been a great mistake to have imported the latter from beyond the seas.

After thirty years' experience in riding to hounds after both red and gray foxes, I must say that the most perfect sport I ever enjoyed was when after a gray fox with those Mississippi hounds, which ran so closely packed that they might—to use a hunting phrase—have been covered with a blanket. I have had capital sport, too, with red foxes. I have ridden forth at the first glimmering of the dawn, and witnessed with a delight which no other field sport can give, the trailing of an old red through all the intricacies of his midnight wanderings, until a grand burst of thunderous music from the eager pack would announce that he was off. Mounted on a gallant horse, I have followed the swiftly flying pack in a delicious delirium of excitement, such as I fancy a Hampton, a Fitz Lee, a Jackson, or a Custer might have felt, as with lifted sabre he lead a victorious cavalry charge. I have enjoyed the triumph of being first in at the death, and winning the white-tipped brush, that trophy so prized by every true sportsman; but then would come the reaction. Weary and hungry, I would find myself twenty miles from home, on a horse so tired he could scarcely keep his legs.

The gray fox, rarely runs outside of a circle of five or six miles, taking his starting-point, and the limit of his endurance is rarely over two hours, hence there is no such reaction after the excitement of hunting him, and I for one deplore the gradual extinction of our native fox, and would, if I could, restore him to the dominion which is being slowly but surely usurped by the red foreigner. In an early volume of the old "Turf Register and Sporting Magazine" may be found the precise date at which the first red foxes were imported from England to America. They were turned loose on the eastern shore of that State by a famous sporting squire, whose name I do not remember. They were confined to the eastern shore for several years, until during an unusually hard winter the Bay was frozen down to the capes, when the reds crossed over to the western shore, where they have almost superseded the native grays. Red foxes were also imported into Virginia, and the date of their introduction on Long Island is a matter of record. While attending the field trials at Bellemead, near Nashville, I heard an enthusiastic fox hunter regretting that they had at a comparatively recent date been also brought to that neighborhood, and that they were rapidly driving out the grays. And this is the case wherever the red fox gets a foot-

hold—the native reynard is driven away or destroyed as the native red man is by his white brother.

You have recently received at your office a great curiosity, a *Lynx natterae*, in the shape of a fox pad, which I hope you will hang up among your most valued trophies. A recent letter from that fine old Southern gentleman all of the olden time, T. G. S., of Gaston, who sent you the pad, alludes to it as follows: "I send you the right hind foot of an old red fox which Broadnax and myself caught this morning, after one of the most vigorous and electrifying runs ever witnessed in an hour and a half. I will in a few days write you a full description of the chases we had after him this week. This fox has been in this vicinity since 1862, and has afforded us sport from that date to the present, and has been the instrument of our testing the qualities of all brag hounds that competed with my pack and Broadnax's. We rarely ran him but on such trials. His track was well known to every person in this neighborhood who ever notice tracks. The right hind foot was much smaller than the other, strikingly so. I send it to you. It is really a curiosity in mark, and is the first white foot I have ever seen on a red fox. Both hind feet were of the same color."

Let me conclude my rambling letter with congratulations on the accession to your columns of so charming a writer on hunting as T. G. T., of Gaston, for some of the admirers of the FOREST AND STREAM complained to me when I was in Nashville that you did not give sufficient space to that noblest branch of field sports—fox hunting. F. G. S.

POINTS IN JUDGING DOGS.

WE have been requested to reproduce the points in use by judges on bench shows of dogs. As canine exhibitions are getting more and more in vogue, very possibly the publication of these points will be useful to many of our readers.

For these points we are indebted to the *London Fancier's Gazette*, to Stonehenge, Idstone and other leading authorities. We trust to be able to complete the whole series in two publications. We may remark that there are in use for special dogs subdivisions in points, as for instance in judging of a mastiff, the head is divided into—size, 10; shape, 10; eyes, 5; ears, 5; muzzle, 5, or thirty-five points in all. In some cases the whole head is lumped at thirty-five, the judges discriminating between the various fine distinctions. Should any modifications occur in these points—for we are led to believe that some changes are possible—our readers will be sure of having the earliest information imparted to them:

ENGLISH SETTER.			
Head.....	25	Feet.....	10
Neck.....	10	Loins and Thighs.....	15
Shoulders.....	15	Coat.....	10
Legs.....	10	Stern.....	5
IRISH SETTER.			
Head.....	20	Shoulders.....	15
Neck.....	5	Back.....	10
Legs.....	5	Loins.....	10
Feet.....	5	Hind-quarters.....	15
Stern.....	5	Color.....	15
BLACK AND TAN OR GORDON SETTER.			
Head.....	20	Shoulders.....	15
Neck.....	5	Back, loins and hind-quarters.....	20
Legs.....	5	Stern.....	5
Coat.....	10	Color.....	15
POINTER.			
Head.....	25	Feet.....	10
Neck.....	10	Loins.....	10
Shoulders.....	15	Stiffness.....	5
Legs.....	10	Stern.....	15
CHESAPEAKE BAY DOG.			
Head.....	15	Loins.....	10
Neck.....	5	Coat.....	15
Shoulders.....	10	Tail.....	5
Chest.....	15	Feet.....	10
Size.....	5	Legs.....	10
IRISH WATER SPANIEL.			
Head.....	25	Loins.....	10
Ears.....	10	Hind-quarters.....	10
Feet.....	5	Coat.....	15
Legs.....	5	Stern.....	10
Back.....	10		
FOXHOUND.			
Head.....	15	Back.....	10
Neck.....	5	Loins.....	10
Legs.....	10	Hind-quarters.....	15
Feet.....	15	Stern.....	5
Shoulders.....	15		
HARRIER.			
Head.....	15	Back.....	10
Neck.....	5	Loins.....	10
Legs.....	10	Hind-quarters.....	15
Feet.....	10	Stern.....	5
Shoulders.....	15	Girth or depth of rib.....	5
BEAGLE.			
Head.....	15	Back.....	10
Neck.....	5	Loins.....	10
Legs.....	10	Hind-quarters.....	15
Feet.....	10	Stern.....	5
Shoulders.....	20		
DAKHOHOUND (from London Field).			
Skull.....	10	Feet.....	10
Jaw.....	10	Stern.....	10
Ears, eyes and lips.....	10	Coat.....	5
Length of body.....	15	Color.....	5
Legs.....	15	Size, symmetry & quality.....	10
GREYHOUND.			
Head.....	15	Hind-quarters.....	15
Neck.....	10	Back.....	10
Shoulders.....	15	Loins.....	10
Legs.....	10	Tail.....	5
Feet.....	10		
DEERHOUND.			
Head.....	15	Feet.....	15
Neck.....	10	Loins.....	10
Shoulders.....	15	Coat.....	10
Legs.....	10	Hind-quarters.....	15
BLOODHOUND.			
Head.....	25	Back.....	10
Neck.....	5	Loins.....	15
Shoulders.....	15	Hind-quarters.....	10
Legs.....	10	Stern.....	5
Feet.....	5		

cavity. Heart on right side engorged with venous blood; so lungs. No bones fractured, skin not penetrated. Exhauation of heart direct cause of death. SAWYERS.

[The best thing to be done would be to remove the buck. Perhaps it would be wise to get rid of him entirely. When bucks grow old, they frequently become aggressive, and they require watching to prevent their doing serious mischief. The great reason for the trouble was that the range the deer had was too restricted. Deer seem to form family parties, and do not brook intrusion from others of their kind.—Ed.]

NOTES.—The red-headed woodpecker, *Melanerpes erythrocephalus* has been found in unusual numbers in Connecticut this fall. A good many have been seen about New Haven, and three specimens, all young birds, have been taken at Portland. The terrible easterly gale which caused so much damage along our coast about Nov. 25 brought a rare bird to our shores. A specimen of the little auk, or dovkik (*Megulus alle*), was secured in New Haven harbor the day after the storm by Mr. A. H. Thompson, of South Haven. It was very much emaciated, and was apparently unable to fly, since its captor was able to approach it in a canoe, and, striking it with an oar, secured it. Its stomach was quite empty, and it was evidently a lost bird. Mr. Thompson presented it to the Peabody Museum of Yale College.

HORNED DOE ANTELOPES.—*Ferrisburgh, Va., Nov. 26.*—In one of your late issues I noticed an inquiry regarding horned antelope does with editorial comments thereon. Remembering an incident once happening me in California, I send it:

Riding in the San Joaquin Valley in the early spring of 1871, I suddenly started a horned doe from the nearly dry bed of an arroyo. Upon recovering from her first fright, she charged to within ten feet of my horse, and then began running around me in short circles, stopping now and then to stamp, toss her head, etc., showing in every movement that her young one was hidden near by. I was in a hurry, and could not stop to look it up, so, after watching it a few minutes, I rode on. She was large, as are all horned females, and in fair order. Of course, she may not have had young, I cannot be positive of that; but I never knew a deer to act in this way unless it had a fawn secreted near. Did you? VERD MONT.

[Never; but more decisive evidence would be necessary to shake our belief that horned doe antelopes are barren.—Ed.]

AN ALBINO QUAIL.—The *Buck's County Gazette* records the shooting of a pure white quail a few days ago at Newton, N. J., by Lewis M. Morford: "The bird is of full size and of full plumage, which is as white as the driven snow. There was another bird equally white in the same bevy, but it escaped. The only mounted specimen of an albino quail in this vicinity, except the above, is the one which ornaments the office of Chief Justice Beasley at Trenton."

A NEW FISH.—The *Cape Ann Advertiser* records the discovery of a fish hitherto unknown to science:

The schooner Wachuset, recently arrived from the Banks, brought in a curious fish, a little over four feet long and having a round tapering body and large head, of a species unknown to our fishermen, but having somewhat of the appearance of a shark. It was caught on a trawl and preserved as a curiosity. On arriving at port, the fish attracted the attention of Capt. Robert H. Hurlburt, who acted as pilot on board the steamer Speedwell, employed in fishery investigations in our waters last summer, and he at once secured the prize and forwarded it to Prof. Spencer F. Baird, of the Smithsonian Institute at Washington. In acknowledging the courtesy of Capt. Hurlburt, Prof. Baird points out how our fishermen can render invaluable aid to the government in its fishery investigations, and urges that all curious fish and marine specimens be carefully preserved and forwarded to Washington. We hope that this matter will receive attention, and that our fishermen will spare no effort to advance scientific inquiry in this direction. We quote from Prof. Baird's letter to Capt. Hurlburt, as follows:

"If you could have the word passed to parties going to Georges and elsewhere fishing during the winter to bring back with them everything curious, we should doubtless get some prizes. Ask them to wrap the fishes up in paper or rag, and put them on ice so as to keep them safely. In shipping, please mix ice about the size of your fist, or less, with sawdust, which will keep unmelted for several days. It is very desirable, too, that the fish be wrapped in something to prevent its rubbing against the ice, or being langed about when the ice melts. Everything in the way of corals, sea plants, etc., such as they haul up on the Banks, will be acceptable. Do you know, or does anybody in Gloucester know where the hagdons breed? Notwithstanding the myriads on the Banks, I have never been able to find out where they nest. Would it be possible to get the fishermen to bring in some hagdons so that you can send them to me this winter? Abundant as they are at sea, little is known of them in museums. There are three or four kinds, all of which are desirable.

"The fish has just arrived. It is a wonderful prize, a Greenland fish never before seen south of Labrador. It is known as the chimarru, and is a kind of cross between a shark and a sturgeon. Get more if you can. We shall make a plaster cast and photograph.

"Nov. 30.—Since writing you about the curious fish, or chimera, I have ascertained that it is still more interesting than I supposed, in being an entirely new species, not before described. I hope, therefore, you will continue your efforts in our behalf, so as to get some more specimens of rare, if not of new species. A number of additional specimens of this same animal would be desirable. It was a female, and the males are very different in shape and appearance."

WANTED, A BULL MOOSE.—A gentleman has a female moose, and is very desirous of propagating the breed. There must be among our numerous correspondents and friends in the North some one having a bull moose. With the possessor of such an animal we should be glad to enter into correspondence.

OTTERHOUND.

Table with 2 columns: Feature and Value. Features include Head, Neck, Legs, Feet, Shoulders.

ROUGH TERRIER (Istone).

Table with 2 columns: Feature and Value. Features include Head, Neck, Shoulders, Chest, Legs.

BLACK AND TAN TERRIER.

Table with 2 columns: Feature and Value. Features include Color, Coat, Markings, Head, Eye, Neck.

YORKSHIRE BLUE TAN SILKY COATED TERRIER.

Table with 2 columns: Feature and Value. Features include Good blue without tan, Good tan, Length of coat, Silkyiness.

SKYE TERRIER.

Table with 2 columns: Feature and Value. Features include Length of coat, Texture, Color, Head.

DANDIE DINMONT TERRIER.

Table with 2 columns: Feature and Value. Features include Head, Ears, Eyes, Color, Coat.

BULL TERRIER.

Table with 2 columns: Feature and Value. Features include Head, Neck, Ears, Chest, Shoulders, Loins.

BULL DOG.

Table with 2 columns: Feature and Value. Features include Skull, Stop, Ears, Eyes, Face, Chop, Nostrils, Neck.

THE CHARLESTON (S. C.) BENCH SHOW.

CHARLESTON, Dec. 16, 1877.

EDITOR FOREST AND STREAM:

Our poultry and dog exhibition closed yesterday, and below I give you a list of the dogs exhibited and those to whom prizes were awarded.

POINTERS AND SETTERS.—Judges—Col T Taylor, J P Lesene, E Walls, W G Hinson, Dr J L Scheraga. The entries were as follows: Setter Dogs, F G S Lucas, Charleston; W C Pugh, Columbia; A M Hume, Charleston; W F Brittain, Athens, Ga; W F Brittain, Athens, Ga; Governor Hampton, Columbia; M Haig, Charleston; E H Sparkman and G A Douglass, Charleston.

OTHER DOGS.—Judges—Col J B Sloan, Maj A Vanderhorst, Maj T B Hayne, W R Blure, G W Wragg. The entries were as follows: Russian bearhound, Andrew Moffett, Charleston; Russian boar pup, Andrew Moffett, Charleston; Irish stag pup, M J Jones, Charleston; Skye terrier—Wm Gregg, Jr, Charleston; B E Baker, Charleston; W F Brittain, Athens, Ga; Scotch terrier, Mrs D F Fleming, Charleston; bulldog, J McGinnis, Charleston; bull bitch, M C O'Neill, Charleston; bull bitch, P McGinnis, Charleston; pair coach dogs, Dr W M Fitch, Charleston; pair coach pups, Dr W M Fitch, Charleston; Newfoundland Dogs—J H Horton, Charleston; L D de Sausure, Charleston; John E. Cay, Charleston; Newfoundland pup, J H Horton, Charleston; retriever, John H Holmes, Charleston; George L, Charleston; bull and mastiff bitch, W S DeHay, Charleston.

POINTERS.—Imported dog, Frank, Dr H B Horiback, diploma; imported bitch, no name, R Boston, diploma. SETTERS.—Imported Gordon setter dog, Brown, Governor Wade Hampton, diploma; native setter bitch, Bit, T S Ingleby, diploma. HOUND DOGS.—Russian boarhound, Rex, Mr A Moffett, diploma; American deershound, Jeff Davis, Maj J C Minott, diploma; American deershound, Fashion, Maj J C Minott, diploma; imported foxhound, Sportman, Col T Taylor, diploma; imported foxhound, Belle, Maj A B Rhett, diploma; imported greyhound, Foyle, Mr C A Hill, diploma.

OTTER DOGS.—Skye terrier dog, Trip, Master B E Baker, diploma; Scotch terrier dog, Snider, Mrs D F Fleming, diploma; bull terrier dog, Nero, James McGinnis, diploma; bull terrier bitch, Shot, P McGinnis, diploma; coach dog — Dr W M Fitch, diploma; coach bitch, — Dr W M Fitch, diploma; Newfoundland dog, — J E Taylor, diploma; split dog, — Mr Wale, diploma; black and tan terrier bitch, — W S DeHay, diploma; mastiff dog, Hampton, E L Roche, diploma; mastiff bitch, Prolok, Edward Roach, diploma.

ST. LOUIS DOG SHOW.—The gentlemen in charge of this great canine event are working with a will. Enthusiastic themselves, they have apparently endowed others with the same feeling. The prizes of a special character are coming in rapidly. Among them we may mention a Greener gun, presented by the Simmons Hardware Company, and F. O. de Luze, agent for Spratt's patent, London, gives a handsome silver cup valued at \$25 gold, for the best native English setter dog, open class. The appointment of Mr. Lincoln as superintendent is an excellent choice. It would be an admirable thing if the breeders—those owning leading dogs—would gather at St. Louis, and pit champion against champion. Here would be the chance to determine who owned the champion dog of America. We might suggest to Messrs. Raymond, Burges, Smith, Foster, Morford, Nesbitt; to Messrs. Stoddard, Jarvis, and owners of various and special breeds to exhibit their cracks. Mr. John Davison will be present at St. Louis and act as one of the judges. We hear of quite a number of toy and fancy dogs to be sent from New York and Philadelphia to St. Louis. Just as soon as possible we will give full information as to the proposed reduction of rates on the railroad. We are only too glad to give this St. Louis exhibition, knowing the high standing of the gentlemen who are to manage it, our fullest support. We are quite satisfied that, as far as the officers have to do with this bench show, it will be loyally and honorably conducted.

THE MASSACHUSETTS KENNEL CLUB.

BOSTON, Dec. 17, 1877.

EDITOR FOREST AND STREAM:

The Massachusetts Kennel Club was organized Dec. 6, 1877, and the following gentlemen elected to office: Walter Cowing, President; Ellerton Door, Vice-President; John Fottler, Jr., Vice-President; Timothy T. Sawyer, Treasurer, and Dr. Edw. Foster, Secretary. We are indebted to James F. Curtis, Edw. E. Hardy, Dr. Wilson Borland, Saml. Rodman, Saml. Hammond, Dr. Francis B. Greenough, Luther Adams, Chas. E. Fuller and several prominent New Bedford sportsmen, together with the officers, for the interest they have displayed in organizing this club. The first meeting after organizing adjourned until Friday afternoon, Dec. 21st, when the question of a bench show will come up for action. That the club will give one is an assurance, and probably in close proximity with the Westminster exhibition, as many of the best Western dogs will then be East, and it is hoped that some of the English breeders, who may be in the country at that time, will be present with exhibits. The great difficulty will be to procure a building suited to this purpose, as the Tabernacle, which is well-adapted to it, is consecrated to religious uses, and it will be hard to find another building of sufficient size. As matters progress you may expect to hear full particulars from HUB.

THE WESTMINSTER KENNEL CLUB.—The Westminster Kennel Club last Saturday filed their articles of incorporation in the County Clerk's office. It is stated that the objects of the society are to collect, own, hire, sell, exhibit, board and train dogs; to build and establish kennels necessary for such purposes; to study and improve the breed of dogs, and to provide a club house where members may meet for lawful sporting purposes. The incorporators are: Le Grand B. Cannon, Alexander S. Webb, C. de Bris Wagstaff, William M. Tilton, Henry W. Webb, William A. Morgan, William Seward Webb, George de Forrest Grant and Frederick K. Barnard.

DANDIE DINMONTS.—A correspondent writes us: "Dandie Dinmonts are rare even in England. In this country good dogs are very scarce. Col. George Post, of Basking Ridge, N. J., is said to have as good dogs of this rare breed as there are anywhere, having them from English kennels, where they are bred purely and are used for field purposes, such as badger drawing, other hunting (a most trying ordeal for the gamest dogs), and the general pursuit of varmints."

A PLUCKY FOX.—Our German contemporary, the Deutsche Jagdzeitung, tells of a brave reynard, and the narrator is the Baroness Von Recum:—"Walking on my grounds near the Argenrather Forest, accompanied by my three greyhounds; I had not gone far before I discerned in a piece of uncultivated land a fox. I called the dogs, who immediately sprang at the fox. Imagine my surprise when reynard stood his ground and got the better of the dogs. The skirmish took about two minutes, but the fox, refusing to show fight, after a while broke, and the dogs went after him, though eventually reynard made his escape."

"WHO HAS FOUND THIS BOB-TAILED DOG?—We must call upon you again for a Black Dog, between a Greyhound and a Spaniel, no white about him, only a streak in his Breast, and Tayl a little bobbed. It is His Majesties own Dog, and doubtless was stolen, for the Dog was not born nor bred in England, and would never forsake his Master. Whoever finds him may acquaint any at Whitehall, for the dog was better known at Court than those who stole him. Will they never leave robbing his majesty? Must he not keep a dog? This dog's place (though better than some imagine) is the only place which nobody offers to beg."

Come, look for this dog, for he is a king's dog, and belongs to his Majesty, King Charles of England, and he went astray in June, A. D., 1660. Alack! That dog, no matter how much Charles can offer us, will never turn up! Still, this advertisement is worth looking at and remembering, for it was the very first of the "Lost and Found." Advertising agents ought to cut it out; it might bring them luck.

DOG AND FOX CROSS.—A correspondent writes to the Live Stock Journal and Fancier's Gazette: "In answer to your correspondent's inquiry, I beg to state that there is no difficulty in obtaining the dog and fox cross. It was a tame dog

fox which warded my terrier bitch; but I have seen no less than three colley bitches throw pups that were undoubtedly half fox. Now, these cases must have occurred in the hills. Your correspondent is surely aware that when animals are in season they are not at all particular, but I would strongly advise him not to have anything to do with such a cross, or they may play him as bad a 'plisky' as they did me."

—Mr. E. F. Hardy's dog pup Ranger, which took first prize in native English setter pups at Philadelphia, has been sold to Mr. John Sartori, of Philadelphia.

VISITS.—Nov. 3, 1877.—Mr. J. C. Higgins, Delaware City, pure Laverack setter bitch Petrel, to Mr. C. H. Raymond's pure Laverack setter, Pride of the Border, at Fox Farm, Morris Plains, N. J.

Dec. 1, 1877.—Mr. C. H. Raymond's, Fox Farm, Morris Plains, N. J., pure Laverack setter bitch Fairy, to Mr. J. C. Higgins, Delaware City, Del., field trial setter Lincoln (Dan—Lill II.).

Dec. 4.—The pure Laverack setter, Fairy II., the property of Mr. W. H. Gumbes, Oaks Station, Montgomery Co., Pa., visited the pure Laverack stud dog Pride of the Border, owned by Mr. C. H. Raymond, of Fox Farm, Morris Plains, N. J.

SPLIT BAMBOO RODS.

To our customers and the public:—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON, Manufacturers, 65 Fulton Street, N. Y.

Sea and River Fishing.

FISH IN SEASON IN DECEMBER.

Black Bass, Micropterus salmoides; Yellow Perch, Perca flavescens, M. nigricans. Sea Bass, Scomopus ocellatus. Pike of Pickerel, Esox lucius. White Perch, Morone americana.

FISH IN MARKET.—At Mr. Blackford's this week a smelt of extraordinary size was exhibited. It measured 12½ inches in length, weighed half a pound, and was caught in Lake Champlain. The bluefishing of the Virginia coast has been disastrous this winter, and a good many thousands of dollars have been sunk. The fish are in plenty some fifteen or twenty miles out at sea, where they find food in abundance, but will not approach the coast. The loss of this fish to New York is quite an item, since it is from the fall supply of the bluefish that the stock in the refrigerators is supplied. Our quotations are: Bass, 20 to 25 cents; smelts, 20; bluefish, 15; salmon, frozen, 30; mackerel, 15 to 25; Southern shad, \$1.50; white perch, 15 cents; Spanish mackerel, 25; green turtle, 18; terrapin, \$18; frost fish, 8 cents; halibut, 18; haddock, 8; codfish, 8; blackfish, 15; herring, 6; flounders, 12½; eels, 18; lobsters, 10; sheephead, 25; scollops, per gallon, \$1.25; soft clams, per 100, 30 to 60 cents; whitefish, 18; pickerel, 15; sunfish, 10; perch, 10; salmon trout, 18; black bass, 18; hard crabs, per 100, \$3; soft crabs, per dozen, \$1.

FISHING MOVEMENTS.—There have been 14 arrivals of the fleet the past week—8 from the Banks, 5 from Georges and 1 from the South, mackereling. The receipts have been 182,000 lbs. halibut, 40,000 lbs. codfish, and 100 bbls. of mackerel. The continued presence of the schools of fish just off the Cape, and the continued good weather seems providential, as the oldest among the fishermen cannot recollect of such another instance, at this season, when the fish have proved so large, so near in shore and so plentiful.—Cape Ann Advertiser, Dec. 14.

WISCONSIN—Menasha, Dec. 16.—I enclose clipping from Ashland Press, account of killing moose on line of Wisconsin Central Railroad. Another has since been killed in same vicinity. Skin of first weighed sixty pounds. Fall shooting here not very good. Ducks unusually shy. Deer plenty thirty miles to the West.

Joseph Hasper, the Butternut bear hunter, has appeared in a new role. On Friday last Mr. Edward Burns discovered a moose just outside the door yard of the Butternut Hotel, and as Mr. Moose disappeared before Ed. could get his gun, he informed Mr. Harper, who immediately put himself on the trail and made moose meat of the unfortunate visitor, after following him about four miles. It was a female critter, and dressed over 750 pounds. Mr. Hart, our informant, says he should judge that she stood near seven feet high.

[This is an event in sporting annals worth chronicling. It is quite likely that Wisconsin affords even better sport of this kind than Maine. The range of the moose is from Cape Breton to Washington Territory.—Ed. F. AND S.]

SOME RELICS OF ANCIENT SPORT.—We have received two precious diminutive midge flies from Dr. T. Garlick, of Ohio, which we shall ever preserve and cherish by reason of their associations. The venerable doctor, although afflicted and obliged to write reclining on a lounge, retains all his early enthusiasm for sport, as a reference to the following lines will determine:

BEDFORD, Ohio.

CHARLES HALLOCK: Dear Sir—I enclose two Irish midge flies, one of which has the credit of having landed a trout of two pounds and a half, less one ounce, by my Indian guide, George Puckquash, who lives at the Sant Ste. Marie, the best back-countryman and fly fisher I ever saw. The trout mentioned above was caught in Garden River, some eight or ten miles below the Sant Ste. Marie. George had on his casing line two of these little midge flies, and a larger one, the end

ly. He made a cast and hooked a trout on each midge fly, and landed both; the smallest weighed two pounds and one ounce. I thought, and still think, that it was the nearest piece of angling I ever saw done by any one. I have often wondered why those big trout wanted such little flies; a million would hardly make a meal for a trout of that size.

T. GARLICK.

EXTRACT FROM A FISHING JOURNAL KEPT AT HALIFAX INLET, EAST FLORIDA, IN 1877.

Feb. 3—Clear; wind northwest; thermometer at 8 A. M., 66 deg. Went out with boy in boat; fished from 11 A. M. till 4 P. M.; with rod and reel, he with hand line; out mullet for bait. We got eleven bass from 4 lbs. to 14 lbs. in weight; one salt-water trout, 5 lbs.; one grouper, 4 lbs.; one sheepshead, one blackfish, six soup—75 lbs. of fish. I lost a large bass which took away my hook.

Feb. 5—Went in boat with B. P. to mouth of Spruce Creek; fished from 11 till 4; got twelve bass, weighing from 4 to 7 lbs., and one drum weighing 16 lbs.; bait, cut mullet. I lost two hooks and two sinkers from sharks. Weather clear, wind west; thermometer at 8 A. M., 70 deg.

Feb. 9—Clear; wind north; thermometer at 8 A. M., 55 deg. Went in boat with J. G. to Spruce Creek; bait, clams and tidlers; wind high and water rough; brought home twenty-one sheepshead, average 4 lbs., and six drum from 4 to 12 lbs.

Feb. 10—Clear; wind west; thermometer at 8 A. M., 48 deg. Went with B. P. in boat about 11 A. M. to Live Oak Point; wind high; found shelter and began to fish in a deep hole among snags. There we took 1 with rod and P. with hand line, and cut mullet, 7 conger eels, from 4 to 7 lbs. Savage brines they were, well armed with teeth, and it was necessary to kill them outside the boat, or they would have driven us out of it. Besides these we got a dozen blackfish, average half a pound, and one 12-pound bass, which I played 15 minutes before he could be brought to gaff.

Feb. 22—Clear; wind north; thermometer at 8 A. M., 50 deg. Went with C. in boat up Spruce Creek; both used rod; bait, clams and mullet. Fished from 10 till 4; returned with 21 sheepshead, 6 drum, 3 bass of 15, 10 and 6 lbs., one conger eel and two blackfish; about 120 lbs. in all.

March 1—Cloudy, with showers; wind northeast; thermometer at 8 A. M., 60 deg. Went with C. and P. up river for bass; mullet bait. We got ten weighing 50 lbs., and lost 5 more. Also three hooks from sharks, and killed a sting ray weighing some 60 lbs.

March 5—Clear; wind east; thermometer at 8 A. M., 62 deg. Went with P. and C. across the inlet to the other river; two rods. Fished from 10 A. M. till 3 P. M.; got forty sheepshead, two bass, six snappers averaging two pounds, and two pigfish 1 lb. each; about 150 lbs.

March 8—Clear; wind southeast; thermometer at 8 A. M., 64 deg. Went with C. and P. to same as before. Took forty-two sheepshead, six bass, one snapper and five small bluefish; about 150 pounds. We also caught two sharks some five feet long; bait, tidlers and mullet.

March 13—Clear; wind southeast; thermometer at 8 A. M., 60 deg. Went with P. and C. across the inlet; two rods; fished five hours; mullet and clam bait; got twelve sheepshead, averaging 4 lbs., and six bass weighing 23, 23, 6, 5, 5. These large bass gave three-quarters of an hour's play; lost three hooks from sharks.

March 21—Clear; wind southeast; thermometer at 8 A. M., 66 deg. Went with P. and C. to Inlet Creek; mullet bait; two rods; got two sheepshead and three bass. I hooked a very heavy fish, which took out all my line (70 yards) without a check, and then parted the line at the reel. Just then a heavy rain squall came up and we left.

March 24—Cloudy; wind southeast; thermometer at 8 A. M., 65 deg. To the inlet with P. and C.; fished four hours with mullet bait, and got twenty-one bass from 4 to 14 lbs. in weight, and hooked as many more, which escaped. Also, two large sheepshead, 6 lbs. each, and a 40 lb. sting ray.

April 5—Clear; wind northeast; thermometer at 8 A. M., 65 deg. Went with C. to Inlet and fished in the shoal, he with hand-line, I with rod. Got ten bass, averaging 5 lbs., and I lost a heavy one, which took out a hundred yards of line, and then parted the line at the hook. Also, one trout, 4 lbs.; twenty blackfish and fifteen whiting—these average about 7 lb. each. We also hooked three sharks, which took our hooks away.

April 12—Cloudy; calm; thermometer at 8 A. M., 64 deg. Went with P. in a boat to Inlet; mullet bait; got four bass; when rain came on, we left.

April 22—Clear; wind southeast; thermometer at 8 A. M., 64 deg. Went with P. to Inlet, then to the creek, where we got fifteen snappers from 1 to 5 lbs.; four pigfish, and a ray of about 20 lbs. P. took a bass of 11 lbs., and I hooked a sawfish, which, after half-an-hour's fight, took hook and sinker.

April 27—Clear; wind south; thermometer at 8 A. M., 66 deg. Went with boy to west shore; returned at 4 P. M. with seven bass, weighing 36, 25, 11, 6, 6, 5, 4. The big bass fought three-quarters of an hour, and dragged the boat nearly across the river.

May 4—Cloudy; wind southeast; thermometer at 8 A. M., 63 deg. Went with P. to west shore of river. We got seven bass, two cavalli of 8 lbs. each, and four snappers. Lost three hooks by the sharks.

May 10—Clear; wind northeast; thermometer at 8 A. M., 60 deg. Went with boy to Inlet; got ten bass and a ladyfish of about 2 lb. Killed also a sting ray and twenty sea catfish, which are now very numerous and troublesome. They weigh 4 to 5 lbs., and give strong play on a rod.

May 14—Went with P. to west shore; brought home four bass, one ladyfish, one cavalli, two groupers, and one blue fish of 6 lbs., the largest I have seen here; also, many catfish. Clear to-day; wind southeast; thermometer at 8 A. M., 70 deg.

May 24—Clear; wind northeast; thermometer at 8 A. M., 74 deg. Went to the beach and fished in the surf for bass with the boy, who took his hand line. We got eleven, one of 22 lbs.

May 26—Cloudy, with showers; wind west; thermometer at 8 A. M., 72 deg. Went with P. to Inlet for bass. We got fourteen, average 5 lbs., and three sawfish, each about five feet long, and many catfish.

S. C. C.

—The Country, a weekly journal, devoted to The Kennel, Shooting, Fishing, Fox Hunting, Archery, and other outdoor sports. Has also departments treating of Natural History, The Garden and Poultry, Pigeons and Pets. Edited by Wm. M. Thelston, late associate editor of FOREST AND STREAM. Subscription price, \$3 per year. Specimen copies free. Address, "The Country Publishing Association, 33 Murray street, New York.—[Eds.]

—Capt. Geo. W. Wilson, a Meriden sportsman, gives as his opinion, founded on observation and study, that the use of Paris green for the destruction of potato bugs is proving death to the quail, as quite a number of birds have been found dead with crops full of the bugs; examination showing that they retained enough of the mineral used for extermination to act on a higher grade of life.

## Game Bag and Gun.

GAME NOW IN SEASON.

Moose, *Alces macchis.* Pinnated grouse or prairie chicken  
Caribou, *Tarandus rangifer.* *C. capilla.*  
Elk or wapiti, *Cervus canadensis.* Ruffed grouse or pheasant, *Bonasa umbellus.*  
Red or Virginia deer, *Carcacus virginianus.* Quail or partridge, *Ortyx virginianus.*  
Squirrels, red, black and gray. Woodcock, *Philohela minor.*  
Hares, brown and gray.  
Wild turkey, *Meleagris gallopavo.*

"Bay birds" generally, including various species of plover, sand piper, snipe, curlew, oyster catcher, surf birds, phalarope, avocets etc., coming under the group *Limacola*, or Shore Birds.

In New York State December is a close season for deer. Deer shooting is permitted only during the months of September, October and November. Sale of venison is permitted until January 1st, and not after.

CONNECTICUT—Newtown, Dec. 18.—At Newtown, Conn., on Dec. 8, Curt Bostwick alone, with two dogs, killed three foxes. The dogs brought him one about 11 A. M., which he shot, and about two hours afterward they got on another track, and he saw two foxes heading for him about four rods apart. He let the hind one get near enough, when he shot him and then shot the other. He is now considered the champion fox hunter of Fairfield Co., Conn. Birds are very scarce, and it hardly pays to go out except for the tramp.

H. D. P.

RHODE ISLAND—Newport, Dec. 11.—Black ducks, shell-drakes, old squaws and other sea fowl are abundant further up the bay.

QUANTUM.

NEW YORK—Bloomingburg, Dec. 16.—Four days' shooting for two parties resulted in a bag of thirty-three partridges and eleven quails.

PENNSYLVANIA—Sharon, Dec. 8.—Grouse shooting is good this season, and is somewhat better than usual. Quail very scarce in this part of the State, but across the line in Ohio they are more plentiful, owing to the protection they have had for some time there. We have had a good show of woodcock this fall; better than usual.

ELMER.

Greenville, Dec. 8.—The following have been elected honorary members of the Greenville Sportsmen's Club: Hon. A. McDermott, P. J.; Charles Hallock, A. D. Gillespie, Esq., C. B. Evans, Esq., J. T. Blair, Supt. S. & A. R. R.

HARGEN.

Warrenton, Dec. 16.—Mr. Charles H. Scott, of Philadelphia, with Mr. J. M. Maddox and a friend, killed 135 quail, nine hares and some ruffed grouse in a two days' hunt on the Rappahannock, near this place. Wild turkey unusually plenty in this vicinity. The Warren Green Hotel is thronged with sportsmen who are bound to profit by the season and abundance of game.

N. B.

Leesburg, Dec. 18.—Capt. Fauntleroy and Powell Harrison, the president of our game protective association, have killed, this season, thirty-three or thirty-four pheasants (grouse) within two hours' walk of town—fifteen or sixteen quail per gun is the usual kill in that line about here.

T. W.

Mount Holly Springs, Cumb. Co., Nov. 23.—If any of your readers should devote a couple of days to our valley he would enjoy some of the best shooting he ever saw. Two of us killed in one day sixty partridges, ten rabbits and three pheasants, "and it wasn't a good day either." Deer are plenty on South and turkey on North Mountain. A party of two brought in eight turkeys the other day, which they secured without much difficulty.

G. K. M.

VIRGINIA—Fort Defiance, Dec. 15.—Mr. Waters has spent a few days with us, and I think found not a little sport in the way of footing it over the Shenandoah Mountains. We found any quantity of wild turkeys and some deer, but as our time was short at the hunting ground, we did not bag a great quantity—say, five turkeys and two deer. Messrs. Wanmaker and Demerest have had their share of sport in the way of quail shooting here, as well as turkey shooting in the mountains. Both gent's are good shots as well as first-rate companions on a hunt, and good company in the evening. Mr. Wanmaker leaves here in a few days.

M. A. W.

Currituck, Dec. 15.—The shooting at Currituck has been very poor during the present season. An unusual prevalence of southerly and southwest winds has so raised the water that ducks have been stunted in their food, and most of the shooting has been done from boats. While there myself, there was no dry ground enough to build a blind on any one of the marshy islands. I did not even see a canvas-back.

THE OLD DOCTOR.

Norfolk, Dec. 10.—Weather cool and braeing. Ducks and swans coming in pretty well.

W. H. S.

Magnolia Springs, Dec. 10.—Excellent sport here this fall.

—Our correspondent, Alexander Hunter, now of the Virginia House of Representatives, has gone to the Dismal Swamp to shoot ducks with his Winchester and Sharps rifles.

SOUTH CAROLINA—Charleston, Dec. 15.—Owing to the warm change in the weather this week very little sport has been had. A few deer and turkey have been brought in, but very few in comparison to last week. Great preparations are being made for the Christmas holidays, and several large parties will go out after deer.

MISSISSIPPI—Natchez, Dec. 11.—A few days ago four members of the Gaillard Sporting Club made a reconnaissance into the swamp toward Gaillard's Lake lying between Natchez and Woodville. They returned after a pleasant trip with 2 fine bucks, a wild turkey, 60 or 70 ducks, squirrels, rabbits, partridges and snipe. The swamps are at present full of r in water, consequently not much game could be taken nor the lake reached, but the greatest abundance and variety of game was seen. Wild turkey hunting in the spring promises to be fine. Wild ducks in any quantities are feeding in the swamps at present. Hydrophobia exists to almost an alarming extent here. Recently a member of the club was obliged to be taken to a fine pointers, they having been bitten by a rabid dog. At a match at glass balls on Dec. 1st between several members of the "G. S. C." Mr. John F. Jenkins was the winner of a fine Boston shooting suit, awarded by the club. W. D. J.

TEXAS, Galveston, Dec. 6.—Wild fowls are now killed around the bay in great numbers. I brought seven large and small ducks in the market this morning for 75 cents.

C. C. PETTIT.

ILLINOIS—Lacon, Dec. 10.—I am on the Illinois River, thirty miles above Peoria. We had good duck shooting this fall. Snipe poor, quail and rabbits plenty, geese unusually scarce.

D. B. W.

IOWA—La Porte, Dec. 11.—The season just past has been an unusually poor one. Prairie chickens hitherto plenty are now scarce. Of ducks we make bags of from eleven to eighteen. At one shot, recently, I brought to bag twelve blue and green-winged teal.

Masson City, Dec. 11.—While hunting in Minnesota this fall I had the good luck to shoot the largest buck that I ever saw. He weighed 250 pounds, had a very large pair of antlers; length of horn from head to point, 20½ inches.

T.

CALIFORNIA—Sacramento, Dec. 14.—During the past week or two rumors have been floating around among hunters to the effect that the Sacramento River above the city was full of ducks. A number of experts started out at different times to make raids upon the broadbills, but almost invariably reported that they gave the river a wide berth. Nevertheless, other parties continued to assert that the river was "just alive with them." The key to the mystery was solved yesterday by a gentlemen who drove up the river almost to Knight's Landing. Until he was about seventeen miles above the city he scarcely saw a duck; from that point up, as far as he went, the river was full of canvas-backs and other fowl, presenting a sight which amateur shooters rarely see. They were nearly all on the Sacramento side of the stream, being shy of the Yolo shore, up which the road runs.

—Mr. Ira Paine appeared this week at the Olympic Theatre, Brooklyn, in his original act of glass-ball shooting. Mr. Paine's engagements are most numerous, as he will appear in Philadelphia, Baltimore, Chicago and St. Louis. This leading shot has received a very flattering invitation from Mr. Stephen Grant, the celebrated London gunmaker, to take charge of his ease of guns at the coming Industrial Exhibition in Paris. This week Mr. Paine will also exhibit his skill at the London. This shooting act will break twelve glass balls in a minute with a Colt's navy revolver.

OHIO FARMERS AND SPORTSMEN.—The antagonism between the property owners and the gunners of Monroe and Leosourville, Butler county, Ohio, has taken shape in the formation of clubs among the landholders, for mutual support in prosecuting trespassers.

—Col. H. B. Shattue, the Gen'l Ticket Agent of the Atlantic and Great Western R. R., is one of the finest amateur shots in America. His "heart's delight" is quail shooting, and he has had his full in Central Ohio during the present month, where birds are remarkably numerous.

THE IRA PAINE FEATHER-FILLED GLASS BALL.—The Paine ball is a uniform glass ball of about two and a half inches through, weight 2½ oz. Every ball is made to a scale, and weighed. Mr. Paine has the sole patent for the feather-filled ball. The effect of filling the ball is quite pleasing to view, as when the ball is shattered the feathers fly, simulating the plumage of a shot bird. It should be remembered that Mr. Bergh favors trap-shooting with balls. As a pleasant amusement we know of nothing more agreeable than practice with these balls.—[See advertisement.]

DISPARITY IN SEX OF GROUSE KILLED.—In response to our note on this subject last week, Mr. J. W. Kittedge, of Ayre, Mass., writes that in his experience of birds killed before Nov. 25, nine out of ten were cocks. After that date the majority killed were hens. This, our correspondent suggests, would indicate a desirable change in the close season, making it begin December 1st instead of January 1st.

### SHOTS AT RUNNING DEER.

MEMONONIE, Wisconsin, Dec. 8, 1877.

EDITOR FOREST AND STREAM:

I was much pleased with the letters of your correspondent, J. S. Van Dyke, on "Shooting Running Deer with the Rifle." I now write to ask that more deer hunters of ripe experience will, in a like unselfish manner with Mr. Van Dyke, give their views, practice and experience through your columns. Very few hunters will agree with him on the distance which he claims the aim should be ahead of the running deer when the trigger is pulled. Some of our oldest hunters say the best way is to follow the motion of the deer with the rifle, and when the aim is good and low on the shoulder, fire, and more particularly just as the deer alights from his bound, or is commencing to rise for the next leap.

I think the lateral motion of the gun is communicated to the bullet, which gives it advance enough. Besides, at that instant of time, when the deer reaches the ground, he is practically, if not almost absolutely, in a state of rest, and fortunate is he who, by natural gift or long practice, can at that moment combine the quickness and coolness of aim with the instantaneous obedience of the trigger finger, which shall insure success.

Others affirm that the best way is to carry the aim ahead of the deer, in line of his flight, and "when he jumps into the sights, pull." The "shot-gun aim," alluded to by your correspondent will do only when in thick brush and but one bound of the deer is seen, perhaps his white stern toward you, and, "like a snowflake in the river—a moment white then gone . . ." Yes, tell me whither? A snap-shot, then, in the shot-gun style is admissible, and the only hope for venison.

Yours truly,

DEER HUNTER.

### DECOYING DUCKS.

EDITOR FOREST AND STREAM AND ROD AND GUN:

Sir—Reading an article in your paper of the 29th ult. in relation to a cat decoying ducks, and asking if any of your readers could give further information of a like nature, I thought I would send you the following: I have used a cat to decoy ducks ever since I have used a gun, which is forty years or more, but as the variety in my seasons is so varied I have not tried this experiment on my lands. A small brown dog I think the best, trained to run back and forth along the edge of the shore, in

front of a blind, and the following kinds of ducks are easily decoyed with shooting distance, black and gray ducks in the spring and fall (I have not been successful with these at other seasons), red heads, blue bills and sheldrakes at all times. When I did not have a suitable dog I have used a bright colored handkerchief, or piece of red flannel tied to a stick and shaken close to the edge of the shore as far as I could reach from the blind. Only a few days since I decoyed five red heads from a flock two hundred yards from the shore in less than twenty minutes and shot three of them. When decoyed in this way or with a dog they do not appear at all timid.

I recollect when a boy one evening, while waiting for ducks at the mouth of a creek, I saw a mink on the other side about forty feet distant, circling around very rapidly and at every turn he would go close to the water's edge. Soon two black ducks from just below swam up near the shore with heads erect and followed the mink in his rapid movements about five or six feet distant from the edge of the shore, and as the mink worked closer the ducks would move off a little, always keeping about the same distance from him, but showed no disposition to fly, nor seemed at all frightened.

I watched them for some time, greatly amused and fully satisfied the mink was doing this to decoy the ducks within reach; whether he would have succeeded finally I do not know, for, boy like, I shot the ducks and frightened the mink away. A. S.

ANSWERS TO OUR PUZZLE.

Mathematics being one of the highest functions of the human intellect, and a love of the sports of land and water being one of the nobler elements in man's nature, ergo the presence of innumerable mathematical sportsmen among our readers does not surprise us. The question about the black-birds, squirrels and woodcocks has been answered correctly from all parts of the country, and we expect replies to keep coming in for some indefinite period yet to come. The next problem of this character we shall propose we intend to make a staggerer, and only capable of solution by some one who would consider the mastery of Laplace's *Mechanique Celeste* as child's play.

Among a great many amusing answers we reproduce one from a lad of sixteen. There is a certain naivete and charming simplicity about this letter which is worth reproducing. In fact, the best style of letter writing is to write naturally:

**EDITOR FOREST AND STREAM:**  
 "Whenever father can spare ten cents he buys the FOREST AND STREAM. He says it is the next best thing to hunting by ourselves. You must know, Mr. Editor, that father and I are both sportsmen. Father is a real sportsman, too. We never would kill a bird or fish out of season, nor allow others to do it if he could stop it. We come from Pennsylvania from a hunting country, but we cannot go hunting here as father is only a poor working man, so we are glad to get the FOREST AND STREAM. When father got this week's paper I saw the sportsman's puzzle, and he told me to make it out and send it to you. So I tried and I make out that he kills forty-eight blackbirds, forty-seven squirrels and five woodcocks. Am I correct? Now, Mr. Editor, I am sixteen years old, but I could tell you some curious things about pheasants and mountain hares and foxes and coons and deer, and about Neil, our pointer, and Colonel, the setter. Father had to leave them all behind; he could not afford to bring them. I wish I were back again. And our little black and tan that father broke to stand on a pheasant as staunch as a pointer. But enough for the present. Long life to the FOREST AND STREAM is the wish of a  
 YOUNG SPORTSMAN."

FUN AT HOMOSASSA.—Homosassa, Florida, of which so much has been written, is not a own, properly speaking. It is strictly collection of houses, comprising a mansion and out-buildings which belonged, before the war, to U. S. Senator Yulee. It is located on a lofty shell mound, directly on the banks of the Homosassa River, three miles from the Gulf of Mexico, and is surrounded by fruit trees of large growth and many varieties. With the exception of the vegetable garden and the old and now abandoned sugar and cotton fields, all is a wilderness around about, which abounds in game of many kinds, as there is no one except the guests of the house to disturb them. There are deer, bears and cats in the woods, quail around the old fields, and ducks, snipe and alligators in the creeks adjacent. In the neighboring waters no less than eleven kinds of fish rise to the fly in February, and angling becomes monotonous from the abundance of the sport. Mr. Jones, the proprietor, has sent us the following letter, referring to affairs around his domain. The statements regarding the fidelity and affection of the buck for the wounded doe are very interesting:

**HOMOSSASSA, FLA., Dec. 1, 1877.**  
 Our boarders have been doing a fair business in the way of shooting and fishing. Eight deer have been killed on the island called "Hengen," just opposite the house, since Nov. 1, and ten or eleven wounded that got away; and about every time one goes over there, one or more deer are seen. Yesterday, one gentleman, said, "Mrs. Jones, shall I bring an old or a young deer?" She says, "A young one," as we had four venison and a bear then hanging in the air, and the venison were quite large. So he went over, half an hour before dinner, and in fifteen minutes we heard his gun. Mrs. J. said, "Meat in the pot" (a saying for luck), and in a short time, luck had come with a fine young doe.

Granville, a man working for us, went over one evening just before sundown, to see if he could get a shot. He had not gone far before he saw a doe feeding, and, creeping up, shot her down. He only took two cartridges with him, and putting the second one in his gun, went up to the fallen doe; but before he had reached her, a buck sprang out from the bush, and blowing, and stamping the ground, stood still, looking at the man. He raised his gun and fired (it was a shot-gun). The deer did not stir for an instant, and then made a rush for Granville, who took "leg bail" for his boat, about 250 yards away, the buck close to him; in fact, he was compelled to dodge around the trees on the way to the boat to escape the fury of the wounded deer. On reaching the boat, he jumped in, and giving it a shove off the shell beach with the oar, was afloat—the buck standing in the water looking at him. Granville pulled for the house, some four or five hundred yards, after more cartridges, but so out of breath that he could not do much for some minutes but float with the tide, with an occasional stroke of the oar. On getting more cartridges, he returned for his killed deer, and to have one more brush with his pursuer. He found him pawing around the killed doe, and advancing toward him near enough to get a shot, brought him down as he was about to make another charge. The buck had dug a deep circle around the fallen doe, and seemed to be wild with fury.

A few evenings ago one gentleman and this same man, Granville, went out with the fire arm after supper, over to the same field, and within hearing of the voice in ordinary conversation. They had not been gone over twenty minutes before there was a shot, and Mrs. Jones saying, "I wonder if they have killed one," and "Meat in the pot." "Fifteenth Amendment Dick" rushed to the fire-place, and blacking his finger with smut from the chimney brick, and rubbed it on her forehead for luck (a superstition the blacks have), saying, "You must leave it there until the hunter returns, and he will have game." We had not done laughing at the spot of Dick's on Mrs. Jones' forehead, before another shot was heard; and, in a few minutes, a call was heard, and on asking what was wanted, a voice hailed, "Bring me a knife!" We took the knife, and found the hunters had left their knife on the dock as they left for the hunt, and wanted the knife to bleed the game. One deer was killed, and a second badly wounded, which they failed to get.

Fish are not rising to the fly very readily yet, though they are beginning to strike. The last of this month is about the first of the season for the fly. All kinds of fish take out bait splendidly. Mr. Frank Heywood took 160 pounds of sheephead, day before yesterday, in less than four hours fishing. There were thirty-four fish which averaged nearly five pounds each. Messrs. Heywood and Giles take bass running from nine to seventeen pounds. They took three in a few minutes which weighed forty-seven pounds! Mr. Heywood's sheephead were taken with rod and reel. He said he could have done better with a hand line, as a good deal of time was spent in playing; but it was fun he wanted, and not ponds.

It never was more healthy on our coast than at present. We had had frost here, and the weather quite cool.

We are looking for our mutual friend, "Al Fresco," to drop in on us on his return from his trip to the northern portion of our coast. We want to give him a little sheephead fishing, and a good square meal of the same. His friend and partner in his cruise ("Frank," of "Camp Life in Florida") is here, and desirous to meet his old friend.

The boat which I shipped had not arrived at the Keys two weeks ago, but hope she may be there to-morrow when I go over. She is thirty-three feet long, twelve feet four inches beam, and draws twenty-two inches of water.

Frank Heywood, of whom I speak in this letter, is the young man who went with Dr. K. in the "Spray" on his cruise, and is a very nice fellow. Yours, most truly,  
 ALFRED P. JONES.

For Forest and Stream and Rod and Gun.

CALIFORNIA QUAIL SHOOTING.

THE quail shooting of the Pacific slope is very different from that of the East. While I often regret that my friend, "Bob White," is not to be found here, I find much consolation in the fact that his lithe, gayly-plumed cousin is about the best substitute he could have. He is a pert, saucy little chap, game to the back-bone, and entirely unlike any Eastern bird in his manners.

Instead of shivering over the well-gleaned preserves of the East, with numb fingers, for the last poor, straggling gale of the season, or tearing and swearing your way through the "saw grass" and jungles of the South, imagine yourself with me in a part of the South almost as unknown to the great body of readers as Guinea or Madagascar—San Diego County.

Starting from the rancho house of J. O. Miner (which, by the way, as a commodious, comfortable and convenient headquarters for sportsmen and pleasure seekers, cannot be beaten on either coast), in a few minutes we reach our ground, a range of low hills covered with thin brush about waist high and intersected in all directions with little ravines.

But hark! Do you hear already that call, some 300 yards away? There are three notes, in tone between that of the turtle-dove and Bob White, and accented strongly on the second syllable, sounding much like *to-be-coo*. It is followed by another with the accent thrown on the third syllable, like *to-be-coo-coo*. Each is repeated three or four times.

Tying our horses, we soon walk in sight of them, but before we get within seventy-five yards, they are already running and dodging about through the brush like little dark-blue streaks. Quickening our pace, they fly before we get within thirty yards of them, and surprise you by their great number, there being fully 300 of them.

They are out of shot, but we shoot at them, nevertheless. They fly only 150 yards and alight tolerably close together. We follow them up, and again they rise wild, but closer than before. But now you will notice that they break and scatter more as we fire into them, and alight all over a circle of 150 yards diameter.

Now, as we go among them, they begin to rise singly, by twos, threes, and sometimes by the half dozen, but at distances varying from twenty to even three yards, the majority rising at about six to eight yards. And now begins the liveliest kind of work. We don't have to wait an instant for a shot. At almost every step birds are rising. Up hill, down hill, straight away, crossing, quartering and twisting—they are in all directions. Keep cool, let go all that rise over fifteen yards, don't shoot at any over thirty yards, mark your dead birds as closely as possible and pick them up as quickly as you can.

After about twenty minutes our rapid cannonade begins to slacken. They are getting more widely scattered, and scarcer. We won't bother with them, for it is cheaper to find another flock, as they are very plenty. This was a open shooting, and, as you like as variety, we will try a different kind of ground now.

A short ride takes us to a broad canyon filled with sycamore, prickly pear and various kinds of brush, six or eight feet high, with plenty of open space in all directions. We ride but a few rods in it when, suddenly, we hear a sharp, metallic "whit-whit-whit" some fifty yards ahead of us in the brush—another flock taking their siesta.

We dismount, and before we have taken twenty steps toward them, the air seems alive with them. By following and shooting at them as before, two or three times, we get them well scattered. All we now do is to go to walk to and fro through the open spaces and load and shoot, taking care not to drop birds in the clumps of prickly pear, where neither man nor beast could get them. As before, we scarcely have to wait a moment for a shot. Every bush seems to have from one to half a dozen in it. Away go some twisting around small tree tops or scrubby bushes, with a spiteful, defiant buzz. Away go some whizzing up from under your feet with a saucy "chirp, chirp, chirp." They seem to say "look out, or you'll strain your gun." Away go some scrambling out of thicket prickly pear almost in your face, with an audacity that amazes you, and vanish over your head before you can turn around. Away send others like hares, for a few yards along the ground, then suddenly burst on the wing. Away go others out of trees, whizzing with a downward curving rush like that of the ruffed grouse, and most always, leaving your shot just a little behind or above them.

Down they come though, in spite of their smartness; but they die game to the last. Some kick, bounce, strangle and flutter fifteen or twenty paces along the ground as if determined not to yield. Some spin away in straight lines leaving you gazing in wonder at the cloud of feathers floating behind, and alight 200 yards or more away, with a plunge and a bounce, stone dead, or whirl headlong out of the air without trying to alight. Others tower swiftly upward, with their beautiful plumes in sharp relief against the clear sky, and seem to take especial care to select a nice clump of prickly pear to drop into when life leaves them in mid-air. Some with their last breath will run into it, sit coolly

down just beyond your reach, and while their little crested head droops in death, cast an eye at you which, almost as plainly as words, says "No you don't, oldSmarty." Still, by picking our shots, we soon bag all we want, and get home in time for a good dinner and a smoke on Miner's commodious porch, while our Eastern friends are hugging the fire.

This is the only way these birds can be hunted here: break and scatter the flock and get them well scared by shooting at them. They will then lie quite well, though few of them close enough for a dog. A dog, even the best, is perfectly useless here except a retriever, and if not valued the dog, even then you had better leave him home. This is the principal drawback to the sport, but the pleasure of seeing the dogs work is well compensated for by the immense quantities of the birds, the ease of finding them, the absence of mud, swamps, or heavy thickets to flounder through, the ease with which even a buggy may be driven most anywhere, the length of the season (which lasts from September to March), the best of the shooting coming at a time when the East is locked in snow and ice, and the astonishing amount of clear, dry and mild weather during all that time—the rainy season at this end of the Pacific rain-belt being drier than the driest of Eastern summers. For sportsmen who, like myself, are so unfortunate as to have to hunt climate for a living, the world affords no better place than San Diego Co., as, with all the advantages of civilization, it combines the greatest amount of fine weather one could wish, with great variety and abundance of game and the easiest ground to hunt on that I ever saw.

It is said that further north these quail lie better to a dog; but I don't believe they lie well anywhere. Their nature inclines toward running, and they understand it too. But a dog is not necessary here at all.

Much has been said about their being harder to shoot than the Eastern quail. The fact is simply this: they are no harder to hit, but being very tenacious of life, rising wilder, and generally unexpected, and while you are in motion, it is more difficult to bag the same number out of the same number of shots, unless you pick your shots. The constant buzz and whizz on all sides is terribly demoralizing to a poor or even ordinary shot, and I have seen them so bothered that they did not know what to shoot at. But a good, experienced Eastern shot will do as well as any Californian after he learns to stop shooting at wild rising birds as he does at home, and confines himself, as we do, to the close rising ones, of which there are always plenty in the fall.

These quail breed in becks of ten to fifteen, but pack like pinated grouse into immense flocks, when they are as easily found without a dog as with one; though this may be different further north where the ground is well covered. They are inferior in flavor and size to Bob White, but are still good enough for any one.

Whether they could stand Eastern winters or not is a hard question to answer; but I should think they could endure them better than Bob White. Where there is no prickly pear they roost in trees, so that they will not get snowed under. From the way they can clean out a vineyard I should say that they would eat buds in winter like grouse. They also know how to give the pot-butter the slip much better than poor Bob White, who always huddles up just right for the villain. Judging by the way they stand shot I should say they can stand most anything. I have found them plenty in the mountains where the snow lies sometimes two feet deep in winter. But even if they were not to be found there in winter it would prove nothing, as the deer all start for lower ground when the snow comes.

There is a beautiful mountain quail here, much larger than these described, that endures the winters of the high Sierras, and would certainly live East. All that I have hunted were, however, still more inclined to run than the others. But their habits might change in this respect, like the Eastern quail which lies better the further East he is found. Both of these birds seem to live well in a cage, and are not afraid of civilization. California can furnish plenty of them, and I should think it would be well to make a thorough experiment of their introduction East. Nothing here seems to hurt them but a severe drought, which stops their breeding for the next season; but no Eastern drought could affect them. I understand that the smaller variety has been tried in Germany with success.  
 T. S. VAN DYKE.

PIGEON MATCHES.

**NEW YORK—Dexter's Park, Jamaica Road, L. I., Dec. 14.—**Pigeon shooting; the Long Island Gun Club's members contesting in sweepstake shooting. For the first sweepstakes there entered six at \$2 each, making a total of \$12; divided, \$7 to first and \$5 to second; shot for at three birds each, 25 yards rise, 80 yards boundary, 1/4 oz. shot, H and T traps. The two best marksmen to take the money. The club rules to govern.

Gildersleeve	.....1	1-3	Hughes	.....1	0 1-2
Broadway	.....1	1-3	Woods	.....1	1 0-2
Smith	.....1	1-3	Woods	.....1	0 0-1

† Divided the money.

**Same Day—Sweepstakes; \$2 entry; had eight competitors, making \$16 divided—\$9 to first, \$5 to second and \$2 to the third; three birds each, the three best shooters to take the money. The other conditions as above.**

Hughes	.....1	1-3	Smith	.....1	0 1-2
Gildersleeve	.....1	1-3	Judge	.....1	0 1-2
Broadway	.....1	1-2	Murphy	.....1	0 0-1
Ward	.....1	0-2	Woods	.....1	0 0-0

† Divided first and second money. † Divided third money.

**Same Day—Sweepstakes, \$22; there were eleven entries, 3 birds each; \$10 to first, \$7 to second and \$5 to the third shooter, the three best men to take the money.**

Fleming	.....1	1-3	Gildersleeve	.....1	0 1-2
Smith	.....1	1-3	Ward	.....1	0 1-2
Broadway	.....1	1-3	Woods	.....1	0 1-2
W. Schwartz	.....1	1-2	Murphy	.....1	0 1-1
Judge	.....1	0 1-2	Hughes	.....1	0 1-1
Burrongs	.....1	1 1-2		.....	

† Divided the money.

Referee, C. Dexter. Time of shooting, two hours and forty-five minutes.

**MICHIGAN—Detroit, Dec. 15.—Hurlingham Park, Dec. 12;** State medal shot; English rules, 30 yards rise, 11 birds each:

J E Long	.....1	1 1 0 1 1 1 1 1-10
Cook Cousins	.....1	1 1 0 1 0 1 1 1-10
J V D Eldridge	.....1	1 1 1 1 0 1 0 w
Goff Stenton	.....1	0 1 1 1 1 1 w
W Schwartz	.....1	0 w
B H Gillman	.....1	1 0 1 1 1 w

Tie on ten-five birds.  
 J E Long.....1 1 1 1-5 Cook Cousins.....1 1 1 1-5  
 Cousins won.

Sweep; English rules, 30 yards rise, miss and go out:  
 B H Gillman.....1 1 1 1 1-6 Goff Stenton.....0 w  
 J V D Eldridge.....1 1 1 1 0-5 Murphy.....0 w  
 Cook Cousins.....1 0 w

Second sweep, same as above:  
 J E Long.....1 1 1 1 0-4 Goff Stenton.....1 0 w  
 B H Gillman.....0 w J V D Eldridge.....0 w  
 Cook Cousins.....1 1 1 1 1-6  
 Cousins won.

Answers to Correspondents.

No Notice Taken of Anonymous Communications.

**A** number of anonymous correspondents will understand why their queries are not answered, when they read the lines at the head of this column.

**R. R., New York.**—Your conundrum is as old as the hills.

**L. G. F., Boston.**—Will you please send your address to this office?

**S. S. H., Elmira.**—Is there a paper shell made same size of the metal shell marked 12 A? Ans. No.

**F. A. P., Ft. Walla Walla.**—Do not think we neglected your question, it will take some time to get the pedigree accurately.

**G. A. P., Toledo.**—What is considered a good target at 40 yds., using 1 oz. No. 6 shot? Ans. 300 pellets. Your answer is correct.

**H., Boston.**—Please inform us through your next issue the size shot that Captain Bogardus uses in glass ball shooting? Ans. No. 3.

**C. E. C., Hanover, Me.**—How can I stain a bright iron rifle barrel to a black, or blue-black color? Ans. It is done by heat. We do not undertake the process.

**YMAESSEE.**—We cannot designate, except at great length, the flies used for various kinds of fish caught in Florida waters. For full instructions see Hallock's "Gazetteer."

**H., Brooklyn.**—Would you advise use of cantharides, or may the desired end be attained in another way? Ans. Association with the opposite sex the best and most natural means.

**DEALER.**—The sale of venison in this State is prohibited after Jan. 1. December is the close month for deer. Deer shooting is allowed only during the months of September, October and November.

**C. V. R. T., Vincenton.**—Please inform me what it will cost to have a double-barrel muzzle-loading gun changed into breech-loader? Ans. Depends very much who does the job and how it is done; from \$10 to \$25.

**S. J. L., Norristown.**—1. Can a person shoot as true over water as he can on land, providing he knows the distance? 2. Does water draw a bullet? Ans. 1. No possible difference. 2. An old woman's idea. It does not.

**C. W. H., Fort Plain.**—Will you please inform me through the columns of your paper, whether Capt. Bogardus has more than one arm? Ans. You have got names mixed; it is Ward, of Canada, who has but one arm.

**C. H. F., Fort Henry.**—At the early age of seven weeks it is difficult to say what may be the matter. Probably mal-nutrition, or some inherited constitutional trouble; or worms often cause symptoms similar to those you mention.

**Z. Z.**—Can you recommend the — gun advertised in your paper? The rifle—large calibre and slow twist—spoken of in the "Sportsman's Gazetteer," would it shoot explosive balls? Ans. We have never seen the gun. It would.

**W. C. H., Hagerstown.**—I have a setter bitch which will hunt splendid next afternoon, and then she is taken with pains in her limbs which make her howl. Ans. Probably has rheumatism. Keep the bowels open and give warm, dry bed and some sulphur once a week.

**J. G. A., New York.**—Can you inform me where I can have a net for a game bag made? Those which are in the game bags purchased at stores are almost worthless. Ans. Make it. Go to any cordage and twine store and you can get the information how to make the net.

**J. N. K., Ayer, Mass.**—Have a setter pup ten weeks old. His forelegs are badly crooked. Will they be likely to come out all right and straight? Ans. Dogs are sometimes rachitic when young, but almost always, unless positively deformed, the legs come straight in time.

**J. J. S.**—1. I own a pair of maltese cats which are covered with fleas and has the mange. 1 have used insect powder, but it did no good. 2. Are the — good gunneters? 3. When is the time up for shooting quail in Pennsylvania? Ans. 1. Wash with carbolic soap. 2. Yes. 3. Dec. 15.

**J. J. M., Boston.**—A Newfoundland dog, one and one-half years old, has sores on the inside of his ears. Ans. Fit a linen cap over the head so as to prevent the ears being shaken; and, then, once a day, wash the ears with tepid water, and afterward pour in a little weak lead water. Feed no meat for a month.

**F. J. W., West Meriden.**—1. Will a muzzle-loading gun shoot as well as a breech-loader, everything else being equal? 2. What makes my gun kick ducks on a cold morning better after firing a few times than at first shot? Ans. 1. It will. 2. The difference, if any, must be more with you than with the gun.

**SUBSCRIBER.** Matewan, N. J.—Where, near Washington City, can I find good shooting during the holidays? If any place for partridge or quail, how can it be reached most easily? Ans. Orange Co., Va., near the headwaters of the Pamunkey; also, near Manassas Junction, and at Tee Bee, Nottingham and Marlboro, in Maryland.

**NOVA SCOTIA YACHT SQUADRON.** Halifax, N. S.—1. What is your subscription per annum, postage free? 2. Can the year begin with any number? 3. And, above all, do you devote space to the discussion of yachting subjects? Ans. 1. \$1. 2. Yes. 3. A great deal. We are publishing a series of illustrated articles on marine architecture now.

**G. W. C.**—Have a bitch eleven years old with a difficulty in her breeding. Holds her head unnaturally; is restless. Malady seems to have been coming on for two months. What is the matter, and what shall I do? Ans. Probably has bronchitis. Keep her dry and comfortable; bowels open and good nutritious food. Age is against her.

**G. A. S., Westfield.**—1. Can I get a breech-loading gun of good quality for from \$50 to \$75? 2. How do — guns rank with English make? 3. Do you consider the — action as good as the top-snap? Ans. 1. Certainly. 2. An excellent gun. 3. Great diversity of opinion. We have no fault to find with the make you mention. Have one now in use for four years.

**NEW SUBSCRIBER.** Painsville.—Will you please answer through this week's paper what is the best American breech-loading shot-gun for the price, from \$40 to \$30? 2. What gauge, 10 or 12, for general shooting, is the best? Ans. 1. We would do an injustice to our many patrons were we to discriminate. From good makers it is hard to get bad guns. 2. No. 12, decidedly.

**H. L., Port Richmond.**—My gun barrel is three and three-fifths inches long, about six and one-quarter sixteenths at the nipples, then decreases to muzzle, etc. 2. What is a gauge? 3. Was not Courtney many years ago defeated by a Deamey? Ans. 1. Could not say unless we saw the gun. 2. Not so easy to answer. In old times, before the time of choke-bore, the muzzle was gauged by a certain standard. Now, choke-bore may take a 12 cartridge at the breech, and show a 14 gauge at the muzzle. This could not be called a 14-gauge gun. 3. Courtney was not defeated.

**T. P. W., Wolf Run.**—1. Have you the volume of F. and S. for 1875? 2. Is there a publication called "The American Checker Player"? 3. What breech-loader won in England? 4. Am having barrels made: how many pellets should I put into a 30 in. target at 25 yds., with No. 8 shot? Ans. 1. Yes. 2. Do not know of it. 3. Greener. 4. With 1 1/2 oz. shot something like 300.

**J. L. P., Yorkville.**—Would a 32 calibre rifle be as accurate as a target rifle at 300 yds.? 2. Would it hurt a long-range rifle to shoot without cleaning (charge 90 grs. powder, 1 lb lubricator and a 300 grs. ball) at short range for long-range purposes? 3. Could I use 70 to 80 grs. powder, etc.? Ans. 1. It would not be accurate. 2. Would not hurt it, but would make bad shooting. 3. Would not work well.

**TRAP.**—1. Will you please tell me if the Remington carbine is accurate at 200 yards? 2. What is the price of the same? 3. Would it be allowed in shooting matches under Creedmoor rules? 4. Where can the rules for target shooting be obtained? 5. What is the price of the same? Ans. 1. It is. 2. \$16. 3. It would be. 4. We have them; send ten cents in postage stamps and we will forward them.

**A. B. C., Boston.**—1. What kind of wad did the American team use in their cartridges? 2. Do they lubricate by passing an oiled rag through the barrel? 3. I have a Remington shell holding 97 grains, how shall I fill it with 100 grains? Ans. 1. Pasteboard wad. 2. With an oiled rag. 3. Have a tin funnel made with a long spout so as to get a good fall to the powder; load in this way and you will put in the three extra grains, by careful manipulation.

**W. J. R., New York.**—Do the straight shells for central fire rifles have any advantage over the bottle-necked shape in the way of less recoil? 2. For squirrel and coon shooting and other small game, will a 32 calibre rifle, rim fire ammunition, answer the purpose as well as a 38 calibre would? 3. Do you think the 32 ammunition would be reliable up to 30 rods? Ans. 1. We never found any appreciable difference. 2. \$2 is good; would prefer \$5. 3. Only moderately so.

**A. W. S., Norfolk.**—Has the genuine Gordon any white on his breast? Ans. Idstone says: "The tan (of the Gordon setter) should be raven black, with a bine or plain bloom on the bright lights. \* \* \* There is no objection to a white shirt frill, although the absence of all white is a good thing." Further, Idstone says, "The very best blood occasionally shows the color (white), and there can be little doubt that in the Gordon kennels it is often met with." See Hallock's "Sportsman's Gazetteer."

**SPLASHER.**—1. Please tell me what to do for a dog the soles of whose feet crack open, exposing the quick and keeping him constantly lame at this time of year? The trouble begins as soon as the ground freezes. He runs loose, has plenty of room, sleeps where he pleases and is fed on scraps from the table with the addition of some plain corn bread. 2. Whose invention, or patent, is the rebounding lead used on the — gun? Ans. 1. Wash the feet regularly with strong salt and water for a few weeks. 2. The inventor's name we do not know.

**C. W. F., Brooklyn.**—Could a side forward lever of a breech-loading Scott gun be changed to a top-lever—that is, back of the hammer. 2. I tried my gun, and found at 40 yds., target 23 in. diameter, it put in 101 pellets; at 60 yds., same size target, 53 pellets; do you consider it fair shooting, as I had a 7 lbs. gun, 3 drs. powder, 1-1/8 oz. No. 1 shot? 3. Down to what large shot would a 12 bore breech-loader, 7 lbs., shoot with advantage? Ans. 1. Believe that the change would be injudicious, and would not advise it. 2. Excellent target. 3. Could not answer. The experiment should be tried by you; guns have their idiosyncrasies.

**J. W. D., Ottawa.**—Will you kindly insert a receipt for tanning animal pelts: also, the way to cure bird skins for skinning? Ans. Put the pelts in a pickle of alum and saltpetre until they become like leather; then dress the flesh side, dry slowly, rub them with butter, and dry by troading them out in sawdust. Equal parts of salt, alum, Glanber salts and half a pint of saltpetre, make a good and cheap mixture. For bird skins: After careful skinning, powder with one part powdered saltpetre and six of alum. Carbolic acid in solution is good. Put pieces of tow or cotton steeped in the carbolic acid solution in vent and throat. See "Sportsman's Gazetteer" for full particulars.

**J. J. M., Montreal.**—1. Pray give me the names of secretaries of yacht clubs, over one boat of from nineteen to twenty-five feet keel. 2. What is your definition of the word professional as far as regards yachting? Ans. (We beg to state to our correspondent that his first letter never came to hand.) 1. Address F. de P. Foster, secretary yacht club, Wall St., New York. H. H. Mann, Wall St., New York. Address letters to secretaries of Atlantic, of Brooklyn, and Columbia yacht clubs of New York. 2. By professional is meant any person who has at any time during his life followed the water as a profession, or for means of subsistence, or in any way received pay for services rendered on any boat, steamboat, sailing vessel, etc.

**H. S. K., Burlington, Vt.**—A buys a horse for B, agreeing to pay \$500 for the same. B says to A, "When you pay me for that horse I want you to give me \$750 before a crowd for effect." A asked a friend of B's if he would see that he got back \$250 if he paid B \$750, saying that he would see that he got the amount back. A goes into the hotel and says to B before the crowd, "Guess that I will pay you for that horse now," and pulls out his money, and counts out seven one hundred, and one fifty dollar bill, and handed them to B saying, "There, I believe that makes us square;" after which B meets A and gives him back \$50, as agreed on. B then makes a bet with C that he (B) received \$750 for the horse. Who wins the bet, which was \$25 side? Ans. C wins the bet. B most assuredly did not receive \$750 for his horse, and played a disreputable and black-leg game in pretending that he did.

**LAREDO.**—Please inform me which is the best locality for agriculture and sheep raising—California, New Mexico, Arizona, or Texas? Ans. We cannot answer categorically, except as to Arizona, in respect to which we give the testimony of the *Citizen*, a paper published in that Territory, which says decidedly that "There is no opportunity for agricultural colonies to thrive here, because at this time no large body of unoccupied land with water can be obtained. The worst features of common colonists is the certain disappointment, because of the false basis and information upon which they are induced to come. It is safe for the Eastern press to discourage the formation of colonies for Arizona." As to California, it is liable to periods of drought and flood, both of which have destroyed sheep by tens of thousands. Over 100,000 sheep perished by starvation there last year. With guaranteed immunity from these contingencies we should recommend California. Texas and New Mexico offer many most desirable grazing and agricultural localities. The latter is nearest a market. Any one going into the business of sheep culture should start with a capital of \$5,000.

**NOTICE TO SPORTSMEN.**—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting. P. O. Box 1,294.—(Adv.) ABBEY & IMBRIE, 33 Maiden Lane.

New Publications.

**HALLOCK'S SPORTSMAN'S GAZETTEER ABROAD.**—As evidence of the appreciation in which this popular cyclopaedia is held abroad, we are pleased to state that it is now being reprinted at Paris and Leipzig in the French and German languages, by permission of the holders of the copyright. A like application has also been made by a prominent London publisher. From its first appearance it has received very favorable comment from the foreign press, as well as from residents of foreign countries. The following letter is from Prof. D. G. Elliott, F. R. S., F. L. S., etc., who is the author of many comprehensive and valued works on fauna, more especially in ornithology. At this moment he is engaged in a specific work on Hornbills:

5 RUE TILSETT, PARIS.

**MR. CHARLES HALLOCK:**  
My opinion of your work can be summed up in a very few words, viz. That it is altogether the most comprehensive and valuable publication of the kind ever brought out in America. I cannot see what any sportsman needs more, and if he don't find all the information upon the subjects of foot and field, and the things pertaining thereto, which he desires, he must be an unreasonable creature and a curious sportsman. I heartily congratulate you, and wish the book all the success it deserves, which, of course, will be very great.

**F. Von Guernors, late of Der Waldmann, now of Der Deutschen Jagdzeitung, Leipzig, Germany, writes:**  
It is a selection of all that the hunter and shooter wants to know and although I believe I know a good deal about hunting matters, and that which you call "woodcraft," I am very glad to confess that I found many things which were new to me. I intend to print a critical review of it in one of my next issues, and to illustrate it with your portrait and a brief biography. I am sure to provide you a good lot of pre-headers for your excellent book, which I would warmly recommend.

[From Chasse Illustrée, Paris.]

Perhaps one of the best known of our sportsmen, understood in its proper sense, and who writes most intelligently on hunting and fishing topics, is Mr. Charles Hallock, the editor of the *FOREST AND STREAM*, of New York. Mr. Hallock has just published a work called the "Sportsman's Gazetteer," which is worthy of being translated into all European languages. We are very anxious that this remarkable book should be interpreted by us into French. In its text may be found everything which relates to hunting and fishing in America, with the fullest details as to the habits of all the creatures, whether of the field or food, which man engages in capturing. In addition, the work furnishes the most complete instruction as to the methods of shooting and fishing, with details of an interesting character in regard to a life in the woods. Here, too, may be found a map, and a guide into the best sections of the United States where game is found. It should be remembered that Mr. Charles Hallock is no apprentice in either woodcraft or book-making, as he is the author of two standard publications, "The Fishing Tourist" and "Camp Life in Florida." The title Mr. Hallock has adopted for his work, "The Sportsman's Gazetteer," is no pompous sign; such as one sometimes sees over an empty shop. The writer is not one of those authors who manufacture books about travels, or of hunting incidents, from their inner consciousness, taking their inspirations from their study room. What Mr. Hallock writes about he has seen himself, and he tells his own experiences. He talks about what he knows, and does not care for other people's hearsays. In a single word, it is a living, positive book. Any one who wants information in regard to game in the United States will find all he requires in the "Sportsman's Gazetteer." In the eight hundred pages which make up the complement of the book, there is not a single leaf which does not impart some useful lesson. Something more, in addition to the facts imparted in this excellent work, there is this, that the author possesses a certain elegance and vigor of style which makes the "Sportsman's Gazetteer" most pleasant and instructive reading.

[From Land and Water, London.]

A few pages of introduction in backward taxidermy, and a bibliographic list for sportsmen, bring us to the latter division of the "Gazetteer," which termination, like a postscript to a lady's letter, is perhaps the most important part of the work. This part is entitled "Sportsman's Directory to the Principal Resorts for Game and Fish in North America." Each State of the Union is dealt with separately. A sketch of physical features being given in general terms, and its character as a game bearing region stated. Each county of the State is then dealt with in detail. The varieties of game and fish found in its forests and plains, rivers and lakes; the best routes for travelling to them, the kind of accommodation attainable, and indeed almost any kind of information the sportsman can require. The whole is supplemented by some excellent maps, which enable the intending sportsman—*voyageur*—to ascertain at a glance the exact position of the district he proposes visiting, and quickly aids him in determining the distance from them to other grounds which he may desire to visit, etc. On the whole, Mr. Hallock's book contains a vast amount of useful information, useful of course to the sporting fraternity of his own country in particular, and to those speaking the English language going to the States on sporting expeditions, and we think the author has not overvalued his work in expressing his willingness to allow it to stand on its own merits alone.

[From the London Field.]

Mr. Hallock, the author of "The Fishing Tourist" and the editor of *FOREST AND STREAM* (the *New York Field*), has given us a book that was very much wanted, not only in New York, but here. A more complete and comprehensive work than the "Sportsman's Gazetteer" probably has never been produced by any sportsman. It does not matter what you want to know in reference to American sport—whether it be a recipe to kill mosquitoes, or how to get hold of a salmon river, or where to get the finest caribou and moose hunting. From the lowest to the highest, every interest in sport is here represented, weighed and filtered in the most convenient parcels. \* \* \* Mr. Hallock has displayed very great energy, patience and perseverance in all collecting so vast a mass of valuable sporting information. His book, indeed, is half a dozen books in one—sporting, "national, historical," "medical," "topographical," "practical," and let us hope beyond all, as a wind up, and as it deserves to be to the author, that the work will be "prontable."

**AN EXILE FROM POLAND.**—By Ringgold McCoy: Rogers & Sherwood, New York, printers.  
This is an Epile of far more than average merit, whose scenes are laid partly in the American wilderness and partly in baronial halls of Poland. In the course of the narrative, which is splendidly diversified with music, flowers, forests, love, jealousy, clash of arms and tragic incidents, to give it piquancy and zest, the causes that led to the hero's exile from Poland to America fully appear. The interest of the story is fully sustained throughout, and the denouement follows with dramatic effect. Mr. McCoy is a painstaking writer, who has the natural gift of poetry, and we venture to say that his very few efforts which he has made hitherto are more worthy a place of honor than a majority of so-called poems which have been lauded beyond their merits. The volume comprises 150 pages of tinted paper, and will make a very pretty holiday token and companion for the parlor table.



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INFLUENCE OF MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.

[Post Office Box 2332.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\*\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, DECEMBER 20, 1877.

To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts. Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for delinquency of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

A MERRY CHRISTMAS.

Although Christmas is not here yet, for we pen these lines some five days in anticipation of the event, we are certain our many friends and readers will accept our congratulations on the coming festivities.

Christmas presents itself this year almost in the guise of spring, with summer skies and balmy breezes, and has forgotten snow flurries and chilliness. Let us bless the holiday as it comes, not grumble because ducks are scarce and sportsmen have not had their full innings so far. If the sportsmen are disappointed the ducks rejoice. Let, then, Christmas imbue us all with a holy, a contented and a cheerful spirit, for does it not bring with it the remembrance of Him who brought peace and happiness to the earth?

SOME GRUMBING.—We beg to state that, although we are generally in the best of humor, we get riled at times when we are held to account for the character of the goods advertised by us. Do our many friends want us to give written guarantees as to the infinite variety of things which find publicity in our columns, from a five cent dog whistle to a \$1,000 Laverack? Are we to swallow all the medicines, drink all the champagne and brandy, and dress in all the shooting suits, or wash ourselves in the soaps? We are really tired of being keel-hauled. Of course if we ever find fraud exercised through the medium of our columns we will expose such swindlers, as we are not mealy-mouthed in handling such gentry. In the present case, some gentlemen, members of a sporting club, are disposed to drag us over the coals about a \$5 rifle advertised in this paper. In this instance we have taken the trouble to see the rifle, and have had the opinion of a leading arm expert on the subject. The rifle is declared dirt-cheap at \$5, as it cost the government \$23 by the 10,000. It is not a Creedmoor match rifle, and not of the kind used at matches. The mistake people make is to expect a \$175 rifle for \$5, and that is not our fault.

BLOOMING GROVE PARK.

It has not taken us many years to appreciate fully the absolute necessity of having as part and parcel of every large city, certain extensive grounds where green trees, shady walks, broad expanses of lawn, with lakes and flowing streams, give health and recreation to the people; still something more was requisite, and just here private enterprise has entered to fill a public want. Some six years ago certain gentlemen conceived a plan which would combine within itself all the departments of fish culture, timber culture, the breeding of game, which would be appreciated alike by the lovers of field sports and those seeking profitable investments. It was obvious that the rapid progress of the railroads, the increase of population, was fast converting the haunts of the larger species of wild game into farms, and that those fond of the pleasure and excitement of the chase would be compelled to forego it, unless they had the means and time to travel to the far West. The idea was to purchase and control an area of land, presenting all necessary advantages, and accordingly in March, 1871, a charter was granted to the organizers of the Blooming Grove Park Association empowering them to purchase lands in Pike and Munroe Counties, Penn. Under a most valuable charter the Blooming Grove Park Association holds titles to 12,000 acres of ground with improvements. This territory is large enough to be the appanage of a German Duke. Its forests include all varieties of trees, such as the oak, hemlock, chestnut, beech, spruce, cedar, maple, birch and pine. In animals there are found there the bear, wild-cat, fisher, otter, mink, fox, coon, deer and varieties of the squirrel and rabbit. In birds there are hawks, eagles, ducks, quail, woodcock and ruffed grouse. In the numerous lakes and streams belonging to the association bass, pike and trout are found in quantity. One most pleasing feature of the Association is that every member is a shareholder. All these advantages are not a thousand or more miles from New York, but within six hours of pleasant railroad travel.

The object of this Association is not simply that of furnishing amusement for the individual members; it has a higher object in view. Its aim is to propagate and preserve all game animals, birds and fish adapted to the climate, to cultivate the forests, to supply the eggs of fish and the young of animals, and finally to give the fullest development to field and aquatic sports.

Such a vast enterprise as that of the Blooming Grove Park, so well conceived, has from its very commencement fairly succeeded; though a certain few gentlemen, shrewd enough to see into the future, have thus far borne almost alone by themselves the larger part of the expenses. The executive committee of the Blooming Grove Park Association, believing, however, that its sphere of usefulness could be increased, and that a more general co-operation would be advantageous, have framed a most liberal proposition, which we now present, and to which we invite the serious attention of all persons interested in game protection and out-of-door sports:

OFFICE OF BLOOMING GROVE PARK ASSOCIATION, No. 37 Park Row, New York, Dec. 1, 1877.

To the Members of the Blooming Grove Park Association: GENTLEMEN—It is proposed to renew the bonds of the Association, increase its membership, and take advantage of a proposition made by one of its members, to make certain valuable improvements on its property, at his individual expense. To this end the earnest co-operation of all the members will be necessary.

We submit herewith, confidentially, the present condition of the Association. You will thus be able to place the matter in its proper light to proposed members. The bonds on the property, represent, as far as they go, dollar for dollar, cash actually expended for and on the property. \* \* \* \* \* Over \$21,000 has been put into buildings, breeding-yards, etc. Besides this sum, over \$9,000 cash has been expended by one of its organizers, which sum is cancelled and no claim made, besides many other considerable sums by its different officers. The Association has no other indebtedness. No salaries have been, nor are, paid to any of its officers. It holds a valuable charter, and titles to about 12,000 acres of ground, with improvements. Its capital stock is \$235,000, divided into 500 shares of the par value of \$450 each, with power to increase its capital to \$500,000, and own 50,000 acres of land. There is no personal liability. But a comparatively small part of the capital stock is now out, so that its resources are ample.

For any further financial details, apply to one of the Executive Committee. For other information, see pamphlet and charter. \* \* \* Mr. Paycette S. Giles has placed at the disposition of the Association \$7,500 of his own bonds, on condition that the Association issue, during the coming winter, not less than 150 memberships, to the proper parties, one membership each, free on condition each new member to take a \$50 bond at par, cash. If 150 are sold, Mr. Giles proposes to invest the \$7,500 thus obtained about as follows:

Road to Park House.....	\$ 600
Furniture in Park House.....	2,000
Mule Team, Yoke of Oxen, Carriages, Carts.....	1,000
Stone Wall around Breeding Park with wire on top—Dog, Deer and Bird Proof Trout Works—the labor to be performed with our teams.....	1,500
Ornamental Grounds at Park House.....	500
Boats at Park House.....	300
Boats on other lakes.....	200
Three Gamekeepers' Lodges, at \$300.....	900
Margin.....	500
Total.....	\$7,500

If \$300 are obtained on same terms and in same time, Mr. Giles proposes to furnish \$7,500 more bonds from those owned by him, and place the \$7,500 cash obtained in trust, to be employed in fencing the whole park in same substantial manner (one wall and wire), upon the condition that the club will place \$7,500 more with it at the same time, for same purpose. Each share will constitute full membership, and carry with it *pro rata* ownership in all the property and improvements. The members will receive security in bonds for the \$50 cash paid, and draw interest thereon, and may at any

time withdraw from the Association by sale of or returning their shares to the Association. The annual dues have heretofore been \$50 per annum. It is very desirable that they should be considerably reduced. \* \* \* If the 150 additional members are obtained before the first of March, the dues will not exceed \$25 for next year, at any rate, and after that they would depend on the number of members, expenses and incomes from various sources. If 300 members are obtained, as proposed, the dues can be fixed at even a lower rate. They will probably never again be above \$35. In fact, through the very liberal donations of its organizers and different officers, the affairs of the Association have been placed on a new and thoroughly substantial basis. Some members have presented their bonds to the club. Mr. C. H. Read, with his usual liberality, has offered to furnish the money for building a carriage road around Lake Giles, at a cost of several hundred dollars, and substantial offers of aid have been made by other members. We hope to go on rapidly with the improvements tending toward the accomplishment of the great objects of our organization—the cultivation of forests; the preserving, importing, acclimating and breeding of all game and fur-bearing animals; all birds and fishes adapted to the climate, and preventing their extinction; providing the members and their families with an agreeable resort, and to give a full development to field and aquatic sports.

Every effort will be made to increase the attractions for ladies, and the Association expects their presence, aid and participation in its sports and objects.

You will see that the easy terms offered to the limited number of members could not have been made except that the bonds and stock had been presented by the club and members for the purposes herein enumerated, and that the plan contemplating the improvements should be executed without delay. We would beg you to notify us, as soon as possible, of the number of persons you will propose for membership, and trust you will take an active part in the interest of the Association. Very respectfully yours,

THE EXECUTIVE COMMITTEE. (JOHN AVERY, GEO. H. GLENEY, GEO. S. GREENE, JR.)

In order to inaugurate a new departure in the affairs of the Blooming Grove Park Association, which we believe must be successful, there will be a Reception and Ball given by this Association at Hoffman House, Jan. 8, 1878, 9 1/2 p. m. Tickets for lady and gent, \$4, including supper.

VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.—No. 8.

BY THE EDITOR.

DECEMBER 20th.

BROTHER SPORTSMEN: Although these lines are penned upon the eve of Christmas Holidays, my reminiscences are of August angling. A lapse of nearly four months has brought its natural change of seasons. The snow that mantles our northern country makes pleasant contrast to the fervent heats of summer, when the gentlest zephyr was grateful, and the gushing of the cool spring in the shade made sweetest music. The Yule-log burrs all the more brightly in the crisp atmosphere of our lower temperature. Its ruddy reflection upon the yew and holly which decorate our homes is as cheerful as the blaze that played fantastically among the pines and spruces when we camped *al fresco* upon the shores of Lake Superior. Now the peal of the Christmas carol rings out; now the clatter of the sleigh-bells is merry; the voice of the noisy brook that babbled among the stones in summer is hushed, and only its gurgle can be heard under the ice. As we swing with measured cadence over its transparent surface, the mid-day sun glints from our skates. We seem to tread on nothing. The long weeds underneath float and sway in the imprisoned current, and we see fish lying at rest or darting among them like creatures in an aquarium with only a glass between us. Hail! boon companions and beguilers of our joyous summer hours! Thanks for the winter locks and icy chains which guard and preserve you from the greed of unconscionable fishermen!

It was among the latter days of August when the porter toted my camp-kit into the spacious reception hall of the Chequamegon House at Ashland, Wisconsin. Only a brief open season remained for those who wished to catch trout. It was late for conscientious anglers, and the fish abode no longer in haunts which they pre-empted in spring. They had left the lower waters of the streams which emptied into Chequamegon Bay and moved afar up among the brush and tangle of roots and trunks which filled the upper stream. As for "rock fishing" along the shores, which is the favorite pastime in June, and always the *creme de la creme* of piscatorial sport, it was even asserted it was *nil*; old resident fishermen declared that trout could not be taken among the rocks at all at this season, and at no time except with bait. This was a challenge to provoke a laudable ambition in the breast of an angler accustomed to conquest, and I forthwith essayed to put the question to the test. Accepting the proffer and services of my friends Sam Fifield and Mr. Blank, with their skiff and yacht, we made daily excursions and cruises all along the shores of the bay; we explored the rivers and creeks that came flowing out of the river in great or lesser volume; we poked our bush rods into almost inaccessible places, and we trailed our flies where we had full sweep and plenty of elbow room. Never in my life have I found a locality that offers such an infinite variety of diversion as Ashland and its vicinity. By vicinity I mean the stretch of shore that extends from thence to Bayfield, a distance of sixty miles, and as much farther east or west for forty miles as the enterprise and pluck of the rambler will take him.

Chequamegon Bay is an arm of Lake Superior, some eight miles long and from three to five miles wide. Its southern shore is a highland. Upon a sand cliff near the head of the Bay the town of Ashland stretches itself for a couple of miles

in a line of scattered houses that face and overlook the bay. A part of this line of houses is known as Bay City. It was settled very many years ago, and being founded on underlying rock has not settled much since. It is supported chiefly by a large lumber interest. There is a road along the cliff, but as it is not more than tolerable, visitors seldom travel it; but boating parties often land at the mill and inspect the huts of the aborigines which are scattered along the beach, constructed of pilfered slabs and drift-wood. After a careful inspection of these Indian waifs none but the benevolent take much stock in them as materials for a romance. They do not even use birch canoes any longer about this section, and the dug-outs they own are always leaky, cracked and cranky. I notice they are to send a collection of Indian fabrics and manufactures to the Paris Exposition, but I incline to the belief that the birch canoes, ornamental mats and baskets, mocucks, and carved stone pipes, are as great curiosities in many parts of Lake Superior as they will be in Paris, and that a premium will have to be offered to stir the aboriginal pride to hunt them out, if not to make new ones for the occasion. The red man will not work except for great inducements. The only exercise or labor which he does not ask pay to perform is eating and digestion. To the first he devotes unwonted energy; the latter is only a function which runs itself while the Indian lies still and waits for results. The patience he shows herein is commendable. Sometimes these fellows bring a string of whitefish to the hotel at Ashland, a bit of commercial enterprise stimulated only by dire necessity and an appetite for fire-water. The little papooses are always objects of interest to ladies, to whom their stolid and lumpy physiognomy affords a morning study. Episodes of this sort make variety for those passive guests who do not ramble nor go boating, in the intervals of looking out over the lawn and verge of the cliff upon the blue waters of the sparkling bay and the wooded range of hills that borders the further shore. The site of the Chequamegon House is well-chosen. Two years ago the plateau where it stands was a forest, now it is a well-kept lawn with incipient shade trees and beds of verbenas and geraniums. Next year we shall have water all through the house, and a fountain to play in front of the piazza. There is a well-graded carriage-drive one hundred feet wide between the house and the edge of the bluff, which already extends westwardly to the end of the village. As this drive is all the time in full view of the bay, and crosses three bridges that span romantic ravines, it is very pleasant. The prettiest summer residences in the place front on the road, and a plank sidewalk runs the whole distance. In a ravine at the end of the drive is a lager beer brewery, so that the pedestrian or rider can have an object in view if thirsty. Physiologists say that the value of exercise is much promoted by having an object in view. The turnspit takes plenty of exercise, but his life is brief; so also the poor horse which saws wood in the railroad shed, is forever climbing his inclined plane, forever moving on, but getting nowhere, and so dies of monotony and disappointment, before he has lived out half his days or the full measure of his usefulness. This part of Ashland is laid out in three parallel streets with a number of streets intersecting. There are a goodly number of stores, a bank, a printing office and plenty of *ch-davant* hotels which accommodated the very considerable number of visitors who resorted hither before the large hotel was built, tempted by the attraction of the place. The printing office is owned by Hon. Sam Fifield, Esq., ex-representative in the Wisconsin Legislature, who prints a weekly paper called the *Ashland Press*. Mr. Fifield's varied abilities shine forth through its attractive columns, which are advantageously employed in promoting the local interests of his town and county. I have heard it stated that he holds a sort of territorial jurisdiction over the county, and that no editor can leave by the Wisconsin Central road without his pass being vised by his Excellency.

At the foot of the bluff below Mr. Fifield's residence is his boat-house, and a half a mile above and a half a mile below long piers make out from the shelving shore into deep water. One of these piers belongs to the Wisconsin Central Railroad Company, and cost a large sum of money. On the end of each pier is a large warehouse, at which the largest lake steamers land their cargoes and passengers. At regular intervals Capt. Patrick's little steam-yacht, which plies between Ashland and Bayfield, can be seen at her moorings. Captain Blank's yacht lies at the lower pier; several Mackinaw boats and skiffs are seen along shore, so that the little land scape is quite enlivened at all times. The great events of the week, however, are when the large lake steamers from Chicago and Duluth touch at the landing at night. Then the long rows of cabin lights beam forth brilliantly, the guests of the Chequamegon House go on board, and the sound of music and dancing mingles with the escape of the steam.

Below the village of Ashland, and all around the circuit of the bay, an almost unbroken forest remains. At the head of the bay is a little fish house, then comes Fish Creek, one of the best trout streams in the vicinity; directly opposite Ashland is a hay-meadow and barn, with a deserted farm-house, and through the premises a considerable trout-brook runs, where one can throw the fly without obstruction and have the newly-mown field for a carpet to stand on. Three miles further north, on the same side, is an old landing and a mill-site, with a road winding up a very steep bluff to the site of a paper town called Houghton, which a resident of Brooklyn, N. Y., once fondly hoped to transform into a watering-place. There are three deserted houses there—two erect and one fallen. The locality is well chosen and is much visited by picnic par-

tics from Bayfield and Ashland. From this point to the mouth of the Bay and eight miles beyond to Bayfield, there is nothing to interrupt the line of forest. Opposite the mouth of the bay is the Indian village and old mission station, known as La Pointe, a tumble-down, half-deserted place, which offers an objective point to sight-seers, but of which little need be said.

Bayfield is the loveliest town imaginable. Its pretty cottages and private residences of summer visitors are ornamented with court-yards, flower gardens, and gushing fountains, whose perennial supply of water is brought down in pipes from a high ridge of hills behind the town. The streets are wide and regularly laid out. The Island House, kept by William Knight, whose brother is a surgeon in the United States Navy, affords every comfort and convenience, and if one wishes a private boarding-house he can make his selection among the half score that offer. Little piers and private boat-houses dot the crescent shore; yachts lie at anchor here and there; fishing-boats are moving about the foreground; the smoke of a steamer looms up in the distance, and the little village of La Pointe, whose beauty is enhanced by the distance, glcams in the sun like a line of silver on the horizon. Set like a jewel in its amphitheatre of hills, it is encompassed and landlocked by the twenty-two Apostle Islands, whose wooded crowns, resting on their pedestals of red sandstone, seem like emeralds set in garnet, the whole forming a cincture almost unrivalled in physical ornamentation. Right up to their bold, perpendicular shores the largest steamers can run and lie alongside, and when the passenger would go ashore he must land from the hurricane deck. Among the maples and deciduous trees above, the visitors can ramble, while those below can wonder at and explore the caves and crevices cut out of the rock by the waves, which have washed them into fantastic shapes. Every day Captain Patrick's steam-yacht makes its excursion trip among these islands, and where in the world can an excursion more delightful be found? I am pleased with Ashland, but I am in love with Bayfield. Situated only sixteen miles apart, the two villages combined constitute a fulness of attraction seldom found anywhere, and the interchange of visits from either place affords greater pleasure and variety to guests than if the interest were concentrated and not divided. I could write a book on this delightful nook of the famed Lake Superior shore, and when I reached the end and turned back the leaves would find a dozen themes suggested for other books, which persons fond of nature would never tire of studying. Next year I shall visit the spot again (*D. V.*), and see what new charms have developed since I reluctantly left its delightful shores.

All along the rocky shores of Chequamegon and the Apostle Islands, which I have so cursorily referred to lie, in spring time, the great speckled trout whose fame is widespread. In the deeper water swim the *Salmo namaycush*, the huge lake trout, which weigh fifty pounds and more. They can be taken by trolling in June in vast numbers. As to white fish, those only know their excellence who have tasted them fresh from the pure cold waters round about. There are not less than fifty trout streams along these shores, of easy access by steamer, while accessible interior lakes abound in black bass, rock bass, perch, pike and mascalonge, all of which are keen for bait or spoon. A map which gives the names of all the trout streams can be obtained from Mr. Knight, of the Island House, or from Isaac H. Wing, Esq., land agent, at Bayfield. Many of these streams have scarcely been fished by sportsmen.

Although smaller than the speckled trout of the Nipigon River, on the north shore of Lake Superior, they run from one to four lbs. in weight. They are certainly large enough to afford amusement to the most ambitious angler. As "it is not all of life to live," so it is not all of fishing to fish, here. The mind is constantly diverted and occupied by the strange sights one sees, and as the angler's skiff passes from point to point along the base of the sandstone cliff, he seems to move in some enchanted realm, where the caprice of weird beings has created strange shapes, and hewn out abodes for gnomes and geni and inhabitants who live not as men live. The whole face of the perpendicular wall is scarred and seamed and broken; huge rocks, riven by the intense frosts of winter, have been split off from the main body and hurled into the lake, where they lie in monoliths or ragged piles; caves penetrate far into the rock, in whose recesses the waves swash with a mournful cadence, and if one listens on a calm day at some chance crevice he can hear the inner chamber give forth a sonorous and uncertain sound, as if from depths unmeasured. In a storm the great hillows roll into the caves and thunder with reverberations that deafen and appal, surging upward and around the concave space, scouring its surface, wearing and enlarging it year by year, until perchance a million tons of rock undermined, give way at last and fall in promiscuous ruin. In many places the cliff is stained with oxides that exude from unknown mineral deposits within, and the frescoes are scarcely less striking than those of the much visited Pictured Rocks further east toward Marquette. High above the level of the lake the unbroken forest waves its fronds, resting on its cliff foundation, great trees clinging to the verge and protruding their naked roots into space, like the tentacles of an octopus reaching out in search of nourishment and finding none; and sometimes when a huge mass of rock splits off the trees fall with it and are hurled into the lake below, where they afford new lurking places for the fish that congregate among their branches and hide under their trunk and roots. The water immediately along shore varies from four to eight feet in depth; two rods away it is four fathoms; a little further out fifteen fathoms and more. It is among these

broken rocks and debris that the trout are found, and it will be seen from the nature of the case that the angler's best method is to sit in his skiff and cast his line in shore, while a comrade uses the paddle when required. There is no lack of casting-room. The whole eight miles of the bay is behind his back, and there is no chance of his line being hung up on the farther bank. Very often excellent opportunities are obtained by getting out upon the piles of rocks; coignes of vantage are also secured by stepping on ledges and hugging the face of the cliff, steadying the poise by grasping a bush with one hand while the other hand dexterously tosses a fly into the mouth of some shadowy cave, and persuades the trout from his element. But it is delicate work to catch fish when the sun shines. The water is clear as crystal. One can see twenty feet into its depths, and the fish can see the angler equally well, and better, for the refraction from the face of the rock reveals every outline of his approaching figure so distinctly that even the expression of his face is limned in the picture, and the wary trout fears Machiavelian arts.

When I went over from Ashland to the rocks in my friend's yacht, I knew well that my skill was under severest scrutiny. They had wagered on shore that I would not lift a trout with flies, but I had no other lure whatever, and so I convinced them. If there were no virtue in soft persuasives, I determined not to use more positive measures. The wind blew a stiff breeze from the southwest, right over the cliffs of the further shore, but our schooner was staunch, some thirty feet in keel, and so we carried all sail bravely until three-fourths of the distance had been accomplished. Then the winds became at once flawy and baffling, sometimes swooping over the cliff in spiteful spurts and heading us off from all points of the compass in succession, and anon dying away to a dead calm; then, all at once, while the sails hung limp and listless, a cat's-paw would jump aboard us, right over the waist. Giving as little sheet as possible, the lively craft would eat up into the wind on the edge of her combings, cutting a semi-circle like a comet. So we would gain a little; but presently the wind would fall again, and the little breath which was vouchsafed us would head us off from the northward. So the capricious breezes continued to play strange antics, alternately giving and taking, until the monotony of our effort to make the shore became tedious. Still the water was too deep for anchoring, and we did not care to raise a white-ash breeze with the skiff and tow-line, so we hung on, my friend to the jib and fore-sheets and I to my main-sheet and tiller, hoping for an inch or two more of advantage, the calm dead as a door-nail, and not a ripple to be seen between ourselves and shore. It looked like an all-day's drift, when suddenly, without any admonition whatever, another flaw jumped over the cliff, and in a twinkling our craft was heeled over, taking water over her combings by the barrel, shifting sand-bags and mixing things generally. It was the work of not more than two seconds. The flaw had come and gone and all was still. We had barely escaped a capture. Righting things in a few moments we let go our anchor, and, giving all the scope we had, found bottom in eighteen fathoms of water. Making all snug, we took to the skiff and pulled for shore with our lunch and fishing tackle, discussing meanwhile the character of the Lake Superior breezes, which are always either treacherous or stormy.

I had no success at first with my flies, and soon discovered that it was useless to fish in that bright sun and clear water. There was not one favoring condition in the case. So we paddled into a cavern whose roof rose some seven feet above the water, and getting into its shadow twenty feet back from the entrance, lay quiet for a while. Presently a trout came out from under a rock in front of us, and, dropping a fly in the water as if it had fallen from the roof above, we had the satisfaction to see the trout seize it. It was a little six-inch fish, but we had him in the boat in a twinkling, and thereby proved that trout could be taken then and there with flies. Then we addressed ourselves systematically to the business before us. Pushing the skiff quietly to the entrance of the cavern, I cautiously tossed my fly hither and yon among the scattered rocks and along the side of the cliff. No response. Then we pushed out and felt our way little by little, testing every likely place. Presently our reward came. We hung a noble fish, and as he fastened, we backed carefully into deep water and let him play. It was the luxury of sport to follow him wherever his moods led. There was little anxiety about losing him, for we had the whole bay for a circus, and all that was necessary was to keep him well in hand as the rider does his steed, barely feeling his mouth, but having him always in control. When we finally added him to his little mate in the bottom of our craft, I felt that I had triumphed. We afterward caught six more, and then employed our time in rambles about the shore. We were satisfied, and so were our friends after we returned and showed our trophies.

I would like much to fill a double letter with my experience in rock-fishing, and perhaps my readers will blame me for not saying more; but I do not see that I have anything essential to add in the way of needed information, though I could weave a pleasant story to my own delight, if not to theirs.

After a week or more of pleasant sojourn in this delightful region, I took passage one day on the steamer that plies to Duluth, and after a voyage of seventy miles or so, found myself in the territory of Proctor Knot, and under the charge of Col. Hull, who keeps a popular hotel on the best town lot.

Of Wisconsin it may be remarked that its physical features and its fauna are much like those of the Aroostook in north-

ern Maine. It is filled with lakes, large and small, and is intersected by streams. Forests cover its length and breadth. Moose are found there, and nearly all the game and fish of Maine, excepting caribou and salmon. The Wisconsin Central Railroad gives readiest access to it; but if one has time and loves the water, he can take steamboat from Buffalo, Chicago, Milwaukee or Detroit, and traverse the entire chain of the great lakes.

HALLOOK.

PERSONAL.—Probably there is no sportsman better known in the United States than Colonel W. H. Holabird, who paid us a visit last week. Colonel Holabird is now en route for the South and Southwest, where he will pass the winter. He has kindly consented to take charge of Hallock's "Sportsman's Gazetteer" during his trip South, and will introduce the book among his numerous southern friends. During this gentleman's absence from Indiana, the extensive business in sportsman's clothing Colonel Holabird carries on will be conducted by Mr. J. S. Holabird.

MAT MORGAN'S CARTOON IN THE SPIRIT OF THE SPIRIT OF THE TIMES.—The Spirit of the Times sends us a charming cartoon, indicative of the coming year. It is St. Nicholas, the much beloved saint, who, muffled up in his furs, holds in his mittened hands the new advent—a pretty baby. From a halo around the child's head there blazes out 1878. A company of merry boys and girls welcome the new year. Mr. Matt Morgan, whose drawing is always as accurate as his feelings are poetical, has produced a capital picture, and the sentiment conveyed is a most happy one.

A SPORTSMAN'S CHRISTMAS GIFT.—For an angler nothing is more acceptable Christmas or New Year's present than one of Leonard's split bamboo fly rods. Mr. James H. Kidder, at No. 19 Beaver St., upstairs, New York City, has a few of these excellent rods, and invites an examination of their merits.

—For those who cannot afford a weekly sporting journal for \$4 per annum, the new monthly called Field and River, at \$1 per year, will undoubtedly give satisfaction. It is a modest but neatly printed periodical, and is published at New Brighton, Pa., by John S. Hoopes, steam and job printer.

THE D. K. E. ANNIVERSARY.—The thirty-third anniversary of the Delta Kappa Epsilon Fraternity was held last Thursday evening at Delmonico's, President Sydney Webster, of Yale, in the chair. After the dinner the following toasts were proposed: "Our Fraternity," responded to by Charles Hallock, of Amherst; "The Pulpit," by Rev. Dr. Ingersoll, of Williams; "The Bar," by Perry Belmont, of Harvard; "The Medical Profession," by Dr. S. E. Allen, of Amherst; "The Merchant," by Charles A. Wiley, Cornell; "The Press," by M. Ellis, of Amherst.

AN ENGLISH TRIBUTE TO AMERICAN SCIENCE.—Some time since we took occasion in these columns to call attention to the commendable attitude of our Government toward science and scientific investigation. We are pleased to see that this spirit has been recognized and appreciated abroad. At the anniversary meeting of the Royal Society at London, the other day, President Hooker, after a detailed examination of recent scientific investigations in America, said:

I must not close my notices of some of the labors of our scientific brethren in the United States without expressing my admiration of the spirit and manner in which that government and people have co-operated in making known the physical and biological features of their country. The results they have given to the world are, whether for magnitude or importance, greater of their kind than have been accomplished within the same time by any people or government in the older continents. How great would now be our knowledge of the climate and natural features of India had its trigonometrical or revenue surveys been carried out in the same catholic spirit, and what scientific literature can England and her colonies show to compare with that of the United States surveys?

### The Rifle.

#### TEAM SHOOTING.

FOR THE "FOREST AND STREAM AND ROD AND GUN" MEDAL.—Under the following conditions this journal proposes presenting to the best team, members to belong to some regularly organized association, a gold medal: Shooting to take place January 23, 1878, at Union Hill Schutzen Park.

#### RULES AND REGULATIONS.

Each team to consist of twelve men; ten shots per man. Shooting, off-hand; distance, 200 yards, any rifle; open to all clubs or associations.

No person allowed to compete in a team unless he is an active member of the club for ninety days. Practice from 10 A. M. to 1 P. M.

Team shooting to commence at 1 P. M. Targets to be drawn for by each captain of each team.

Entrance fee, \$6 for each team.

Ring targets to be used, three-quarter inch rings.

After deducting the expenses for the markers, the balance will be divided to the second and third highest teams.

Shooting to be governed by the Schutzen Bund rules. All teams can enter for the competition at the FOREST AND STREAM AND ROD AND GUN office, 11 Fulton street, city, on or before January 20, 1878.

Captains of teams entered will constitute the committee.

MASSACHUSETTS—Walnut Hill.—Match number two, in the fall programme of the Massachusetts Rifle Association, was resumed on Saturday. This is a match open to all comers; distances 200 and 300 yards; rounds, seven at each distance—to be fired without cleaning from the beginning to the end of the score on both ranges; winners to be determined on the averages of three best consecutive scores. Prizes—first, a Peabody-Martini breech-loading Creedmoor rifle, value \$125; second, a life membership in Massachusetts Rifle Association, \$25; third, a silver medal, value \$15; fourth, cash \$10; fifth, cash \$5. The contest on Saturday was won by J. Wenyns, Jr., by a score of 55, but, as he has not made the other two requisite highest scores, the match still remains undecided. The appended summary shows the score made by each competitor in Saturday's contest:

Table with columns for names, 200 yards, 300 yards, and Total (Tl). Lists competitors like J. Wenyns, Jr., H. Mortimer, E. B. Souther, etc.

After this contest a short-range match was shot, the distance being 200 yards. Rounds, 7; prize, the regular December badge, to be shot for twice, and won by the highest score on either day. There were nine entries, and the best score was made by H. Tyler. The next meeting will be on Saturday, the 23d inst. The following are the scores made:

Table with columns for names and scores. Lists competitors like H. Tyler, J. S. Sumner, E. B. Souther, etc.

NEW YORK—Syracuse.—A team of five of the Amateur Rifle Association, of Syracuse, challenged and met a team of similar numbers of the Blydenburgh Club on the 14th, at the range of the club last named, for a friendly contest. Scores were made as follows:

Table with columns for names, Amateur Rifle Association, and Blydenburgh Rifle Club. Lists competitors like Lockwood, Jones, Chapman, etc.

ZETTLER RIFLE CLUB.—At the weekly shoot, Dec. 11, at 209 Bowery, 100 feet off-hand, at Creedmoor targets reduced, 10 shots per man, possible 50, the score was:

Table with columns for names and scores. Lists competitors like M. B. Engel, L. A. Beaslee, B. Zettler, etc.

CONLIN'S GALLERY.—The fourth competition of the Marksmen's Badges was held at Conlin's Gallery on Monday evening, Dec. 17, 1877, with the following results:

Table with columns for names, 200 yds, 300 yds, and Total (Tl). Lists competitors like M. R. Engel, W. McDougal, J. Blydenburgh, etc.

\* First badge. † Second badge. ‡ Third badge. § Fourth badge. The fifth competition will be held Dec. 24.

THE AMATEUR RIFLE CLUB.—The Executive Committee of the Amateur Rifle Club met Dec. 13 at No. 7 West Thirteenth street, the President, Lieut.-Col. E. H. Sanford, in the chair. A committee of three was appointed to arrange for a room, with lockers, at Creedmoor, to be ready for the club by next spring. Mr. A. Alford, the treasurer, was directed to take measures for the collection of members' dues. A bill of \$182 for target hire was received from the National Rifle Association and ordered to be paid. Col. Sanford announced that he had received the badges won in the late long-range inter-State match by members of the club, and the trophy won by the team was directed to be placed in the window of a prominent jeweler. Mr. A. Alford offered a Remington Creedmoor rifle or shot-gun, worth in either case \$150, to be competed for next spring by the members of the club, provided they can procure range room to shoot at 1,200 yards distance.

NEW JERSEY RIFLE ASSOCIATION.—A meeting of the Board of Directors of the New Jersey State Rifle Association was held at Parlor No. 19, Astor House, on Friday last, Col. Edward H. Wright, the President, in the chair. The preliminary meeting of the association was held during the previous week, at which the following officers were elected: President, Col. Edward H. Wright; Vice-president, William H. de Hart; Secretary, George Squires; Treasurer, H. F. Anderson; Board of Directors—General McIntosh, B. A. Vail, A. R. Warner, J. T. B. Collins, G. A. S. Man, Dudley S. Steele, Major Henry Fulton, Peter Bonnett, Dr. J. M. Dart, George Carter, Capt. Geo. R. Winn and the officers. Major Fulton, of the Committee on By-Laws, submitted a copy of the by-laws governing the National Rifle Association as covering all the necessary rules. The by-laws were adopted, section by section, with some slight alterations. The most important change was in the concluding section, which gives the members of the National Rifle Association the power to vote for amendments to the by-laws. This was altered on the motion of Gen. McIntosh, so as to reserve that power to the Board of Directors. On motion of Major Fulton, a committee of three was appointed to secure a permanent place of meeting for the Board of Directors. The chairman selected Messrs. Fulton, Anderson and De Hart. A discussion ensued in reference to procuring a suitable piece of land for laying out a rifle-range. It was announced that a meeting of the association would be held at Elizabeth, N. J., on Monday evening.

NEW ORLEANS RIFLE CLUB.—Probably on account of the fine hunting weather, the assemblage of members of this club was not so large as could be expected at their meeting, Dec.

9. Among a number of good scores made at the different ranges, was that at 600 yards, off-hand, standing, by Capt. Kressner... 2 5 4 5 4 3 5 6 5 5 5 8 5 3—64 and at 1,000 yards by Robert Eyrich... 4 5 5 5 5 5 5 5 4 5 5 4 5 5 5 5—72

The members of this organization are seriously contemplating the raising of a team for competition in next year's Inter-State rifle match, and with the excellent material at hand anticipate a favorable result. Of military organizations the Mitchell Rifles contested at this club for the Goodwin badge.

Table with columns for names and scores. Lists competitors like John P. Roche, Capt. M. Cooney, Corp. M. J. Cooney, etc.

Good scores were likewise made by Mr. Garry, of the Irish Rifles, and Mr. Robinson, of Fort St. Philip.

THE NEW SHARPS' HAMMERLESS RIFLE.—The following very fine scores were made Nov. 11th, with the new hammerless rifle, manufactured by the Sharps' Rifle Manufacturing Co. Distance 950 yards. Two sighting shots were taken with the first rifle fired, and elevation etc., having been determined, five rifles were used. The following were the scores out of a possible 75:

Table with columns for Rifle No. and scores. Lists rifle numbers and their corresponding scores.

A NEW NATIONAL RIFLE ASSOCIATION.—A scheme is now in process of ventilation to establish a new ("National") National Rifle Association. The proposition is made, as to officers, that vice-presidents be selected from all the States, and that a general of the army be placed at the head of the association as president.

ABOUT THE CHAMPIONSHIP.—To judge from the articles in the American papers the feeling among the riflemen of the United States is opposed to the organization of any "International" small-bore contest, except that for the Centennial trophy, which, by the way, it is proposed to shoot for next year in Paris, as a convenient neutral ground, particularly the occasion of the Great Exhibition. As we have often said, we think it not very likely that any English team will shoot for the trophy in question against Irish or Scotch antagonists, who are clearly admissible in future; and certainly no United Kingdom team can take part in the contest except as the sole representative of this country. But we cannot quite understand the objection on the part of the Americans to shooting a match at Wimbledon against a team of the United Kingdom. So far as we can judge, the objection seems to depend mainly on the exaggerated importance of the term, the "Championship of the World." The match-rifle "world" is as yet very small, and we regret that such a high-flown term as championship has been invented at all. Certainly, if an American team does come to Wimbledon, and a mixed team of our countrymen does manage to beat it, which seems at present not very likely, we should have no cause to call ourselves the "Champions of the World," except in so far as that we should be the "champions" of the year of the particular cup or prize, if any, which might be connected with the match.—Volunteer Service Gazette.

All we have to say about the above is this: Aside from the natural spread-eaglesism, so inborn in our free and enlightened people, the term "Championship of the World," though decidedly high-flown, spells exactly what it means. So far we have secured the title, and whether we are Champions or the Best Snorts must remain, with all its high-falutism, until some other team better than our own beats us.

Our American cousins, and some Englishmen to boot, seem to think that those among us who decline to admit that the result of the Centennial match ought to lead us without further consideration to disqualify the muzzle-loading match rifle, at once and altogether, are very pig-headed. It appears to us, as we said last week, that the matter may well be left to the competitors in "any rifle" contests, who will certainly get the best rifle they can. If it is found that the power of being perfectly cleaned after every shot, undoubtedly possessed by the breech-loader, (time being of no more importance than it is with the muzzle-loader), leads to higher scores, then, assuredly, the breech-loader, with its very delicate cartridge, will soon supersede its rival in this country, as it has already done in America.—Volunteer Service Gazette.

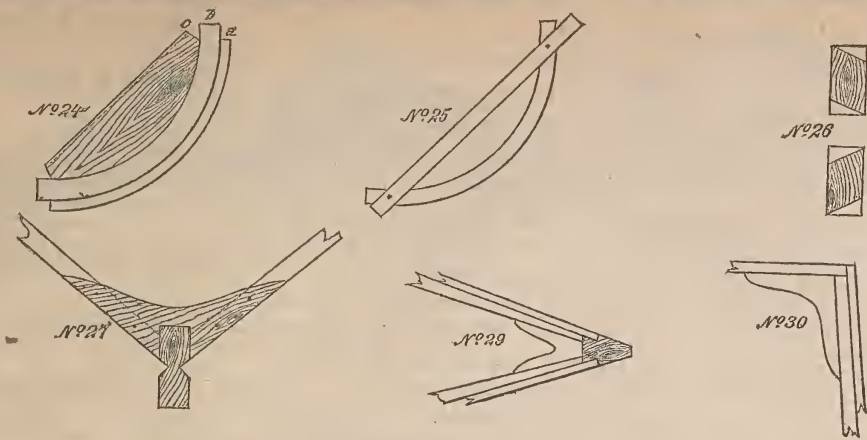
We think our most careful contemporary, to whose columns we are indebted for so much interesting matter, is right here. Now, we honestly believe that the competitions for "any rifle" will bring out better shooting in England with improved breech-loaders, and that sooner or later the merits of the two systems will be determined. But the trials must be with improved breech-loaders. Whether they be English or American arms we do not care. Nothing would be more asinine than for us to say that the wonderful workmen of England could not produce breech-loading arms as accurate as our own, but we are inclined to insist that they have not done so yet.

—A correspondent writes us in regard to the tone of the English press about our rifle shooting:

It is pleasing to see how our English friends have dropped their patronizing tone and begin to look up to us as instructors in the art of rifle shooting.

FOREST AND STREAM.—An authority upon any given subject is a "good thing to have in the house." We refer with pleasure to a sprightly weekly journal, the FOREST AND STREAM. It is replete with most interesting and instructive matter relating to our glorious forests, streams and lakes, and all that is contained therein. Its pages will serve to pass the time of the father, mother, son and daughter, educating each member of the family circle. The last number is particularly interesting.—Phila. North American, Nov. 31st.

—For the month of November the mean midday temperature at New Smyrna, Fla., was 71°. There was frost on the 30th.



**Yachting and Boating.**

**HIGH WATER FOR THE WEEK.**

Date.	Boston.		New York.		Charleston	
	H.	M.	H.	M.	H.	M.
Dec. 21.....	11	56	8	36	8	13
Dec. 22.....	0	22	9	31	9	01
Dec. 23.....	1	10	10	27	9	50
Dec. 24.....	2	00	11	23	10	39
Dec. 25.....	2	52	Mid		11	27
Dec. 26.....	3	45	0	46	Mid	
Dec. 27.....	4	41	1	36	0	43

**BOAT AND YACHT BUILDING.**

BY NAUTICUS.

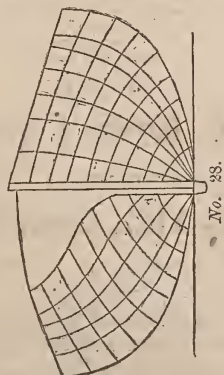
**THE BUILDING OF THE BOAT.**

The construction drawings are copied or laid off on a floor to the full size of the proposed boat. Larger and longer battens are used, and the lines traced up as described in the article on the construction drawings. The mode of working is the same for all full modelled vessels, from a row-boat to a ship, the only difference being that due to size. After the floor drawings are completed, a mould-board is cut for each pair of ribs and nailed to the floor. The manner of cutting the mould-board is explained in diagram No. 24. The outside curved line represents the outside of the cross section on the body plan; the space from A to B represents the thickness of the planking, and the space from B to C represents the thickness of the rib. The mould-board is cut enough smaller than the cross section outline on the body plan to allow for the thickness of the rib and planking. The mould-board is indicated on the diagram by the curved line C and the dotted line. Ribs for a boat sixteen or seventeen feet long and four feet wide may be placed a foot apart. The lengths of the ribs are found from the body plan. Saw them out of white oak, one-half or five-eighths of an inch thick, and let them be all three-fourths of an inch wide, with square edges. The ribs for one side of the boat are steamed in the steam-box and bent closely to the moulds, fastening them by blocks and nails, and after remaining on the moulds a day or so, are removed, a stay-lath being nailed across the curve to prevent them from springing, as shown on diagram No. 25. The ribs for the other side of the boat are now bent on the mould and undergo similar treatment. The ribs are now bevelled on both edges; the bevels are greatest at the gunwale end of ribs and diminish to nothing at the keel. The intersections of the different water lines with the cross sections on the half breadth plan, show the bevels required for each pair of ribs. The bevels of each pair of a pair are the same in angle, but are opposed to one another, forming "rights and lefts." Diagram No. 26 will make the matter plain. After beveling, the stay-laths are again fastened across the curve of the ribs, and the length of the ribs marked by laying them on the body plan and marking the endings on gunwale and keel. Each pair of ribs is connected at the bottom by an angle piece called a "bottom," fastened to the lower ends of the ribs by two small nails in each rib.

The angles to cut the bottoms are found from the body plan. Diagram No. 6, in the paper on the ship-jack model, shows the bottom and its connection with the ribs and keel. The mode of forming the stem-keel and stern deadwood are also described in the same paper, diagrams Nos. 7, 8, 9, 10 and 11. The bevels for the stem, and for the grooves in the same, are found from the half breadth plan, the intersections of the water lines, with the half thickness of the stem squared down, giving the bevels for one side, the bevels

for the other side being the reverse of those taken from the drawing. The manner of cutting the grooves in the stern deadwood, also the bevelings of the keel and mode of joining the several parts, are all clearly explained in the paper on the ship-jack model. The frames that fasten on the stern deadwood are joined as represented in diagram No. 27. Set up the stem, stern and keel on a stocks, as before described, adjust the stem and stern until they stand vertical by a plumb line, and stay-lath securely in place; also fasten the stocks securely to the floor. Connect the top ends of each pair of ribs—technically called a frame—by a stay-lath, placing the ribs the proper distance apart at the upper ends. The measurements are obtained from the half breadth plan, and are twice the width of the sections on the gunwale, minus the double thickness of the planking; the frames are stay-lathed this distance apart, measuring from outside to outside. Make a mark in the centre of the stay-lath to correspond with the base line of the half breadth plan, and as a guide in squaring up the frame. All the frames are prepared in like manner and fastened to their places on the keel by a small bolt or rivet through the bottom and keel. The frames are stay-lathed in such a manner that a line drawn from the centre of the stem to the centre of the stern post will be vertically over the centre of all the different frames. If there is a beam overhead, stay-lath the frames to it, or to the ceiling of the work-shop. If no such conveniences are at hand, a stiff plank can be fastened between the stem and stern-post, above the keel, to which the frames can be fastened. The dimensions of the principal timbers for a sixteen-feet boat may be as follows: Keel, one and one-quarter or one and one-half inch thick, by two inches or more deep; stern deadwood, of the width and shape shown on the sheer plan, and as thick as the keel along the groove line, its outer edge at the stern planed down thinner. The stem varies so much in its different parts that no particular size can be given. It should be about four-eighths of an inch thick at its forward edge on top, and less at the bottom. The planking laps on it at least one and one-half inch, and from groove at top of stem to forward edge of stern should be one and one-half or two inches.

Measurements from the floor drawings will give exact dimensions for every part. Stern-



board, three-fourths of an inch thick. The wood for all parts of the frame should be white oak, and all sap wood rejected. Nails and rivets are best of copper; galvanized iron will answer—but for a small boat the difference in price is not a great matter. Boards for planking—cedar, one-half inch thick, and long enough to reach from end to end without joints. White pine makes a very good planking, and, when cheapness is an object, may be used. In selecting cedar for planking, be careful to get stuff as free from knots as possible. Diagram No. 28 shows the manner in which the planking is cut

and bent to the frames. In this diagram the planks are all shown as of an equal width. It is customary to make the planks next to the garboard strake—called broad strakes—wider than the others; but it will be easier for the tyro to make them all of about the same width, as shown on the diagram.

To mark the planking on the body plan or on the ribs, divide the distance along each rib into a number of equal parts, corresponding to the number of planks it is proposed to place on each side. As the length of the ribs are different, the planks will be widest at the middle of the boat and narrow toward each end. The planks are also more or less curved. The first planks to fasten in place are the upper strakes along the gunwale. To determine their shape, procure a batten as long as the boat, six to eight inches wide and one-fourth of an inch thick. Place the batten on the upper edge of the ribs, and clamp it from one end of the boat to the other. The batten is now in position to have the markings on the upper ends of the ribs, denoting the gunwale of the boat, and the markings which determine the width of the upper strake, transferred to it. Unclamp the batten and lay it on the board selected for an upper strake; prick through the marks on the batten with a brad-awl; remove the batten and the marks will be found transferred to the plank; connect the different points by a suitable batten and the upper strake will be shaped in outline ready for cutting to shape. After the first upper strake is completed, it is used as a pattern to cut the strake for the other side of the boat. The ends of the upper strakes are now cut to fit the groove in the stem and nailed to their places on the boat. The gunwale is now formed by sawing off the projecting ends of the ribs to an angle of about forty-five degrees, and fitting and securing the rails in place, as directed in the paper on the ship-jack model. Dimensions of rails, one or one and one-quarter inch by three-fourths of an inch. The ends of the rails at the stem are tapered down to one-half or five-eighths of an inch wide. Diagram No. 29 shows the connections of the rail with the stem, and diagram No. 30 the connection of the rails with the stern. The stay-laths are now removed from the boat, the frame detached from the stocks and inverted on benches, and the planking put on in the following manner: First, the planks next to the upper strakes; secondly, the planks next to the keel, technically called the garboard strakes; then the planks next to the garboard strakes, called the broad strakes; and lastly, the strake along the bilge—or greatest curvature in the ribs—called the shutter strake. Suggestions as to ceiling, seats or thwarts, row-locks, etc., have been given in previous articles. The boat drawings with this article are for a boat with a different midship section than the one already published, and are for a boat sixteen feet long and four feet wide. It can be made larger or smaller as the builder may require, but for general use the size given will be found the most useful. The model here given will carry more load, and will make a much stiffer boat than the model given with the paper on drawing. Either will make a good and easy rowing boat. A sail may be used of sixty to seventy square feet area.

**Rational Pastimes.**

**FOX HUNTING.**—The Queen's County hunt met Saturday at New Cassel Wood. The large attendance, including all the familiar faces, spoke well for the undiminished interest in the sport. The run, first to the northeast and then to the eastward, was thence at a rattling pace across the plain toward the kennel at East Meadow. Then the farming lands with stiff posts and rails tailed the field out considerably, leaving the loss courageous in the rear. When, however, the pack started for the cedars in the direction of

Merriok the field was well together again, with twenty or thirty in full view of the hounds through the cover, thence into the open space of the Hempstead plains, and away over the farms and fences they flew, when reynard, turning to the northeast, made straight for Hicksville. Then wheeling, the run was over the plain toward the Island of Trees; and in the open two miles to the west of Farmingham the fox was killed. One of the ladies was among the first, and the pads were awarded to strangers. The run of about seven miles and one-half was gone over in less than fifty minutes.

**THE MONTCLAIR EQUESTRIAN CLUB**, in which are enrolled forty-six members, had a very successful run last Saturday, although as the harriers had not yet arrived from England, it was necessarily a drag hunt. The laurel wreath, which for the nonce took the place of the brush, was awarded to Miss N. Thompson.

**NEW YORK ATHLETIC CLUB.**—The First Annual Winter Meeting, open to amateurs, will be held on the evening of Friday and Saturday, January 4th and 5th, 1878, at Gilmore's Garden (formerly Barnum's Hippodrome). The programme will be as follows, unless circumstances demand a change:

First evening—1. Sparring, light weight, 135 lbs. and under. 2. Sparring, heavy weight, 155 lbs. and over. 3. 75 Yards run, handicap, 1st trials. 4. Mile walk open to those who have never beaten 8:30. 5. Tug of war (10 men on each team), trials. 6. One mile run, handicap. 7. One lap hurdle race, handicap, trials, 10 bush hurdles, 3 feet. 8. 75 yards run, handicap, 2d trials. 9. One mile walk (special). 10. 440 yards run, handicap, trials. 11. One lap hurdle race, final. 12. Tug of war, final.

Second evening—1. Sparring, middle weight, over 135 lbs. and under 155 lbs. 2. Fencing. 3. 75 yards run, handicap, final. 4. Two mile walk, handicap. 5. 75 yards hurdle race, handicap, trials; 7 bush hurdles, 3 feet. 6. 440 yards run, handicap, final. 7. International tug of war (professionals), trials. 8. 75 yards hurdle race, final. 9. One-half mile run, handicap. 10. 75 yards run (special). 11. International tug of war, final.

No communication will receive attention unless addressed to the Club Box; and all persons are particularly requested not to call upon the officers of the Club at their places of business.

For all particulars address Alfred H. Curtis, Secretary, P. O. Box 3101, New York.

**ATHLETIC CLUB OFFICERS.**—The American Athletic Club, of this city, which has hitherto had only a temporary organization, has effected a permanent one by electing the following officers: President, John Galt; Vice-President, B. Lecky; Secretary, S. W. Hoar, Jr.; Treasurer, Frank C. Lowry; Board of Management, G. Van Tambocht, W. O. Benne, E. W. Burnett, M. D.

**FOOT BALL.**—The Brooklyn Polytechnic Institute and the New York College teams. The game which was sufficiently interesting developed no very friendly spirit between the players. The Polytechnic team secured one touch down. The teams were:

Polytechnic.—Hough, Ely, Laidlaw, Atkinson, Black, Field, Osborne, Murray, Jenkins, Leadt, W. Field.

New York College.—S. Ormsby, C. Ormsby, E. Bunzl, Fabrigo, Fridenberg, Hayner, Biddian, Eyer, O. Bunzl, Wagster, Langbein.

**ON THE GODBOUT RIVER.**—We copy from the London Field the following very graphic account of salmon fishing on one of the very best rivers in Canada. We do not have to send to London for all such clever descriptions of American sport by any means, for our own Dawson, Wilkinson, Warren, Venning, Ward, and a dozen others have already embellished the columns of FOREST AND STREAM with brochures equally piquant and truthful. Nevertheless, we care not to omit helping ourselves from foreign store when such rare opportunities offer as this. The information given has of itself an intrinsic value which our own anglers may profit by, if they choose:

"Prostrated by the heat as the long summer days drag on, what so powerful a pick-me-up as a week amongst the salmon? The morning was lovely when the tight, little yacht Cruiser, eighty tons register, with a party of fishermen on board, left Quebec for the Godbout, drawing but five feet of water, as she steamed from the wharf and tumbled about the St. Lawrence (agitated by the meeting of the tide and stream), doubts, soon to be discarded, arose as to her behavior when she should encounter the big waves of the Gulf, several hundred miles below.

With fair wind and tide, doing her thirteen knots an hour quietly as a sail boat, past the Island of Orleans, the garden of Quebec, skirting the bold north shore (the home of moose, caribou and bear), Grosse Isle, of quarantine fame, Crane Island (where sportsmen, from early morning until sundown, hunt wild fowl with varied success); past timber-laden ships bound seaward, and vessels working up against wind and tide, our little craft, her first day's work accomplished, crept safely as night drew on, along the wharf at Riviere du Loup.

A stiff north-wester blew next day, and as we bowled along in the trough of the sea, broadside to the waves, our commodore's admiring exclamation of yesterday, "She can't capsize," was changed to resigned assurance that, she'd certainly go over; but she didn't

and evening saw her safely anchored inside Biquette Island.

At 2:30 A. M., aroused by the starting of the engine and noise of the anchor-chains I peeped from the cabin window. A dubious light on the far-off sea, a bright and fast increasing radiance, a blaze of fiery water from the horizon to the yacht, proclaimed that the sun was up. One hundred miles across, in a north-easterly direction, lay the Godbout. Porpoises rolled sleepily around, and seals here and there popped their round heads above the surface and disappeared as we passed; and as the steamer approached the shore, innumerable wild ducks rose like an exhalation from the sea, circling in clouds, and even shading us from the sun. We anchored at the mouth of the river, and the parting whistle of the yacht reverberated among the hills, scaring the lonely group of Indians gathered on the beach, as we paddled up to the camp a mile and a half beyond. The Godbout supplies first-rate sport for three rods. Two miles of water cover all the pools in which salmon are killed, and these, divided into three portions, one for each rod, are taken in turn by the fishermen. Each division has its own peculiar charm, and each differs entirely from the others. The natural divisions are the Camp Pools, the Centre Pools and the Upper Pool.

Fishing in the Camp Pools, partly from the shore, partly from a boat, with plenty of room to play the fish, a good beach to land him, and every facility for following him, would, by many devotees of the rod, be considered perfection. Here little danger exists of losing a well-hooked fish, and although, fresh from the sea and vigorous, he may spin off your line to within a few yards of the end, reeling up or giving out as your gaffer sends the boat after him, you may, with undisturbed equanimity, smoke the fresh-lit pipe, sure of your quarry.

Not so certain are the pools immediately above, although easy to fish as compared with those higher up. Their waters are divided by a small wooded island, below which, forming for a few hundred yards powerful rapids, they unite in the quiet of the Camp Pools.

Leaving these, a short struggle with paddle and pole brings your boat to the head of the Belle Rapid, where it is left handy for shoving off. A little way above, you may hook a salmon in the Belle, and if you can lead him up stream, he is probably yours, but his course is oftener down. With a heavy strain upon your rod you try to hold him back, and yet are forced forward so fast against your will, that to keep your feet, save your tackle, and scramble panting into the boat is no easy task, and you are in for a rare bit of sport. The gaffer shoves into the rapid, sweeps past boulders and ugly eddies, by magic saving an upset, and, as the sudden slackening of the line tells that the fish has halted, brings up in the middle with a jerk sadly dangerous to your equilibrium. The water boils and hisses round you, and as you totter for an instant and steady yourself, another rush for very life is made. The boat yields to the current, and sweeps into the quiet pool below, where, the tumult over, you can settle at your leisure with your fish. So much for the Belle and her neighbors.

Half a mile above, the river, which along its entire course is picturesque, becomes rougher and wilder. The banks, closely wooded, rise abruptly, on either side, extending into hills of considerable height, and the pools are reached by a well-trodden path singularly wild and beautiful. At the Shea Pool huge boulders in numbers are scattered over the bed of the river, which boils and tumbles through them. To gain the points where the salmon lie, rough ladders are laid from rock to rock, and here all your skill is wanted. Where the deep and rapid water gliding past the opposite cliff brightens over a boulder below the surface, your fly dropped deftly just above will do its errand. A long cast, but a certain one—to hook at least; but the current is heavy, and a few yards below the rapids are impassable. The chances are in favor of the fish. Look out—he's hooked. Whirr-r! the reel replies to his salute; whirr-r! he's going down; whirr-r! for heaven's sake, hold!—whirr-r! the strain is off, the line is limp and loose, the fly and half the cast are gone! Several other pools of varied difficulty and beauty comprise the second division, all requiring for a good bag skillful fishing.

The fishing has up to this point been from the east bank of the river. We cross at the Indian, which is fished from a boat lowered inch by inch down the deep current, dark from the shadow of the wooded heights beyond, and our path, straight through the forest to the Upper Pool, cuts off a picturesque angle of the river in which are the Charteris and Eagle pools. The Upper Pool is the finest and largest in the Godbout. In it the best day's salmon fishing ever recorded was made, when Mr. Allan Gilmour some years ago killed forty-six—a score which has since been surpassed by the guardian of the river. During the best part of the season an ordinary daily yield of that pool to an experienced fisherman is from ten to twenty salmon.

Standing about the middle of a gravelly beach, a short way above and behind to your left is a point of massive boulders, round which the water, after rushing tumultuously through a wild and narrow gorge, extends into a basin of comparative quiet and considerable width. Shallow where you stand

as it ripples over the pebbles, it gradually deepens and darkens as it sweeps round the base of the opposite cliffs.

With a short line, from the shallows by your feet you will hook the first fish, and ere the fly, gliding with the stream or dancing among the ripples in gradually extended curves, has reached the full measure of your strength, you will seek a respite as each successive fish is landed, to admire his beauty and smoke with mingled pride and pity a pipe of peace.

Many may be guided, after a few frantic rushes and a wild jump or two, to the eddy above, and readily gaffed; but now and then a fish comes on whose purpose is to fight. With a shoot across, the silk line threatening to cut your fingers like a knife, your rod bending like a withe, and your reel working like a steam engine, for an instant he staggers you; he flashes in the air in defiance, and proclaiming himself a twenty-pounder, drives the barb well in, and, goaded to fury, goes off with a lash of his tail. Give him the butt now strong. The river runs swifter and swifter, and tossed and broken by gigantic rocks two hundred yards below, which you cannot pass. Down, down he goes, and you feel as you tear along that you must soon give up. But he stops among the rocks. What bliss! you rest against a boulder and have him still! Inch by inch you reel in, as, slowly moving round, he nears you. Now your casting-line appears, and now a black tail, cropping up above the surface, slowly moves from side to side. The gaffer feels his gaff and creeps behind a rock; another yard or two—the gaff is over him. Watch! strike! miss! Whirr—the line spins off; he takes the chute—click, another fly is lost! A black spot for an instant marks him in the torrent far beyond your reach.

Fish after fish is added to your score, each attended by its particular incidents; and each evening, ere returning to the camp, you have had no ordinary strain on both mind and muscle.

After a good day's catch there is no prettier sight than the product of each rod ranged upon the grass. Each fish having been first weighed and registered, those for immediate use are set aside, and the rest are carefully prepared and put in barrels.

For about a month the salmon, fresh from the sea, and in fine condition, take the fly pretty freely. After that time they have for the most part run far up the river to their spawning pools. This is a signal for us to leave, and, with a total of 400 fish, of an average of 13 pound, killed from June 15 to July 15, we paddle down to the Cruiser, and steam away from the Godbout for another year." F.

—In a paper contributed to the *Nature*, Sir Joseph Dalton Hooker sketches the comparison which he instituted between the floras of the Rocky Mountains and those of other parts of this continent, as the result of his observations with Dr. Asa Gray in the survey of Colorado and Utah. The region traversed, both on account of its geographical position and topographical characteristics, contained two temperate and two cold or mountain floras; first, a prairie flora, derived from the eastward; second, a so-called desert or saline flora, derived from the west; third, a sub-alpine; and fourth, an alpine flora. He says that the principal regions with which the comparison must first deal are four. Two are mainly humid—first, that of the Atlantic coast west to the Mississippi, with the forest-clad shores of the Western tributaries of that river; second, that of the Pacific slope from the Sierra Nevada to the ocean. Two are inland, namely, that of the northern part of the continent to the Arctic circle, and that of the southern part extending through New Mexico to the Cordillera of Mexico proper. Dr. Gray has treated largely on the contrasts of the two humid divisions; but Sir Joseph hopes that he has now materials for discussing the relations of the dry intermediate regions to these or to the floras of other countries. He concludes that the vegetation of the middle latitudes of the continent resolves itself into three principal meridional floras incomparably more diverse than those of any similar meridians in the Old World, being, in fact, as far as the trees, shrubs, and many genera of herbaceous plants are concerned, absolutely distinct.

THE RECLAMATION OF ALGERIA.—The railway companies of Algeria had, up to June 1, 1870, according to the *Courier d'Oran*, planted on the way from Algiers to Oran, 14,400 fruit trees, 98,900 forest trees, and 344,000 trees of different species, on the open plains and slopes, making in round numbers 457,000 trees. Since then the number has been sextupled; the company estimating the number actually planted by it on the line, as 4,000,000. If to these particular plantations we add those which have been made in the three provinces by the proprietors, large and small, such as of the eucalyptus, the acacia, willow, casuarinas, poplars, etc., we are compelled to believe that in fifteen or twenty years, Algeria will be almost entirely re-deemed.—*La Nature*.

MESSRS. TIFFANY & CO., UNION SQUARE, NEW YORK City, have made extensive preparations for the approaching HOLIDAYS.

Their Stock of Diamonds, Watches, Jewelry, Silverware, Bronzes, Pottery, Stationery and Fancy Articles, is the largest and most varied in this country, and includes novelties from abroad and choice goods of their own manufacture, not to be found elsewhere.

A special department has been organized for sending goods to persons at a distance from New York, and any one known to the house, or naming satisfactory references, can have careful selections sent for inspection.

They have lately published a little pamphlet containing a condensed account of each department, and lists of articles appropriate for presents, which they will send to any address on request.

Piper Heidsieck AND PIPER "SEC."



For Sale Everywhere.

JOHN OSBORN, SON & CO., 45 Beaver street, New York, and 44 St. Sacrament street, Montreal, GENERAL AGENTS.

ESTABLISHED 1820.

C. G. Gunther's Sons,

(LATE 502-504 BROADWAY.)

184 Fifth Avenue,

(Broadway and 23d St.,) NEW YORK.

SEAL-SKIN SACQUES AND WRAPS, FUR-LINED CIRCULARS AND CLOAKS, FUR ROBES, MATS, COLLARS & CLOVES.

ALL IN LARGE ASSORTMENTS AND AT LOW PRICES.

N. B.—Orders by mail or information desired will receive special and prompt attention. Dec13 6t

The New AIR-PISTOL shoots darts and -lugs. Back enamelled six carts, 50 shots, \$1.75. Full Nickel Plate, \$2.50. Sent prepaid on receipt of price. GEO. M. JACOBS & CO., 121 Duane Street, N. Y. Dec13

Sportsmen's Goods.

FLORIDA OUTFITS.

Send 10 cents for illustrated catalogue of SHOOTING, FISHING and CAMPING GOODS, with hints and directions for camping, shooting and fishing Bogardus' rules for glass ball shooting, etc.

TENTS, CAMP STOVES, PORTABLE BOATS, RUBBER GOODS, JACK LAMPS, ETC.

Suits of all kinds, including velvet, corduroy, leather, etc. Also a new style of duck, very soft and pliable.

Fox, Webley, Scott and other breech-loading guns and rifles. Ammunition of all kinds.

SPLIT BAMBOO RODS.

I am able to offer to sportsmen a very superior article in split bamboo rods for fly and bass fishing and trolling. Call and examine them. Every rod warranted. With skeleton reel-bands, \$18; solid reel-bands, \$23, with tip case, extra tip and bag.

These rods have been well tested, and are equal, if not superior, to any in the market.

FLORIDA OUTFITS A SPECIALTY.

A supplement to my illustrated catalogue will be ready this week, containing a number of new articles for sportsmen, including price list of

SKATES.

No sportsman should be without "THE SPORTSMAN'S DIARY AND NOTE-BOOK." Blank Scores for all kinds of shooting. Rules, etc., bound in leather;—a handy size for the pocket. Sent on receipt of 50 cents.

Send no money by mail; remit by draft or P. O. order.

W. HOLBERTON'S SPORTSMEN'S EMPORIUM, P. O. Box 5,169, 102 NASSAU ST., N. Y.

Second-Hand Guns

AND SPORTING GOODS, WHICH CAN BE BOUGHT CHEAP AT

J. F. MARSTERS, 125 NASSAU ST., N. Y.

- One Scott Premier 10-gauge choke-bore, weight 7 lbs., in first-class order, with case, price... \$225
- One Remington Sporting Rifle, made to order, pistol grip, rubber heel to prevent recoil, 44-calibre... 50
- One Hall's 10-bore, 9 lb., pistol-grip, rebounding locks... 70
- One Remington Military Rifle, 1,000-yard range... 15
- One French Double Gun, pin-fire, 16 gauge... 25
- One More & Has es Muzzle-Loader, 10-gauge, 5 1/2 lbs., double gun... 25
- One Hall's Ducking double gun, 8 gauge, 7 1/2 lb... 25
- One Scott Muzzle-Loader, 12 lb., 9-gauge, 34-in... 25
- One Ballard Rifle, 44-cal., 10 lb... 20
- One Colt's Revolving Rifle, 6 shot... 15
- One Maynard Rifle, little the worse for wear... 8
- One Single Muzzle-Loader, 10-gauge, cost \$45... 15
- One Single Breech-Loader, Stephen's make... 10
- One Skeleton Stock Stephen's Rifle, 22-calibre, in case... 12
- One General Fishing Rod, will make up five different rods, German silver-mounted, cost \$40... 20
- One large German silver travelling reel, holds 600 feet line... 10

J. F. MARSTERS, 125 Nassau st., N. Y. Retail price \$900 only \$250. Parlor Organs, price \$340 only \$85. Paper free. Dan'l F. Beatty, Washington, N. J. Dec10

Fishing Tackle.

H. L. LEONARD,

Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty

Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my patent waterproof ferrule, and warranted against imperfections in material and workmanship.

Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancelwood, MADE TO ORDER.

I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods.

MANUFACTORY, BANGOR, MAINE.

A variety of my rods may be found at No. 19 BEAVER ST., New York City (Up Stairs).

Lessons in Fly Tying.

I will guarantee to teach any gentleman the art of dressing flies in a few lessons. Address JOHN HALLY, 320 Henry Street, New York City.

Files tied to order from any pattern. Nov9 1t

# NICHOLS & LEFEVER,

SYRACUSE, N. Y.,  
MANUFACTURERS OF

## Double and Single-Barrel Breech-Loading Shot-Guns and Rifles.

15 our New Illustrated Catalogue, revised for 1878, will be ready to mail on application.



### ACME CLUB SKATE.



The only reliable Self-Fastening Skate ever invented. Can be instantly and firmly attached to any boot. Requires no heel-plates, straps, nor key. Price per pair \$5. Nickel Plated \$6. Sent by Mail, post-paid, on receipt of price, or, by Express C. O. D. Send stamp for illustrated price-list of Skates, Revolvers, Novelties and other Sportsmen's Goods. Trade supplied by  
FISH & SIMPSON, 132 Nassau street, N. Y.

### THE UNITED STATES CARTRIDGE COMPANY,

LOWELL, MASS.  
Manufacturers of the

**CENTRAL FIRE, SOLID HEAD,  
BRASS SHELL, RE-LOADING CARTRIDGE,**  
Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.  
Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.  
**WALLACE & SONS, Agents, N. Y. City.**

## Sportsmen, Attention!

### Keep Your Feet Dry.

H. & A.  
**MAHRENHOLZ.**

The only premium awarded by the Centennial Commission, Philadelphia, 1876, for Alligator Waterproof Boots and Shoes.

Goods sent to all parts of the U. S.  
C. O. D.  
Catalogues containing full instructions for self-measurement sent free on application.  
**503 Broadway, New York.**

## NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.  
**MADE OF BROWN VELVETEEN.**

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have seen it say it is the best yet." Coat, \$6.50. Also the best brown corduroy pants at \$10 per pair. Make only the one grade, as the cheap-est goods do not turn brits and will not give satisfaction.  
Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is the best yet. Coat, \$6.50. For full suit, \$14.00. I also make the sleeveless Coat, Vest with sleeves if desired. Rules for measurement and samples sent upon application.  
**F. L. SHELDON, Rahway, N. J.**  
For Sale by Dealers in GUNS and SPORTSMEN'S SUPPLIES.

### The Kennel.

## Fleas! Fleas! Worms! Worms!

STEADMAN'S FLEA POWDER for DOGS.

A Bane to Fleas—A Boon to Dogs.  
This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.  
Price 50 cents by mail, Postpaid

**ARECA NUT FOR WORMS IN DOGS**  
A CERTAIN REMEDY.  
Put up in boxes containing a dozen powders, with full directions for use.  
Price 50 cents per Box by mail.  
Both the above are recommended by ROD AND GUN and FOREST AND STREAM.

**W. HOLBERTON.**  
102 NASSAU STREET.

### DOGS.

DOCTOR HENRY GARDNER, No. 146 West Third Street, New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ag 2t

FOR YOUNG COCKER SPANIEL STOCK FROM the choicest breeds. Inquire of  
H. P. MCKOON,  
Franklin, Del. Co., N. Y.  
dec28-ly

### The Kennel.

## ST. LOUIS BENCH SHOW

AND  
SPORTSMENS ASSOCIATION,  
St. Louis, Mo.

The first Annual Bench Show and Exhibition of the above Association will be held in St. Louis, Mo., February 19th, 20th, 21st and 22d, 1878.  
Cash prizes, paid in full, \$3,000  
Special prizes, value, \$2,000  
Cash prizes for Kennels of English, Irish and Gordon Setters and Pointers, \$100 each.  
All Setters and Pointers have 1st, 2d and 3d prizes, cash, in open classes, \$30, \$20 and \$10.  
All Setters and Pointers in tree-for-all classes have cash prizes of \$50 each.  
Officers of the Association—President, E. Hayden, Manager American Express Co.; Vice-President, Jos. A. Wherry, wholesale Boots and Shoes; Secretary, John W. Munson; Treasurer, H. S. Brown, of Brown & Hilder, gun dealers.  
Directors—E. C. Sterling, President Hydraulic Press Brick Co.; C. Jeff. Clark, of Clark & Kennet, metal dealers; W. L. Scott, Secretary of Belcher's Sugar Refinery.  
For catalogue and information address JOHN W. MUNSON, Secretary, St. Louis, Mo. Nov29 1t

### EDINA KENNEL.

JESSE SHERWOOD, PROPRIETOR, Edina, Knox County, Mo., breeder and importer of Sporting Dogs. Pointers, setters, spaniels, fox and beagle hounds. "Sancho" Imp. Pointer, stud dog; fee, \$35. See English K. C. S. B., No. 1,005. He is a grandson of the celebrated "Hamlet," No. 836. This dog "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874, three here.

### BALLARD'S FLEA KILLER!

FOR THE  
DESTRUCTION OF FLEAS  
On Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety.  
Contents of a package sufficient to rid half a dozen large dogs of the vermin.  
NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.  
Price 50 Cents per Package.  
Will be sent postage paid on receipt of price-Proprietors,  
LAZELL, MARSH & GARDINER,  
19 19 1t 10 GOLD STREET, NEW YORK.

WANTED—A pure bred beagle hound for stud purposes. Address undersigned, giving pedigree, price, age and full description, J. N. DODGE, 110 Wood avenue, Detroit, Mich. Dec20 1t

WANTED—A well-trained rabbit dog; should prefer a beagle hound. Send address, stating price and age, box 4, Lac mail, N. H. Dec20 1t

ENGLISH SETTER FOR SALE—"Take," orange and white, twenty months old, by Richard "Young Laverack" out his "Dido," (dam of champion "Lark"), handsome and a promising field dog. Price \$55 J. J. SHOTWELL, Tuttle's Corners, Sussex County, N. J. Dec20 1t

FULL-BLOODED—Two Irish setter bitches, four months. Sire of pups, Don, imported from J. C. Cooper, of Limerick, Ireland, by C. H. Turner, Sec. Nat. Kennel Club, St. Louis, Mo.; dam, Countess, by Roudman's Dash. One Gordon bitch, eighteen months old; hunted this fall; staunch on quail and very fast, with good nose; will make a good one. One Gordon bitch eight months old. Full pedigree given with pups. H. B. VONDERSMITH, Lancaster, Pa. Nov29 1t

FOR Irish and native setters, dogs and bitches of all ages, broken and unbroken, address E. J. ROBBINS, Wethersfield, Conn. Oct2

FOR SALE—Three thoroughbred cocker spaniel pups, 2 dogs and 1 bitch, 6 months old, black and white, with black points. Price \$10 apiece, delivered free at my risk. Address C. S., No. 1014 av, Pittsburgh, Pa. Dec3 3t

FOR SALE—A thoroughbred Gordon setter dog pup, eight months old, partly broken, good retriever; price \$10. Address GEO. BAYLES, Rooky Hill, N. J. Dec20 1t

### Wanted.

WANTED—An offer for a Mullin duck gun; nine bore; length of barrels 35 inches; waffle loader. Made for present owner; cost \$200. Warranted in every particular. Can be seen at Genes, Chambers St., N. Y. or can be attached to larger biller; 64 St. Marks Place, New York. Address, Wesley Smith, Nov29 4t

WANTED—A Maynard Creedmoor rifle, or some other target rifle equal to it, in exchange for a half-horse-power steam engine, upright boiler and action, silver-plated and nicely ornamented; rigged with gas valve, or can be attached to larger boiler; engine nearly new; cost \$35, cash. Address Dr. F. MOYER, Lockport, N. Y.

### Wanted.

WANTED a situation by a lad of fourteen in a store or office in New York or Brooklyn. Address S. S., office of FOREST AND STREAM and ROD AND GUN, where references can be had. Dec2 1t

### For Sale.

SECOND-HAND.—A very fine Tolley breech loader, with two sets of barrels fitted to same stock; one pair 10 bore Damascus and very close shooting, other pair laminated steel and cylinder bore; weight, 9 lbs. and 8 1/2 lbs. This gun was made to order for the owner, and is very superior in every respect. Can be examined at gun store of HENRY C. SQUIRES, 1 Cortlandt street, N. Y. Nov1 1t

FOR SALE—An entirely new "Express" shotgun, 12-gauge, made to order by J. D. Dougall, St. James street, London. For details, address P. O. Box 757 Hartford, Conn. Dec15 4t

FOR SALE—One Wm. Moore centre-fire breech-loader, in case complete, 12-gauge, 30 inches, 3 lbs., rebounding locks, pistol grip; cost \$150; in perfect order, price \$75; also Winchester repeating rifle, \$30; one Remington, 50 calibre, \$18; one Fox, 12-gauge, 26 inch barrel, rebounding locks, \$45. W. HOLBERTON, 102 Nassau street, N. Y. Dec20 1t

FOR SALE—Scott T. S. 8 1/2 lb. S. gun; good as new; implements complete, cost \$225, price \$125. Also, Chas. Daly 11 lb. cost \$125, price \$85. Above sold only for want of use. B. V. HOWE, Roseland street, Cambridge, Mass. Dec20 1t

FOR SALE—One Sharps rifle, Creedmoor pattern; and one Nichols & Lefever sporting rifle; both in fine order and nearly new. Address C. H. FOOTER, Fort Henry, N. Y. Dec20 3t

### Hotels and Resorts for Sportsmen.

#### HALSEY HOUSE,

ATLANTICVILLE, LONG ISLAND,  
is nearer New York City than any house bordering on Shinnecock Bay. Is near, and has as good shooting grounds and as experienced attendants (with live game and other decoys, batteries, etc., always on hand); nearer the station; the largest and the best kept house in the bay. L. I. RR. to Atlanticville Station. Fare, \$2. Stage meets all trains. W. F. HALSEY, Owner and Proprietor.  
Atlanticville, L. I., Oct. 29, 1877. Oct25

#### Metropolitan Hotel,

WASHINGTON, D. C.  
**Carrollton Hotel,**  
BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. PATRICKS, N. Y.  
**THE METROPOLITAN**  
is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and re-furnished throughout. The cuisine is perfect; the service regular, and charges moderate.  
**R. B. COLEMAN & CO.**

### Wild Fowl Shooting.

SPRINGVILLE HOUSE OR SPORTSMEN'S RETREAT, SHINNECOCK BAY, L. I.  
By a practical gunner and an old bayman. Has always on hand the best of boats, batteries, etc., with the largest rig of trained wild-geese decoys on the coast. Special attention given by himself to his guests, and satisfaction guaranteed. Address Wm. N. LANE, Good Ground, L. I. Nov5 1t

### Land-locked Salmon Spawn.

The DOBBS CLUB, on the Systadobsis Lake, in Maine, will dispose of from 50,000 to 100,000 LAND-LOCKED SALMON SPAWN if application is seasonably made, before they are too far developed to bear transportation. Many of the females from which this spawn was taken weighed 4 lbs., and the millers quite as large. Price, \$5 per thousand, delivered to Express in Wm. Mass. Apply to CUTLER DOWNER, 26 State St., Boston, Mass. Nov29 4t

#### UNION SQUARE HOTEL,

UNION SQUARE, Corner 15th Street, New York.  
A. J. DAM & SONS, Proprietors.

#### C. M. BRENNAN,

OLD KENTUCKY BOURBON & MONONGAHELA,  
South Clark Street, Chicago.

50 Mixed Cards, with name, for 10c and stamp. Agent's outfit, 10c. ATWATER BROS., Forestville, Conn. Dec13 1m

**E. THOMAS, JR.,**  
GUNS, PISTOLS, SPORTING GOODS,  
174 South Clark Street, Chicago, Ill.

### SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped.  
**F. O. de LUZE,**  
13 South William Street, N. Y., sole Agent.  
For sale in cases of 112 lbs. Special terms to dealers.

FOR SALE, when eight weeks old, six puppies out of my blue belton setter Mill, by Bob Boy. They are black and white. Two of them are black, white and tan, and are almost perfect images of their sire. For particulars, address L. F. WHITMAN, 5 City Hall, Detroit, Mich. 1e23 1t

Gunpowder.

Warren Powder Mills,

MANUFACTURERS OF BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS—Eureka, Continental "Border Rifle," Snap-Shot, and Warren Sporting Cannon and Musket, U.S. Standard. The above can be had of the dealers, or at wholesale at the office, 37 DORRIS STREET, Boston, Mass., and of the agents, JOHN P. LOVELL & SONS, 50 CORNER OF WASHINGTON, CORNHILL and BRATTLE STREETS, Boston, Mass. JY19

LI E

New Dittmar Powder.

THE CHAMPION POWDER OF THE WORLD For off-hand shooting at short and long ranges. Unsurpassed for Cleanliness. Pleasant to shoot on account of little recoil and report. Desirable for hunting on account of little or no smoke. Unexcelled for rapid firing, as it does not foul and heat up the barrel as black powder. Great accuracy, penetration and good pattern. Safer than black powder. Address

CARL DITTMAR, NEPONSET, MASS.

ORIENTAL POWDER MILLS MANUFACTURERS OF ALL KINDS OF GUNPOWDER

Office—13 BROAD STREET, BOSTON.

BRANDS—DIAMOND GRAIN. FALCON DUCKING. WILD FOWL SHOOTING. WESTERN SPORTING. (Oriental Rifle.)

The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES.

J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. Cobb & Wheeler, Agents, 9 State St., Chicago, Ill. C. J. Chapin, Agent, 215 Locust St., St. Louis, Mo. Agencies in the principal cities in the United States.

THE HAZARD POWDER CO. MANUFACTURERS OF GUNPOWDER, Hazard's "Electric Powder."

Nos. 1 (fine) to 6 (coarse). Unsurpassed in point of strength and cleanliness. Packed in square canisters of 1 lb. only.

Hazard's "American Sporting." Nos. 1 (fine) to 6 (coarse). In 1 lb. canisters and 6 1/2 lb. kegs. A fine grain, quick and clean, for upland prairie shooting. Well adapted to shot-guns.

Hazard's "Duck Shooting." Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzle or breech-loaders.

Hazard's "Kentucky Rifle." FFG, FFG, and "Sea Shooting" FG, in kegs of 25, 12 1/2 and 6 1/2 lbs. and cans of 5 lbs. FFG is also packed in 1 and 5 lb. canisters. Burns strong and moist. The FFG and FFG are favorite brands for ordinary sporting, and the "Sea Shooting" FG is the standard rifle powder of the country.

Superior Mining and Blasting Powder. GOVERNMENT CANNON & MUSKET POWDER; ALSO, SPECIAL GRADES FOR EXPORT OF ANY REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER. The above can be had of dealers, or of the Company's Agents in every prominent city, or wholesale at our office.

85 WALL STREET, NEW YORK.

GUNPOWDER

DEAD SHOT, NE PLUS ULTRA, TELEGRAPH, DUCK SHOOTING.

The above celebrated Brands are manufactured by the AMERICAN POWDER CO., 233 State Street, Boston.

GENERAL WESTERN AGENTS

E. B. RAMBO, Chicago, Ill. F. G. GODDARD, St. Louis, Mo. M. BARE & Co., Cincinnati, O. Oct 4

N.Y. Newspaper Mailing Agency

With the latest Improved Newspaper Folding and Mailing Machines, No. 13 Spruce street. JAMES BRADY, Manager and Proprietor,

Sportsmen's Goods.

BOSTON

SHOOTING SUIT.

Manufactured only by

W. SIMMONS & SON, BOSTON.

Each article—coat, trowsers, vest and hat—the name and manufacturer's address stamped upon it, and no suit is genuine without it bears this imprint.

The suit can be sent, securely packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit.

We make no discount except to the trade. We make but one quality, and that is the very best. The price of the suit complete is \$13.

The suit consists of coat, trowsers, vest, and choice of either cap with havelock, or hat.

The material is of the best quality of duck, waterproofed by a patent process. The color is that known as "dead grass shade."

The seams and pocket corners are riveted, and nothing is neglected to make the whole suit complete in every way.

OUR PATENT DECOYS

have entirely superseded the old-fashioned cumbersome, wooden decoys. The birds are hollow, and six of them occupy about the space of one wooden decoy. The Duck Decoys of all kinds are \$12 per dozen: geese, \$3 each; yellow leg, \$4.25 per dozen; black breast plover, \$3.75 per dozen; red breast plover, \$3.75 per dozen; golden plover, \$3.75 per dozen; turnstone, chicken plover, etc., \$3.75 per dozen; sandpipers, \$3.00 per dozen. We are now making standing geese for field shooting.

THE HUNTER'S TENT

is made of tan-colored duck; light, easily transported. Size, 7 ft. by 8 ft. Price, \$10 complete, made on the umbrella principle, folding into a neat roll 3 feet long.

The judges' report at Philadelphia they were commended for excellence in every part. Very novel and practicable; adapted to all out-of-door purposes where lawn, beach, hunters and camp tents are used; quick folding; all sides strongly fortified; enables them to stand against wind and rain. Rev. E. B. Savage, of Albany, N. Y., who camps out in Florida in winter, and the Adirondacks in summer, writes this about the tents:

ALBANY, July 31, 1877.

SIRS—I have just returned from a three-weeks' camping expedition in the Adirondack, and have had the three tents bought of you put to the severest tests of exposure both as to wind and storm, and I do most unhesitatingly say they are the most complete thing of the kind I ever used.

- 1st. They are easily put up or taken down. 2d. They are perfectly waterproof. 3d. They are a good height, and all the room I available.

Our party asked for no better. They were admired by all who saw them, and one party lusted on buying one of ours that was to spare. Rev. Dr. Duryc, of Brooklyn, and the Rev. Dr. Irwin, of Troy, both indorse what I say about your tent. With kind regards, yours truly, F. B. SAVAGE.

Tan-Colored Leather Pliable Waterproof Suits.

In Shooting Coats, Jackets, Breches, Vests and Hats at following prices: Coats, \$22; Breches, \$15; Jackets, \$18; Vests, \$12. These form the most elegant shooting equipment known. They are indestructible.

A recent notice in the FOREST AND STREAM from a correspondent, says:

Whenever a sportsman, or even one who does not claim the distinction, finds a really good and useful article, it is no more than fair that he should let others have the benefit of his knowledge. For this reason we would call attention to the Tan-colored Leather Shooting or Fishing Suits, made by G. W. SIMMONS & SON, of Boston, Mass., the manufacturers of the famous "Boston Shooting Suit."

I saw those goods advertised in your paper, and wrote to the parties for samples. I found the material as soft and pliable as a piece of kid. I tested it by soaking in water twelve hours, and found it as nearly waterproof as one could desire, and after drying was happily surprised to find it had not stiffened in the least. I have since then received a full suit—coat, vest and breeches—ordered by letter from measure taken by myself.

The goods are splendidly made, well lined with flannel; in fact I do not see how they can be improved.

My friends are unanimous in their verdict that G. W. Simmons & Son's leather goods cannot be excelled in quality or beaten in price.

For every kind of sportsmen's goods address

G. W. SIMMONS & SON, Oak Hall, Boston, Mass.

FURS.

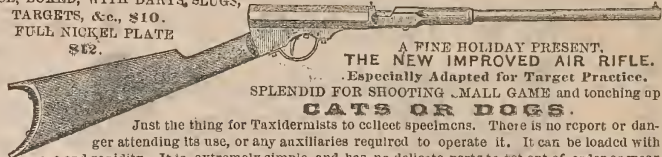
F. BOOSS & BROTHER.

ESTABLISHED 1833.

THE ONLY FUR HOUSE in this city who received at the Centennial Exhibition the HIGHEST AWARD AND DIPLOMA for SEAL SACQUES, FANCY FURS, ROBES, Etc. Our prices this season are 25 PER CENT. LOWER THAN LAST YEAR'S.

449 Broadway and 26 Mercer St., New York. Dec 4

PRICE, BOXED, WITH DARTS, SLUGS, TARGETS, &c., \$10. FULL NICKEL PLATE \$32.



A FINE HOLIDAY PRESENT. THE NEW IMPROVED AIR RIFLE. Especially Adapted for Target Practice. SPLENDID FOR SHOOTING SMALL GAME and tonching up CATS OR DOGS.

Hart's Sportsman's Favorite Metallic Shells. FOR BREECH-LOADING SHOT GUNS.

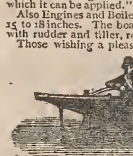
These Shells are easily loaded, and the caps easily extracted from inside. Head solid and much thicker than any Shell now made, giving a solid seat for cone or anvil, which prevents it from driving through or springing a way, thereby causing miss-fires. The Cone is made of muck, and fastened solid in its place. Neither rusts nor corrodes fast. Like movable anvil made from steel, The Nickel Cone also prevents miss-fires when a cap has been left on shell for a few days, which is liable to occur either in steel or iron. These Shells are finely finished, and made any length ordered, from 2 1/2 to 3 1/2 inches.

Shells and Loaders and Descriptive Price-Lists can be obtained from all the leading Sportsmen's Houses G. O. Z. H. H. & CO., Newark, N. J. throughout the country.

FROM CAPTAIN BOGARDUS, CHAMPION WING-SHOT OF AMERICA. MESSRS. GEORGE E. HART & Co.—Gentlemen: The fifty Shells I received from you to-day suit me better than any I have ever used. They are stronger and better in every respect, and I shall use them in all my shooting hereafter. Yours truly, A. H. BOGARDUS.

ESTABLISHED IN 1837.

Consult your interest by sending for our revised and reduced prices.



Excelsior LATEST IMPROVEMENT. Double Feed, including one doz. Saws, thirty suitable Free Sawing Patterns and prepared Wood, to the value of \$1. A new device for tightening Saw, Power Drilling, Hand-cranked, Wrench, Oil Cup and Screw Driver. Speed, 800 strokes per minute. Saw, 1 1/2-inch thick. Price, complete, case and delivered on board cars or at Express office, \$32. Saw only, without attachments, \$5. SMALL STEAM ENGINES. With Copper Boiler, to drive light Lathes, Scroll Saws, etc. Are all sizes from 2 1/2 up to 2 horse power; either plain castings, partly finished, or complete, ready for use. The "Scientific American" of June 19, 1875, says of the above, in an extended editorial, introducing our manufactures to the public "It can turn wringers, churns, washing machines, ice cream freezers, run coffee mills, pump water through a hose, actuate foot lathes, scroll saws or light boring machines, run knitting or sewing machines, turn a grindstone or emery wheel, work ventilating or hand thrashing machine cutters, meat or feed choppers, or sausage machines, drive small blowers for pneumatic dispatch tubes in a building, or for a blacksmith's forge, or compress air or work an air pump on a small scale in a laboratory. These are a few only of the purposes to which it can be applied." Also Engines and Boilers capable of propelling the boats have keel, stem, with rudder and tiller, row locks and cars. These wishing a pleasure boat will find

Buffalo Excelsior Pony Planer and Matcher. Patented March 20, 1875. Best of its kind in use. Price, complete, \$275. Also Planing Machine Knives, which are recommended as superior and extra in quality.

ling boats from 18 to 25 feet long, 4 1/2 to 5 1/2 feet beam, with draft of water stern and rudder post of oak, pine, plank, copper fastened throughout, fitted seats around the boat, lockers and coal bunkers, and have two coats of paint. These the safest and fastest, as they can be made to attract a speed of from 6 to 16 miles per hour. They are adapted to a great variety of uses, such as Excursion, Shooting, Fishing or Pic-Nic Parties, for travelers, voyagers, boatmen and coasters, and especially owing to their light draft of water for exploring expeditions and surveying parties. The Engine and Boiler can be easily detached from the boat, and is then available for Agricultural, Mechanical, Commercial or Domestic requirements or for the use of Amateurs, when power is needed for running light machinery. Price of 20-foot boat, complete. \$425.00 Price of Engine and Boiler, without boat, including driving pulley, 275.00

Illustrated Catalogue containing One Hundred Scroll Work Designs mailed to any address free on receipt of Stamp. GEORGE FARR, BUFFALO, N. Y., U. S. A.

A VICTORIOUS INVENTION The Eagle Claw.

An ingenious device for the purpose of catching all kinds of Animals, Fish and Game. The easy method of setting the Eagle Claw, combined with the simplicity of removing the victim, are among its peculiar advantages.

It is immaterial how to place it when set. It may be buried flat in the ground, suspended from the limb of a tree, or, when occasion requires, covered with grass, leaves or other light material without in any way impairing its certain operation. It is adapted for half of any description, and, when set, no Animal, Fish or Bird that touches the bait can possibly escape. It does not mangle or injure its victims in the slightest degree, nor need they be handled to free them from the trap.

PRICE LIST. No. 1—For fishing and all kinds of small game and animals, sent by mail, 55 cents. No. 2—For catching Mink, Muskrats, Raccoons, large Game, Fish, etc., 75 cents. No. 3, or Rocky Mountain Giant, for catching Bears, Wolves, Foxes, etc. Can be easily set by a boy, and will stoop a train of several hundred pounds. Weight, 10 to 15 lbs., \$10. All goods sent, charges paid, to any address on receipt of price. Address

Stent & Co., Mfr's. Agents, 132 Nassau St., NEW YORK. AGENTS WANTED.

SHARPS' RIFLES---MODEL 1878.

ORDERS FOR THE NEW MILITARY AND LONG-RANGE RIFLE ARE NOW BEING FILLED. SEND FOR ILLUSTRATED PRICE LIST. Sharps' Rifle Co., Bridgeport, Conn. NEW YORK WAREROOMS, 177 BROADWAY.

Publications.

LONG-RANGE RIFLE SHOOTING. A Complete History of the International Long-Range Matches, 1873-1877...

FULLY ILLUSTRATED

BY THE RIFLE EDITOR OF THE "FOREST AND STREAM AND ROD AND GUN."

Published by the Forest and Stream Pub. Co. 1877.

Bound Volumes of Forest and Stream.

EIGHTH VOLUME, NOW READY. First Four Volumes, \$4 each, Others, \$3.50.

A complete set of the FOREST AND STREAM—seven volumes, bound handsomely in cloth—a valuable library for the sportsman—can now be obtained on application to this office.

BINDERS.

Get your fine books bound. Art Journal bound uniform to London publishers' style.

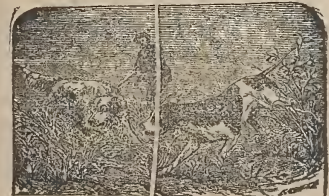
Camp Life in Florida.

By CHARLES HALLOCK, AUTHOR OF THE FISHING TOURIST.

Published by Forest and Stream Publishing Co., No. 111 FULTON STREET, NEW YORK.

And for sale by all booksellers. Sent by mail, postage prepaid, on receipt of price (\$1.50) at office of publication.

FRANK SCHLEY'S AMERICAN



Partridge & Pheasant Shooting.

Describing the Haunts, Habits, and Methods of Hunting and Shooting the American Partridge—Quail, Ruffed Grouse—Pheasants, with directions for handling the gun, shooting the dog, and shooting on the wing. Price, \$2. Liberal discount to the trade.

Frank Schley, Frederick City, Md.

KNOW THYSELF. A new Medical treatise, "The Science of Life, or Self-Preservation, a book for everybody. Price \$1, sent by mail. Fifty original prescriptions, either one of which is worth ten times the price of the book. Gold medal awarded the author. The Boston Herald says: "The Science of Life is, beyond all comparison, the most extraordinary work on Physiology ever published." An Illustrated Pamphlet sent FREE. Address DR. W. H. PARKER, No. 4 Bulfinch Street, Boston, Mass.

HEAL THYSELF

The Southern Guide.

A finely illustrated quarterly periodical, exhibiting the characteristics and resources of the Southern States. One dollar per year; single copies, 25 cents. Published by BRAMHALL & CO., Washington, D. C. Dec 2nd

POULTRY WORLD—A splendidly illustrated monthly, \$1.25 a year. Send 10 cts for a specimen copy. Address POULTRY WORLD, Hartford, Conn. Dec 1st Ex Conn.

Publications.

Sportsman's Gazetteer

AND GENERAL GUIDE, By CHARLES HALLOCK, Editor "Forest and Stream and Rod and Gun."

896 pp., Price \$3.

Tinted Paper, \$4; half-bound mo., \$5.

A complete Dictionary for Sportsmen. Everybody wants it that has a dog, gun or fishing rod. A complete description of all kinds of Game, Fish, etc. Field Sports, Woodcraft, Angling, Fly Tying, Dog, Dog Breeding, Diseases and Treatment, Boating and Boat-building.

Several thousand localities where game and fish are to be found. Nothing of the kind ever before published worth ten times the price.

PUBLISHED BY FOREST & STREAM PUBLISHING CO. 111 Fulton street, New York.

Sportsmen's Routes.

STONINGTON LINE, FOR BOSTON AND ALL POINTS EAST.

Elegant Steamers STONINGTON and NARRAGANSETT leave Pier 33 North River, foot Jay St. at 5:00 P.M. NOT A TRIP MISSED IN SEVEN YEARS.

Tickets for sale at all principal ticket offices. Staterooms secured at offices of Westcott Express Company, and at 363 Broadway, New York, and 333 Washington St., Brooklyn.

PROVIDENCE LINE.

Freight only, steamers leave Pier 37, North River, foot Park Place, at 4:30 P.M. Freight by water taken at lowest rates.

L. W. FILKINS, G. P. Agent. D. S. BABCOCK, Pres.

St. Paul and St. Louis Short Line.

Burlington, C. Rapids & N'rt'h'r'n Railway.

QUICKEST, CHEAPEST AND BEST!

TWO PASSENGER TRAINS EACH WAY DAILY, crossing and connecting with all East and West Lines in Iowa, running through some of the finest hunting grounds in the Northwest for Geese, Ducks, Pinnated and Ruffed Grouse and Quail.

FOR FLORIDA

FOR THROUGH TICKETS TO FERNANDINA JACKSONVILLE, ST. AUGUSTINE, SAN FORD, ENTERPRISE, and intermediate landings on ST. JOHN'S RIVER and interior points in FLORIDA, by steamship to SAVANNAH, and thence by railroad or steamboat, apply to W. M. L. JAMES, General Agent.

Philadelphia and Southern Mail S. S. Co., Pier 22 South Delaware Avenue, Phila.

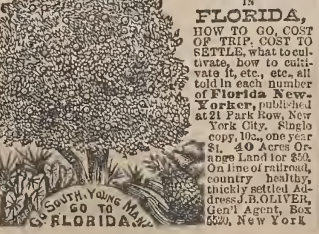
Dec 14-19

"The Bermudas."

NOW A FAVORITE AND DELIGHTFUL WINTER RESORT, is reached in seventy hours from New York, and being surrounded by the warm waters of the Gulf Stream enjoys an equable temperature of about 70 deg.

The elegant British Steamships "Bermuda," and "Oamina," 1,000 tons, fitted expressly for the passenger travel, are dispatched from New York for Bermuda fortnightly, making connection at Bermuda with steamers for St. Thomas and West Indies. For full information apply to A. E. OUTERBRIDGE, Agent, 29 Broadway, N. Y. Dec 21 19.

HOW TO LIVE IN FLORIDA.



FLORIDA, HOW TO GO, COST OF TRIP, COST TO SETTLE, what to cultivate, how to cultivate it, etc., etc. all told in each number of Florida New Yorker, published at 21 Park Row, New York City. Single copy, 10c, one year \$1. 40 Acres Choice Land for \$50. On line railroad, country healthy, nicely settled, address J. OLIVER, Gen'l Agent, Box 5524, New York.

Sportsmen's Routes.

Fall River Line

FOR BOSTON AND ALL POINTS EAST, VIA NEWPORT AND FALL RIVER.

THE MAMMOTH PALACE STEAMSHIPS, BRISTOL AND PROVIDENCE. Leave Pier No. 28, North River, foot of Murray street, daily at 4:30 P. M. (Sundays excepted).

BORDEN & LOVELL, Agents, GEO. L. CONNOR, J. R. KENDRICK, Gen'l Pass. Agt. Sup'l.

NEW YORK AND PHILADELPHIA NEW LINE BOUND BROOK ROUTE, FOR TRENTON AND PHILADELPHIA. COMMENCING NOVEMBER 25, 1877. STATION IN NEW YORK—Foot of Liberty St. N. Y. Leave New York for Trenton and Philadelphia at 6:50, 8, 9:30, 11:30 A. M., 1:30, 3:30, 5:30, 12 P. M., and at 4 P. M. for Trenton.

Tickets for sale at foot of Liberty street, Nos. 523 and 84 Broadway, at all principal hotels, all offices of the Erie Railroad in New York and Brooklyn, and at No. 4 Court street, Brooklyn. Baggage checked from residence to destination. Sept 19 H. P. BALDWIN, Gen. Pass. Agent

GREAT SOUTHERN Freight & Pass'nger Line,

VIA

Charleston S. C.

The South and the Southwest AND THE FLORIDA PORTS, Wednesday and Saturday At 3 o'clock P. M. From Pier 27, N. R.

CITY OF ATLANTA, CHARLESTON, Capt. M. S. Woodhill, Capt. R. W. Lockwood, SANTIAGO DE CUBA, G. W. CLYDE, Capt. S. Crowell, Capt. Ingraham.

The above steamers have been handsomely fitted up for the convenience of passengers, and are unrivalled on the coast for Safety, Speed and Comfort.

Close Connections at Charleston with the favorite and well-known Florida packets, DIGMATOR, Capt. Vogel; CITY POINT, Capt. Scott, for FERNANDINA, JACKSONVILLE, ST. AUGUSTINE, PALATKA, ENTERPRISE, MELONVILLE and all points in Florida.

EXCURSION TICKETS AT REDUCED RATES. Insurance to destination ONE-HALF OF ONE PER CENT. Goods forwarded free of Commission. Passage tickets and Bills of Lading issued and signed at the office of JAMES W. QUINTARD & CO., Agents, Pier 27, N. R., foot Park Place. Office on the wharf. W. P. CLYDE & CO., No. 6 Bowling Green, Through Freight Tariffs, Pass'g Tickets by all routes and to all ports in the South and Southwest, and further information can be obtained at the office of BENTLEY D. HASELL, General Agent, Great Southern Freight Line, 317 Broadway, corner of Thoms street. Oct 11 3m

TO SPORTSMEN:

THE PENNSYLVANIA R.R. CO. Respectfully invite attention to the Superior Facilities

afforded by their lines for reaching most of the TROTTLING PARKS and RACE COURSES in the Middle States. These lines being CONTINUOUS FROM ALL IMPORTANT POINTS, avoid the difficulties and dangers of reshipment, while the excellent cars which run over the smooth steel tracks enable STOCK TO BE TRANSPORTED without failure or injury. The lines of

Pennsylvania Railroad Company also reach the best localities for GUNNING AND FISHING in Pennsylvania and New Jersey. EXCURSION TICKETS are sold at the offices of the Company in all the principal cities to B. LANE, RENOV, BEDFORD, CRESSON, RALSTON, MINNEQUA, and other well-known centers for Trout Fishing, Wing Shooting, and Still Hunting.

Also, to TUCKERTON, BEACH HAVEN, CAPS MARY, SUWANEE, and points on the NEW JERSEY COAST renowned for SALT WATER SPORT AFTER FIN AND FEATHER.

L. P. FARMER, Gen'l Pass. Agent, FRANK THOMSON, Gen'l Manager. Feb 17-77

Old Dominion Line.

The steamers of this Line reach some of the finest waterfowl and upland shooting sections in the country. Connections direct for Catauga, Cobb's Island, and points on the Peninsula. City Point, James' River, Currituck, Florida, and the mountainous country of Virginia, Tennessee, etc. Norfolk Steamers sail Tuesday, Thursday and Saturday. Delaware, Maryland and Potomac Rivers will inform- tion given at office, 107 Greenwich St., New York Dec 25 19

Sportsmen's Routes.

SAVANNAH, CA., ST. AUGUSTINE, FLA., NASSAU, N. P., HAVANA, CUBA.

From Savannah, Ga., to Nassau, N. P., and Havana, Cuba, via St. Augustine, Fla., steamship San Jacinto will sail Jan 1, 15 and 29, and every alternate Tuesday. Connecting steamers leave New York on Dec. 19, Jan. 12 and 26.

FOR NASSAU DIRECT,

Steamship Carondelet, January 2 and February 2, and monthly thereafter from Pier 16, East River, New York. For all particulars, illustrated guide, &c., apply to MURRAY, FERRIS & CO., No. 63 South St.

ONLY DIRECT FLORIDA LINE.

For Fernandina, Fla., Port Royal, S. C., and Brunswick, Ga. Sailing every FRIDAY from Pier 20, E. R., at 3 P. M.

Close connection made with the M. and B. and B. A. Railroads at Brunswick, and the P. & R. R., at Port Royal; also with the steamer Carrie (which has been refurnished), at Fernandina for Jacksonville and the St. John River.

For through rates of freight and passage, apply to G. H. MALLORY & CO., Agents, 153 Maiden Lane, Nov 20 4m NEW YORK.

NEW HAVEN, HARTFORD, SPRINGFIELD, AND THE NORTH.

The first-class steamer ELM CITY leaves Pier 25, East River, daily (Sundays excepted) at 3 P. M. Passengers to North and East at 12 P. M. NIGHT LINE—The CONTINENTAL leaves New York at 11 P. M., arriving in New Haven in time for the early morning trains. Merchandise forwarded by daily express freight train from New Haven through to Massachusetts, Vermont, Western New Hampshire, Northern New York and Canada. Freight received until 5 P. M.

RICHARD PECK, General Agent.

HUNTING

FOR DEER, BEAR, PARTRIDGES, DUCKS, Take the Grand Rapids and Indiana Railroad.

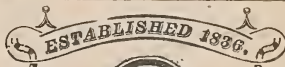
FISHING

FOR NIKE, PICKEREL, BASS, ETC, Follow the G. R. and I.—The "Fishing" Line Time, New York to Grand Rapids, 37 hours.

EXPENSES LOW.

Shooting season expires December 15. For information as to routes, rates and best points for the various kinds of game, etc. Apply to A. B. LEET, Gen. Pass Agent, A. HOPPE, Grand Rapids, Mich. Eastern Agent, 116 Market St., Phila., Pa. Nov 22 19

Sportsmen's Goods.



JEWELERS AND SILVERSMITHS,

HARTFORD, CONNECTICUT, DEALERS IN Diamonds, Silverware, Watches, Jewelry, etc. IMPORTERS OF FRENCH, GERMAN, AND ENGLISH FANCY GOODS. SPECIAL ATTENTION GIVEN TO THE MANUFACTURE OF APPROPRIATE DESIGNS FOR Shooting, Boating, Racing, and other Prizes.

ILLUSTRATED CATALOGUE,

CONTAINING Three Dozen Wood CUTS of the above and other articles in our line, and including the GAME LAWS OF CONNECTICUT, Mailed to any Address, on receipt of 50 CENTS.

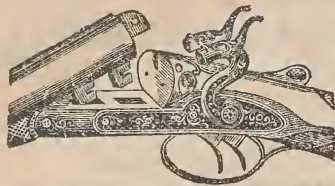
THE WALKING TRICK MOUSE

An amusing, durable India Rubber Toy. Get one and have a good square laugh. Samples by mail 15 cts. Agents wanted. H. E. SUDAN, 201 Ross Street, Brooklyn, (E. D.) Long Island, New York.

CITY AND COUNTY PROPERTY bought, sold and exchanged. C. S. PECK, 5 West Twenty-fifth Street, New York. Sept 25 19

Guns, Rifles, Etc.

THE CHOKE-BORE MATCH.



W. W. GREENER begs to inform his numerous patrons in America that his gun has again come off victorious at the great match of Choke-Bore vs. Cylinder Bore, at the London Gun Club, on May 28, beating seventeen of the best shots in Great Britain who used guns by the best London makers, viz.: Four made by Grant, three by Purdy, three by Douglas, one by Lancaster, Boss and others.

[See London Field, May 26, Editorial Remarks.] "Mr. Cholmondeley Pennell, the winner of Mr. Purdy's massive fifty guinea gun, weighing over 91 lbs., for the highest score, shot wonderfully well, killing all his birds at 30 yards with the first barrel. The gun he used was a full choke, by Greener, of Birmingham. The result of the trial served to show the superiority of the choke at the long range. Mr. Pennell cutting down his birds in a marvelous way with his heavy Greener."

W. W. GREENER,

St. Mary's Works, Birmingham, and 68 Haymarket, London.

Read "Choke-Bore Guns and How to Load," by Cassell, Petter & Galpin, New York.

W. W. Greener's CHOKE-BORE GUNS, Tried on Game in America.

Supplied by H. C. Squires, 1 Cortlandt St. NEW YORK.

See the Following Testimonials:

Six—I a pleasure for me to inform you of my high appreciation of the 10-lb. Greener breech-loader purchased of you last winter. I consider choke-boring, if skillfully done, as the greatest improvement in fowling-pieces since the introduction of the percussion cap. It gives the maker complete control of the pattern, and greatly increases penetration. To prove this, I will give you the performances of this gun. The 32-inch 10-gauge barrels, charged with 4 1/2 drachms of powder and 1 1/2 oz. No. 6 English chilled shot, give patterns ranging from 35 to 30 pellets in 8 1/2-inch circle at 40 yards. The same charge of powder and 1 1/2 oz. No. 4 American shot gives 16 to 17 pellets, with penetration which kills ducks at 50 to 70 yards like a stroke of lightning. It is a characteristic of the choke-bore to show its greatest superiority in the large sized shot. What an amount to say will perhaps surprise you as much as the performance surprised me. On trial of the 12-gauge 28-inch modified choke-bore barrels, with 3 1/2 drachms of powder and 1 1/2 oz. of shot, I got about the same pattern and spread of shot at 25 yards as with the full choke 10-gauge barrels at 40 yards, with tremendous penetration. This is just the performance required of a gun for thick cover, in which you generally find ruffed grouse, woodcock and quail, these birds being killed, with few exceptions, at from 15 to 25 yards.

COL. JOHN BODINE.

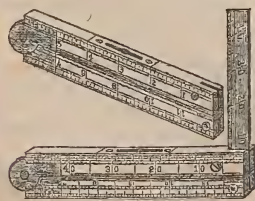
DEAR SIR—The guns arrived all right. We think these last guns you have sent us will place the Greener guns ahead of any other in this country, as guns of other makers don't compare in shooting quail with them. We unhesitatingly recommend the Greener as far superior to any gun of foreign or domestic manufacture that we have seen. We say this after seeing and using guns of all the most celebrated makers. CARLISLE, JONES & CO. ST. PAUL, MINN.

The Greener gun presented by Mr. Squires for the best pointer, and awarded to me, is a close, clean, hard hitter, killing its game at very long distances. It is the second Greener that I have owned and they cannot be beaten. A win with them at the trap or in the field. S. B. DILLBY. LAKE CITY, MINN.

Sir—I have a pair of W. W. Greener's breech-loaders (bought of H. C. Squires, of New York), modified choke-bore. I have had an opportunity to test these weapons on birds heavily loaded, and where great penetration was essential to success. I have repeatedly made long shots, always killing the game clean. At a target both guns made a very even distribution of the shot, with extreme penetration. W. C. FIELD.

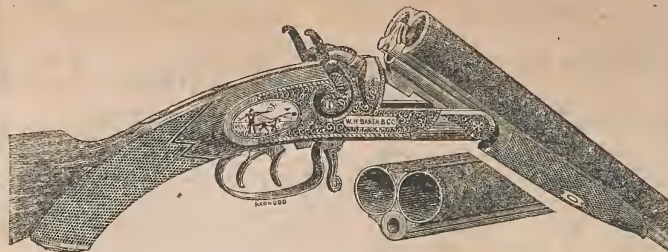
Sir—The Greener breech-loader I purchased of you is very fine indeed, and gives great satisfaction. WARREN, PA. ROBERT DENNISTON.

W. W. GREENER, St. Mary's Works, Birmingham, England.



THIS IS A Foot Rule, Level, Square, Plumb and Inclinator.

It may be used for leveling, squaring, for rest shooting, and gives at once the degree of elevation and pitch to the foot. As a specimen of workmanship, it is faultless, and is strong and durable. So great is our confidence in its merits that we hereby agree to refund its cost in every case where perfect satisfaction is not given. Sent by mail on receipt of \$2.50 STEPHENS & CO., Riverton, Conn. Nov 11 y



Three-Barrelled Breech-Loading Guns, TWO SHOT AND ONE RIFLE.

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

PRICES—Three barrel, \$75 to \$250. Double barrel shot guns. Damascus barrel, \$50 to \$200. Twist barrel, \$35.

W. H. BAKER & CO., Syracuse, New York.

DON'T PASS THIS BY.

STODDARD'S CARTRIDGE-LOADING IMPLEMENT, COMBINING ALL OTHER TOOLS AND FOR ALL SHELLS.

Length, 4 1/2 inches; weight, 10 ounces, and nickel-plated. Price, \$6.

Recommended by FOREST AND STREAM AND ROD AND GUN, Boone, Recapper, Will Wildwood, Ira A. Payne, and others. Liberal discount to the trade. Send postal order to

C. J. STODDARD & CO.,

Lock box 192, Washington, D. C.

IRA A. PAINE'S CHAMPION FILLED GLASS BALL.

PATENTED OCTOBER 23.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the services of that well-known sportsman, IRA A. PAINE, to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell.

We can give the sportsman of America no better proof of the superiority of these balls than that W. & C. Scott & Sons, after examining every ball in the market, have ordered 2,000 to be sent to England. In no instance where it has been exhibited has it failed to take the place of all others.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300. Send for price list. Special inducements to the trade.

HEADQUARTERS BOHEMIAN GLASS WORKS, 214 Pearl Street, N. Y.

PAINE'S PATENT Feather-Filled Glass Balls and Huber Traps.

MESSRS. WILLIAMS & POWELL HAVE ORDERED 30,000 OF THE FORMER, AND FORTY OF THE LATTER. THEY WILL BE SHIPPED FOR ENGLAND ON SATURDAY NEXT. THIS, WITH THE LATE ORDER FROM W. & C. SCOTT & SONS, EFFECTUALLY ESTABLISHES THE SUPERIORITY OF THE

PAINE FILLED BALLS AND THE HUBER TRAPS.

Dec 13 1m

Bogardus' Patent Rough Glass Balls and Glass Ball Traps.



These Traps are the only ones that give satisfaction, as they are simple of construction, easily set, and not liable to get out of order, and they throw the ball in a manner that more closely resembles the flight of a bird than any other trap in the market. The Patent Rough Glass balls are made of uniform weight and thickness, and have a corrugated surface that strengthens the ball for shipment to any part of the country, prevents the glancing of shot, and thereby insures the breaking of the ball when hit.

CAPTAIN BOGARDUS was the first to introduce the ROUGH BALL, and at a price far below the smooth ball at that time. Balls and Trap can be ordered through all Gun Dealers. Liberal discount to the Trade.

THE ROUGH TRAP (warranted), which will throw a ball in any direction from the shooter at the option of the puller, is now ready for the market. Price \$8.

W. & C. SCOTT & SONS have ordered 10,000 balls and 24 traps to be sent to England.

HEADQUARTERS FOR BALLS, HAGGERTY BROS., 10 Platt Street.

Dec 6 1f

FOR TRAPS, GEO. E. HART & CO., Newark, N. J.

Match Against Time--Skill and Endurance.

GILMORE'S GARDEN, NEW YORK CITY, JANUARY 3, 1873.

CAPTAIN A. H. BOGARDUS, Champion Wing Shot of the World, has made a match to break 5,000 Glass Balls in 500 consecutive minutes, loading his own gun. Balls to be sprung from his patent traps. Shooting to commence at 3 o'clock P. M. Dec 4 t

Amusements, Etc.

Zoological Garden.

FAIRMOUNT PARK, PHILADELPHIA. Open every day. A large collection of Living Wild Beasts, Birds and Reptiles. Admission 25 cents; children under twelve, 10 cents. Jan 1 y

THE GREAT NEW YORK AQUARIUM, Broad-

way and 35th street. Open daily from 9 A. M. to 10 P. M. Beautiful Tropical Fishes and Anemones. Wonderful Horned Cow Fishes and Ascidians. Twelve seals, sea lions, 15 sharks, 40 blue fishes, 6 hell-benders, and thousands of other curious marine creatures. Prof. Tomp, marvelous ventriloquist. Miss Lubin in submarine performances. Delightful orchestral concerts. Feeding the animals and fishes and other entertainments.

Guns, Etc.

The Fibre Wad.

Having made recent improvements in cutting and indenting our wads, we can recommend them as being equal to the best imported felt wads.

They will not take fire nor blow to pieces, and will hold the charge securely in metallic shells.

Sample of No. 14 to No. 10 sent for.....25c

Sample of No. 8 and 9 sent for.....30c

DELAWARE CARTRIDGE CO., Wilmington, Del.

C. C. & B. ZETTLER, GUNSMITHS AND RIFLE GALLERY, 207 Bowery, New York.

Sportsmen's Goods.

W. H. HOLABIRD, Manufacturer of

Specialties in Clothing FOR SPORTSMEN, Valparaiso, Ind.

Shooting Suits complete, consisting of Coat, Vest, Pants and Cap, \$10. No. 1 Shooting Coats, waterproof and first-class in every particular, sent by mail, post-paid, \$2.

Holabird's New Game Bag; weighs 12 ounces. The most convenient and coolest garment ever offered to Sportsmen. Can be used in place of a coat; room for 50 shells and 75 snipe or quail; by mail for \$2.

Holabird's New Cartridge Vest, capacity for 500 shells; simple and admirable for boat shooting; \$2.50. Fine Linen, Corduroy and Fustian suits made to order in the neatest and most desirable style. Send 25 cents for my book on Dog Breaking and catalogue of goods. Money refunded if not satisfied.

W. H. HOLABIRD, Valparaiso, Ind.

Ask your gun dealer for Holabird's goods.

1y12 1f

Founded July 4, 1868.



Thos. W. Sparks,

Shot & Bar Lead

MANUFACTURER.

Office 121 Walnut Street, Philadelphia.



GOOD'S OIL TANNED MOCCASINS.

The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine article. Send for illustrated circular. MARTIN S. HUTCHINGS, P. O. Box 363, Dover, N. H. (Successor to EST. GOOD'S).

W. HOLBERTON, 102 Nassau St., N. Y., Agent.

A.S.L.

A SPLENDID OPPORTUNITY TO WIN A FORTUNE. FIRST GRAND DISTRIBUTION, 1873, AT NEW ORLEANS, TUESDAY, JANUARY 8.

Louisiana State Lottery Company.

This institution was regularly incorporated by the Legislature of the State for Educational and Charitable purposes in 1825, with a capital of \$1,000,000, to which it has since added a reserve fund of \$30,000. ITS GRAND SINGLE NUMBER DISTRIBUTIONS will take place monthly. It never scales or postpones. Look at the following scheme.

CAPIAL PRIZE, \$30,000.

100,000 TICKETS AT TWO DOLLARS EACH.

HALF-TICKETS, ONE DOLLAR.

Table with 2 columns: Prize Description and Amount. Includes Capital Prize (\$30,000), 1st Prize (\$10,000), 2nd Prize (\$5,000), 3rd Prize (\$2,500), 4th Prize (\$1,000), 50 Prizes of 500, 100 Prizes of 100, 200 Prizes of 50, 500 Prizes of 20, 1000 Prizes of 10.

APPROXIMATION PRIZES:

9 Approximation Prizes of \$300..... 2,700

9 Approximation Prizes of \$100..... 1,800

9 Approximation Prizes of \$50..... 900

1857 Prizes amount to.....\$110,400

Responsible corresponding agents wanted at all prominent points, to whom a liberally remunerative compensation will be paid.

Write for further information or send orders to

M. A. DAUPHIN,

P. O. Box 692, New Orleans, Louisiana,

or to

B. FRANK MOORE & SON,

317 Broadway, New York City.

SECOND GRAND MONTHLY DRAWING,

TUESDAY, FEBRUARY 13, 1873.

Capital Prize, \$30,000. Tickets, \$2 each; 10 lives, \$1.

Scheme of distribution same as above.

Sportsmen's Headquarters

FOR WINES, LIQUORS AND CIGARS.

Outfit for yachting. The camp or field a specialty. Olives by the case, gallon or bottle.

THOS. LYNCH, IMPORTER,

99 NASSAU ST., Bennett Building, New York.

Sept 17

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year. {  
Ten Cents a Copy.

NEW YORK, THURSDAY, DECEMBER 27, 1877.

Volume 9.—No. 21.  
{No. 111 Fulton St., N. Y.

For Forest and Stream and Rod and Gun.

### Blackbeard.

"A rakish craft fast blows the sea,  
And sails amid the blast;  
Instead of pennant hung aloft,  
The black flag trails the mast."

WHAT an intense but indefinable fascination exists in every breast for the thrilling adventures of the pirate—that Ishmael of the ocean—who, warring against all mankind, is hunted to the death by the armed ships of every nation; his hand against every man and every man's hand against him.

There is a halo of romance thrown around the bold buccaneer, which neither his fearful crimes nor bloody end can dim; for the love of the heroic is strong in every heart, and we can but admire the desperate daring, the superb madness that, counting all cost, nails aloft the black flag, with its skull and cross-bones, and throwing to the breeze this emblem of death and destruction, flaunts a single desperate defiance in the face of the whole world. The exploits of the buccaneers have ever been the favorite theme of the novelist, the traveler and the historian. Infesting the bays, lagoons and creeks of the West Indies, they pounced upon the unfortunate ships that entered these latitudes. And not only did they attack "ships of war," but, increasing in boldness, and combining in strength and numbers, they swept the high seas, carrying war to every land. Like the hardy Norsemen of old, they sacked the towns and cities of the coasts, spreading ruin and destruction wherever they went.

There was the celebrated Morgan, who, like the great Dutchman, Van Tromp, could significantly have placed a broom at his mast-head, for he swept the seas of hostile fleets, and actually stormed, captured, sacked and burned the cities of Panama and Puerto Velo. Again, we have that accomplished and fascinating Frenchman, Capt. Mission, the Claude Duval of the ocean, who united the politeness of a Chesterfield with the ferocity and malignity of the fiend himself. Can we not now call him to the mind's eye, gracefully apologizing in the softest of tones and with the most courteous of bows for the cruel necessity which impelled him to make his despairing prisoners "walk the plank." And yet for the satire of the thing, which afforded him enjoyment, even if no one else could share the joke, he styled himself the Patriot of the Ocean; and instead of the suggestive skull and cross-bones, he carried flying at his fore a white flag with the goddess of liberty inscribed thereon. We read also of Captain Eclamy, who was as merciful to his prisoners as Mission was merciless. He lurked for a long time among the Florida reefs, and after a most eventful career was captured and carried to Jamaica, there to be tried and hung. We have also the famous women pirates, Annie Bonney and Mary Reid, whose lives read like veritable romances, and whose adventures surpass in reality the most improbable recitals of dime literature. These two women excelled the desperate men with whom they were associated both in bravery and cruelty. They were taken and tried in Jamaica in 1728, and, of course, condemned to death, but were afterward reprieved by the Governor, who, in extending pardon, gave that which they little deserved.

Captain Lorother infested the coast of North Carolina for years. There never lived a more callous villain than this man, who issued a proclamation declaring war against the whole world. Meeting a British brig of eighteen guns, he boldly engaged, and after a desperate combat was conquered. Then, surrounded by the remaining few of his crew, he sank with his vessel, his colors flying and guns firing to the last, passing grandly to his death.

Then, too, about the same time, flourished the celebrated Capt. Kidd, who, up and down the Hudson "sailed and sailed," as the old song hath it, putting in sore fright the merchants and shippers, those sturdy old burghers of New Amsterdam. It was at the head of this renowned pirate that the redoubtable Van Twiller, Governor of New York, launched such mighty curses; but the captain, like the dwellers of earth, passed away to another world, and left buried, they said, the bars and ingots of gold and silver and rich treasures captured from the Spanish galleons. But *where?* is the all important question that has never found an answer.

To this day there are strange tales of a ghostly crew seen in the dim, misty light, flitting among the secluded nooks of the Highlands, doomed, in expiation of their many sins, to linger by the treasure they lost their souls to win. And some there are who stoutly maintain that they know the exact spot where all these riches lie, but as they seem never to have been able to profit by the information, their assertions have but little worth, and the secret commands cheap sale.

Of all these rovers of the sea, John Teach, or Blackbeard as he was called, was the most remarkable. His origin is involved in obscurity, but he is believed to have been an Englishman, who joined the buccaneers while comparatively young, soon rising into prominence among those desperadoes by his utter fearlessness and indomitable will, supplemented by great physical strength. The details of his life are unknown until he bloomed into celebrity as the captain of a pirate ship off the coasts of Virginia and North Carolina some time in the early part of 1700. Making many captures and increasing his forces, he commanded two vessels and sailed along the coast from Virginia to New Orleans, in the Gulf of Mexico, and around the West India Islands; and woe to the vessel so unfortunate as to cross his path. Everything of value was at once appropriated, and if any resistance was made a bloody retaliation was exacted. Throughout the whole career of this man were united wonderful incidents, strange escapes, and most bloody, sickening details of crime—indeed his history only shows to what a total depravity and depth of wickedness a man's passions and caprices may sink him when unchecked by law and unbridled by restraint. Blackbeard was most remarkable in that he was the right man in the right place; for this much can be said of him, and truly, that if there ever lived a more bloodthirsty, hardened wretch, history does not tell of him. There never were probably more evil qualities condensed in one man before, and to say this is not to speak too strongly. Cruel, utterly remorseless, ferocious as a tiger, dangerous even in his better moods, terrible when the light of angry passion gleamed from his eyes, he was in verity a devil on earth. He had friends on shore and among the skippers, to whom he gave great quantities of rum and tobacco, but the majority even of these feared him. From the Governor of the Province down to the humble fisherman on the shore, his name was a terror and a dread. Many a childish timid heart has been lushed into terrified, choking silence by the very sound of that name, the fear of him looming over its young life like a great shadow to darken it. "Blackbeard is coming! Blackbeard is coming!" uttered by the lips of thoughtless, selfish mothers, was as potent to hush the wailing cry into suffering stillness as the threat of Black Douglass was to the Scottish children of the olden days.

The smugglers and hucksters of the coast feared and distrusted him; for, though he rarely disturbed them, it being in his interest to keep on good terms with them, yet they never knew what savage impulse might move him, and hence deemed it safer to avoid his dreaded presence.

On one occasion, while cruising off Cape Charles, near Hog's Island, Blackbeard ran down and captured a Virginian vessel, laden with lumber. The ship was of that class of non-combatants whose taking could do him no good, but on the contrary incalculable harm, should the enmity of these sea-faring men be once aroused; for thereafter his hiding-places in the creeks and gulchs would, from mere precautionary measures, be conveyed to the naval vessels already on the search for him, and so his death or capture become a matter of absolute certainty, and that without much loss of time. Well, Captain Dory, of the schooner *Seafowl*, as the old chronicles tell us, was sailing placidly along with just-enough wind to fill her sails, the steersman keeping the helm straight by a slight touch of his hand, the while the brouzed old master sat at the prow and watched the pirate craft tacking toward him. Did there pass through the brain of the honest "toller of the sea" who earned his bread so hardly, an envious wish for the gain of the man winning an easy, reckless livelihood with such facility? Or was he thinking, in his rectitude and peace of mind "that the way of the transgressor is hard," and that the balances sooner or latter are adjusted with an even hand? Be that as it may, his deep meditations were suddenly broken by a hail from Blackbeard to "heave to." The helm was put down, the foresheet hauled to windward, and the schooner drifted idly on the water.

From the pirate's vessel a boat was lowered and in it lightly dropped some six men besides himself. A few strokes of the oars and Blackbeard stood on deck. The skipper believed the captain wanted information and had no fears, but he was soon undeceived. Blackbeard had but recently captured a brig from Bordeaux, bound north with a cargo of wine and tropical fruit, the former of which he transferred to his own ship. The affrighted captain was generously permitted to continue his voyage, bereft of his treasure to be sure, but with his life safe, and what will a man not give for his life? Blackbeard, on the high seas, always kept his men in order; but once within his haunts he allowed them the wildest license and surpassed them in all their excesses. On this occasion he was in one of his maddest moods, but as jovially inclined as he was intoxicated. This the skipper perceived as soon as the dangerous visitor touched his deck, and most heartily did he wish him away. But his guest ordered his men to bring on deck a cask of rum and claret, as was done. Then filling an immense silver punch bowl to the brim, tendered it to the skipper. The invitation was accepted, and a moderate amount partaken of. But on handing back the bowl, Blackbeard commanded him to drink *all*. The man demurred, upon which the pirate declared with a mighty oath that the last drop should be drained. A point blank refusal was the answer, and here this bold buccaneer jerked out his pistol and, cocking it, placed the cold muzzle to the forehead of the man, giving him, with another deep curse, his choice to "drink or die." In this day many a man would rather have enjoyed the dilemma—for they drink till they can hold no more—drink and die; but the old skipper, it seems, liked moderation only second to his life. But his life was the dearer, and so he drained the flowing bowl, even to the last drop; and if the fumes at last mounted rapidly to his brain, was it any wonder? And can we not stop to drop a tear of pity over his prostrate head, inasmuch as he was the first and last man who ever became intoxicated on compulsion! Blackbeard was in a generous mood, and insisted on the whole crew drinking till they lost their senses; nay, he found the wife of the skipper in the cabin and actually made *her* share the contents of his tankard. Then this hospitable pirate left, laughing until his thick beard quivered and his huge sides shook. And as he sailed away, the bacchanalian shouts, the drunken laughter, the mad revelry of the schooner's crew floated wildly over the peaceful water.

This was Blackbeard in his merriest moments. But some of his drunken caprices surpassed in devilry even his cool ferocity.

One night, after a successful marauding excursion along the coast, he invited the pilot, the sailing master of a schooner, and some of his own crew to take supper with him. After the substantial was cleared away and the debauch begun, and Blackbeard with his splendid voice had sung a sea song, all hands joining in the chorus, the mirth waxing fast and furious as the potatoes became deeper, he slyly drew a pair of pistols and discharged them at random beneath the table. One bullet entered the floor, but Hanks, his sailing master, was shot in the knee and lamed for life. When asked what motive prompted the deed, he replied by cursing them, and said if he did not shoot one of them occasionally they would forget who he was and cease to fear him.

But now, to describe this redoubtable buccaneer, and fortunately history and local tradition have preserved his likeness and physique complete.

John Teach was over six feet in height, as straight, too, as an arrow, with the frame of the Farnese Hercules. He always claimed to be of a gentle descent, and would point in proof thereof to his small ears and hands, of which, by the way, he was inordinately vain. Be that as it may, he was a striking, but savage-looking man, with a winning tongue when he chose to use it, and one that talked away the heart of many a poor trusting woman; for it is worthy of observation that the weaker sex care less about a man's character or antecedents than they should, provided he can charm or amuse them.

*Woman's Parentthesis.*—(They will be very apt to believe every word that proceeds out of his month, and take his own version of himself and his past against the verdict of the world; and we know very certainly a man is apt to say favorable things of himself, especially to a woman whose admiration he seeks.)

Marian Holcombe in "The Woman in White," when she speaks of Count Fosco, makes this admission in her diary: "A woman can withstand a man's devotion, a man's wealth, and a man's beauty, but no woman can withstand a man's tongue when he knows how to talk to her."

Shakespeare makes Valentine say:

"I told him no man,  
If with his tongue he cannot win a woman."

At any rate Blackbeard was a Lothario and had a wife, and any number of sweethearts in every port. The beard which gained him his *soubriquet* was indeed extraordinary. It grew beneath his eyes and was blue black in hue, thick, bushy, and of an extravagant length. His favorite mode of wearing it was in small plaits in which were interwoven different colored ribbons, after the manner of the old Rameles wigs. On his courting expeditions, and when he attended festivities on shore, he wore a cocked hat with red plume, blue frock coat with silver buttons, velvet waistcoat, shorts, and shoes with diamond buckles. His hands were covered with rings, set with jewels of great value; a gold mounted sword hung from a handsome belt, and completed this remarkable costume. In time of action he carried, slung over his shoulder, three brace of pistols hanging in their holsters and a cutlass of great weight unsheathed in his hand. To add to the picture, he stuck lighted matches under his hat which reflected weird light on his face. His eyes were brown and gleamed like fire when he was excited. Altogether, it was such a figure that which imagination could not form an idea to look more frightful. He spent much time on shore, and was there for more welcome than among his crew, for he was obliged to curb his bloodthirsty propensities to a great extent, and besides scattered his gold with a lavish hand among the peasants and farmers of the provinces, with whom he mingled freely. His was rather the Claude Melnotte style among the women he visited, and of whose society he was ever fond, lavishing upon them a large portion of his ill-gotten gains. And Artemus Ward would call him now "a mucky married man," for his legal alliances only numbered twenty-two. These poor, deceived women, fascinated by his prowess, his winning address and lavish generosity, married him in all good faith, and were most respectable people. From New Orleans to Norfolk he would sail, visiting his many wives, but keeping such news of his unfaithfulness a profound secret from each unsuspecting spouse. How this was managed will ever be a matter of wonder, evincing, as it does, a tact and strategy most remarkable. Never to have aroused the suspicion or jealousy of so many women—to have made each one believe herself to be the one, opens up such vistas of deceit, diplomacy, cunning and falsehood as almost to pass comprehension. It is a singular fact that some of the proudest families of Virginia own Blackbeard's name as entitled to a place on their family tree, and the pirate's blood to-day mingles in the veins of many of her purest aristocracy.

Every villain has some redeeming trait; few are wholly bad. Our pirate—like Conrad the Corsair—had his "one virtue to a thousand crimes." Never was he known to break his word when he swore "by his beard"; that oath was inviolate. In this he followed the ancients, it seems. Their beards were worn long and flowing, and were considered symbols of wisdom and philosophy. To swear by one's beard was to give the deepest possible pledge of veracity; and to pluck a man by his beard was the greatest indignity that could be offered. Not for the same high motive as the old Greek philosophers did Blackbeard tend his own so graciously, and make it the foundation of a truthful oath. He was inordinately vain of it, and cared more for its awe-inspiring effects than for anything else on earth.

"His whiskered muzzle looked so wondrous grim,  
His very shadow was afraid of him."

And hence, as if his strength lay, Sampson-like, in those fowling locks, he made them the only faith he had—"by my beard!"

Among the brotherhood of pirates it has ever been the unwritten law that the greatest hero is he who performs the most cruel and desperate deeds. Blackbeard leads the van unrivalled. He so played upon the fears and superstitions of his own men that they devoutly believed his familiar consort was no other than his Satanic Majesty. They averred again and again that a strange person could be seen in the captain's cabin, who would come and depart at will when they were hundreds of miles at sea, and that it was the self same Satan, whom, it seems, they feared only second to their master.

On one occasion, when anchored near shore, Blackbeard, thinking that his men were becoming too familiar, requested that they should try and make a purgatory of their own (to express it mildly) and see how long they could bear it. Accordingly several of his crew went with him into the hold of his vessel, closed up the hatches tightly, and setting on fire several pots of brimstone, waited amid the horrible fumes to see which had the most endurance. At last the men became exhausted, and crying out for air, crept out nearly dead. But Blackbeard sprang on deck, laughing loudly and saying with horrible blasphemy that those lower regions would suit him hereafter better than any other place.

And in this way this pirate lived—cruising the sea, taking with high hand what he wanted, dealing death to one and all without delay were the least resistance offered. For years he carried on this nefarious trade, robbing, burning and murdering until retribution seemed a myth. Many armed ships were sent to take him, but retreating to the coasts, and hiding in among the tortuous inlets and channels, he would lie concealed till all danger was past. Besides, Blackbeard had numerous friends who gave him timely warning of foes, and among these was no less a personage than Gov. Eden, of North Carolina. It was suspected that he shared much of the pirate's plunder: be that as it may, he was certainly leagueed with him, and aided him in every manner.

Time passed and the buccaner grew more and more overbearing. Continued success blinded him to caution, and soon he commenced to oppress the small traders and skippers along the coast, and permitted his men to plunder at will the plantations and farms that lined the shores. The consequences of this could have been easily foreseen. From being quasi-friends these oppressed people, losing patience at last, became bitter enemies. Finally, when the continued exactions of this robber threatened their ruin, they sent a delegation to Gov. Spotswood, of Virginia, setting forth their grievances and imploring aid. To insure his capture they declared themselves able to reveal his hidden haunts. The governor promised, as soon as might be practicable, to grant their prayer.

In the meanwhile Blackbeard started on an important expedition, and instead of stealing along the coast as was his wont, put boldly to sea. On reaching the mouth of Charleston Harbor, he sailed defiantly up and dropped anchor in front of the city. In fact he captured the place, but only demanded a chest of medicine of the governor, who, glad, doubtless, to get off on such easy terms, readily acceded to the request.

Blackbeard then levied contributions upon the shipping in the harbor, which amounted to fifteen hundred pounds, and as much wine and as many provisions as he could conveniently stow away. Then with his money, his wine, his medicine and his stores, he complacently sailed away and left the plundered to their own saddened reflections.

Turning his vessel's prow homeward, he stopped at Newbern, and as a matter of idle form, surrendered himself to Gov. Eden, who promptly gave him a full pardon. After this the pirate roamed through the interior of the State, and spent his ill-gotten gains with a lavish hand. He won the heart of a beautiful young girl, only sixteen years of age, while on this trip, and married her, the governor performing the ceremony. After a very short honeymoon, he treated her barbarously, and spent his time in the maddest debauchery. When his money was gone and he had become satiated with pleasure, which did not take long, we may be sure, he joined his vessel, lying the while in the sound, under command of his lieutenant, and sailed for the West India Islands. When near Porto Rico he fell in with a French Gunneymen, and captured her, with an exceedingly rich cargo. Then, with his own crew transferred to her, he mounted her with forty guns and made her his own consort under the name of "The Queen Annie's Revenge." Cruising off the islands thus reinforced, he captured a large vessel, which he plundered and burned. As the crew made no resistance, he landed them without killing any of their number. A few days after this, the British man-of-war, "Scarborough," of thirty guns, caught up with Blackbeard, and a lively fight was the consequence. But so well did the outlaw manoeuvre and handle his guns that the "Scarborough" retired from the conflict, with her hull battered in and many of her crew killed and wounded.

After these exploits, Blackbeard sailed for his hiding-place. More than ever was he led away by his overweening vanity to believe himself unconquerable and to defy all consequences; more than ever did he plunder and oppress all with whom he was thrown; more deeply did he steep his brains in the maddening fumes of liquor. But the end of this bad man was approaching. Outraged justice was about to exact her toll at last. The finger had traced the hand-writing on the wall. The sands of his life, though little he dreamed it, were nearly run.

The Governor of Virginia had not been unmindful of his promise, and when he heard from many sources of Blackbeard's return and increased excesses, he offered a reward of two hundred pounds, and in a proclamation urged that one and all should try and capture this lawless, bloody freebooter.

There happened to be two British men-of-war anchored at this time in James River—the Pearl and the Lime—the men of whom this appeal came with all that force and elation which exciting activity and hope of reward invariably bestows. Lying in the stream and swinging with the tide was not pleasant to the men who had breathed the air that blew over the ocean and tossed his grand old waters mountain high; who had felt every timber in the vessel strain with the resistless pressure, as under their handling the sails caught the wind and dashed her through the waves with the wild free liberty of a bird of air. To these men, therefore, the capture of Blackbeard had a resistless attraction. They gladly entered into a compact with the governor, he on his part to furnish two sloops and they to volunteer to man them, Lieut. Maynard, of the Pearl, to command the party.

Maynard was a fit leader. Brave as a lion, and withal as handsome as he was brave. I have before me a letter all yellow with age, written in 1720 by the daughter of a noted Member of the House of Burgesses in Williamsburg; and this lady, who was a reigning belle, they say, writes that "the handsome and gallant Lieut. Maynard was the most observed of all at the governor's reception, and that his large brown eyes were as soft as a dove's and his voice as low and gentle as a woman's."

Yes, Robert Maynard, of the Pearl, was undoubtedly the right man for the dangerous task he was about to assume. To hunt Blackbeard in his chosen fastnesses was to court death. To lead the van of a forlorn hope could hardly have been more desperate, and fearless must have been the heart and firm the determination, and cool the brain that counted the cost, cast up the danger and yet went forth "to do or die" unflinchingly.

The sloops were soon ready and were well manned by a picked crew from both vessels. Small arms and ammunition were furnished, but no guns were mounted. All being in readiness, the governor then convened an extra session of the Assembly, and it was resolved to issue a proclamation. The curious old pronunciatore reads thus:

#### PROCLAMATION.

"That any person or persons who shall, after the 14th day of November, 1719, take any pirates on sea or land between the degrees of 34 or 39 of N. L., within one hundred leagues of the continent of Virginia or within the province of Virginia or North Carolina, upon conviction or upon due proof of the killing of all and every such pirate before the governor, shall be entitled to have and receive out of the public money at the hands of the treasurer of this colony the several rewards following:

"For Edward Teach, called Blackbeard, *One Hundred Pounds*; for any other commander of a private ship, *Forty Pounds*; for every master or inferior officer, *fifteen pounds*; and for every private man or common sailor taken on board each sloop or ship, ten pounds.

"Given at the Council Chamber at Williamsburg, the 24th day of November, 1718, in the 5th year of His Majesty's reign. God save the king! SPORTSWOOD."

(To be Continued.)

#### SPLIT BAMBOO RODS.

To our customers and the public:—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

—The celebrated racing mare Flora Temple died last Friday at the good old age of thirty-three years.

FALL RIVER, REDUCTION OF FARE.—This fine line of steamers between New York and Boston have reduced their fare. The figures are now \$3 from New York to Boston, and to go and return, \$5. See advertisement.

## Natural History.

### ECONOMICAL APPLICATIONS OF REPTILES.

MR. P. L. SIMONS, in a communication to the Society of Arts in London, calls attention to the extent to which reptiles are used in supplying the needs or luxuries of mankind. Beginning with the tortoises, he remarks that the flesh of nearly all the species is eaten, especially in the United States, where the Florida gopher, the land tortoise, the box tortoise and especially the terrapins are highly prized articles of food. To these he might add the employment of the snapping turtle, which, when properly dressed, is equal in flavor and tenderness to any of the species.

The green turtle is used very largely wherever it occurs, and is carried in great numbers from the tropical or semi-tropical seas to other regions, notably to the United States and Great Britain.

Mr. Simons refers to a manufactory at Key West in Florida which puts up 200,000 pounds annually for exportation, and employs ten vessels and sixty men in collecting the turtles, this supply being sent chiefly to England and Cuba.

There are establishments at Jamaica for canning and similar preparations of the turtle, including the fat, calipee and gelatinous portion of the fins. 5,484 pounds of prepared turtle were shipped from Jamaica in 1874. The turtles of the Bay of Honduras are esteemed in England as the best brought to that market. Jamaica is the shipping point, the turtles being brought there from the shores of the Gulf of Mexico, from Trinidad, Vera Cruz, Honduras and the Tortugas.

The eggs of the sea tortoises or turtles are said to be very nutritious. Several thousand persons are engaged in the season in collecting eggs of the Orinoco and Amazon turtles, and manufacturing from them a rich oil.

Another economical product which is derived from turtles is tortoise shell, of which an average of twenty-five tons is annually worked up in Great Britain.

Among the Saurians or lizard family the alligator and crocodile are the most important, the skins of many species being tanned and converted into excellent material for horse trappings, boots, shoes, &c. The flesh and eggs are also eaten in many parts of the world. In Central America the musk is extracted and used in perfumery, and the teeth, as also in North America, are carved into ornamental objects, and the oil is of considerable value in the arts.

The eggs of the iguanas and other large lizards are very highly esteemed as food. Their flesh, too, is very palatable being destitute of that highly musky odor that renders that of the alligator so offensive to some persons.

Serpents are largely used for food, the flesh of the land species, especially, being white, tender and well tasted. The larger snakes, such as the anacondas, furnish an excellent variety of leather, which is used both for shoes, trappings and for covering sword sheaths and instrument cases.

### THE BLACK OR COW BIRDS.

Mr. Editor—In a recent issue of your paper I observed an article (I think taken from a Pennsylvania paper), in which the writer is at a loss to account for vast numbers of black or cow birds (?) occupying as a roost a certain cemetery and flying from said roost in a given direction every morning.

Your answer that "there is probably winter wheat in the direction of their flight" is more than probable—that there is food in that direction in sufficient quantities, so long as it may last for their requirements, is beyond question. This thing of food fetches to Houston city, Texas (the second city in the State), large numbers of these little fellows, who may be seen at any time hopping nimbly around in the middle of the main thoroughfares and gutters, busily engaged in filling their crops; and it is said to the credit of the little genus of the "Bayon City," the writer never saw or heard of any one of them molesting the birds in the slightest degree. Often these birds may be seen perched upon the back of the oxen attached to the long cotton trains, and upon the drag-horses—where in perfect contentment they seem to enjoy city life to the full. This was at any rate the case in 1861-'2, and I am confident is yet the case.

With regard to the cemetery part of the business, what better place could be desired for these birds? retired, quiet—the very place of all others where these little rascals can sleep through the long hours of the night, or else, with their heads tucked beneath their wings, reflect at their leisure upon the mortality of all flesh! The question could have been answered, however, as a little negro answered a gentleman's question with regard to a flock of domestic ducks which the gentleman came across in a quiet part of the road, far from any habitation. Gentleman, colloquially half aloud: "I wonder whose ducks those are?" Little negro, in the corner of the fence (who was unperceived by the traveler) "De's de own ducks, de is; and de go whar de choose, de do." So with the birds: de's de own birds. BIRD SHOT.

New Teyman's Store, Spottsylvania Co., Va., Nov. 27, 1877.

### PECULIAR PLUMAGE OF QUAIL.

SCHUYLKILL HAVEN, Pa., Dec. 8, 1877.

EDITOR FOREST AND STREAM:

SH—While on a gunning trip thirty miles west of Harrisburg, Pa., I came across a flock of birds about fourteen in number, one of which was shot and resembled our quail or partridge in shape of body, but not in color. It was not so brown, more of a drab with shorter and rather thicker legs, and shorter and rather yellowish toes. Each side of head white and extending nearly over the top of head, leaving but a small strip of dove color on top of head. Tips of each wing white (just joint). Plumage very soft. Can you tell me what it was. G. B. FEARL.

[We have to thank Mr. Penle for his letter, but we hardly think the birds he mentions are a new variety. Similar birds were shown us by Mr. John Sutherland this week in New York. The plumage was much lighter, perhaps as much as two shades lighter; but these differences were so slight as

hardly to be worthy of more than a passing notice. A letter already published from Judge Everts, where he describes the migratory quail, will be found to be of interest.]

**THOSE QUAIL NOT ALL GONE TO SEA.**—The following communication contains good news for those who are watching with interest the result of the migratory quail experiment. Let us hope for still further reports of an equally gratifying nature:

SAVANNAH, Ga., Dec. 10, 1877.

Mr. Editor—Let your friends, Judge Everts, of Vermont, and Mr. Hapgood, of Boston, take heart. Their European quail have not all gone to sea. They are here in considerable numbers. I have, on three several occasions, found them during my shooting excursions in this vicinity. The first time I noticed them was about the 15th of November, when I shot one before I observed that it was not a native bird. I recognized it at once as a true "*Coturnix communis*," being perfectly familiar with that bird, as I have often shot them in Egypt as well as in the south of France and in Africa. Two or three days later I saw them again, and at such a distance from where I saw them at first as to preclude, in all probability, the idea that it was the same bevy. I am well convinced that there are at least three beves of the birds safe from the perils of the sea.

I congratulate the sportsmen of the country upon the apparently successful introduction of this rare game bird to America, and especially do I congratulate the public spirited and liberal gentlemen who inaugurated and so ably worked out the scheme of their importation. That they will return north with the spring, I have, from my intimate knowledge of their habits, no doubt whatever. So let us have peace. Very truly yours,  
JOHN A. READY.

**MANGOIKE, Richmond County, Va., Dec. 17, 1877.**—Having made a special study of the migrations of birds, I have been much interested, both as a sportsman and ornithologist, in the introduction of quail (*Coturnix communis*) into America, and recognized at once "Virginia's" description as applying to these birds. Although Mr. Everts is hopeful, Mr. Hapgood seems rather despondent in regard to the chances of their birds ever being seen again in New England. The occurrence of birds alighting on vessels far at sea is a common one, many land birds flying over the water in migrating, and I should consider the fact of so many quails being seen both at sea and ashore, during migration, encouraging rather than otherwise. In firm belief, I predict their appearance next spring at their breeding places of this year, and hope to see their arrival heralded in F. AND S.  
EVERETT SMITH.

**ARE THE PRAIRIE CHICKENS GOING TO CALIFORNIA?**—A very curious fact is brought before us in regard to a movement of the prairie chickens. If it be true, and the authority which calls the circumstances to our notice seems worthy of credence, it illustrates something quite remarkable in the history of our game birds. In California the absence of prairie chickens had been long known. Some years ago efforts were made to introduce them, but apparently without success. Now it seems that of their own accord this bird, the true *Cupidonia cupido*, has made its way into Northeastern California. Starting from the Nebraska plains, the prairie chickens, whether driven by hunters or otherwise, have followed the track of the railroad. We may state that the first reports of the presence of this bird in California was received with doubt, but as their appearance has been noted year after year more to the westward, at present it looks as if a migration were possible. The San Francisco *Chronicle* of last month says that naturalists and hunters announce the existence of the prairie chicken in California, not to be confounded with the sharp-tailed grouse which was already known to live there. The prairie chicken is said to be found to-day in the Shasta Valley, in Battle Mountain and Winnemucca. We await further developments. Still the bird is one so easily recognized that we hardly think a mistake can have been made in regard to it. If the report be then true it shows the possibility of these birds taking up an entirely new habitat. The reason for this change of habitation may be due somewhat to the aggressive warfare waged on them for years. The history of the bird, and of its movements are worthy of thorough study. It is well known that in early times Long Island abounded with the *Cupidonia cupido*. We should be very glad if some of our friends on the Pacific side would send us a specimen for examination.

**JACK-SNIPE IN COLORADO.**—A parallel to the introduction of pinnated grouse into California is found in the migration of jack-snipe into Colorado:

**EDITOR FOREST AND STREAM:**  
In a recent communication to your columns from Colorado, I noticed the statement of a very successful sportsman that he had never found jack-snipe in the State, and he seemed to doubt their presence. In the last week of September, this year, I was coming in over the Boulder Valley Railroad, when within about thirty miles of Denver we picked up Col. F. F. Griffin, superintendent of the road, who had two dozen jack-snipe in his bag that he had shot that afternoon in two or three stubble fields along the track. During October he made three other visits to the same range, and killed respectively thirty-nine, twenty-eight and nineteen of the same birds. Upon one of these occasions he was accompanied by Col. Potter, master of way on the K. P. road, who also got a good number of birds, though just how many I am unable to say. The jack-snipe has come in since the settlement and cultivation of the country, and may be found in all the agricultural valleys at certain seasons.  
DENVER, Colorado, Dec. 12, 1877.

**BITE OF THE SKUNK.**

TRIPACA, N. Y., Dec. 13, 1877.

**EDITOR FOREST AND STREAM:**  
I see by the last number of F. and S. that the bite of the skunk (*M. vis americana*) is fatal; consequently, I must consider myself a dead man, but yet wandering in spirit upon this earth. Some six or eight years ago, I had some "twit'ch up" snares set in a locality where skunks were very abundant. One morning I found a skunk suspended in one

of them; the noose was slipped quite tightly around him just forward of the hind quarters. A friend with no assured me that the animal could not dispense his essential quality while in that position, and so after a few preliminary experiments we approached him. While stroking him on the side he suddenly turned his head and seized one of my fingers, two of his canine teeth making quite deep wounds, especially as I snatched my hand away quickly. The wound caused me no pain and soon healed. A bite from a wounded gray squirrel which I received only a short time afterwards in the same finger led to much more serious results.  
R. T. M.

[We are much obliged to our correspondent for the information, and glad to know that he is yet alive. We must differ from him, however, in his comprehension of the article on skunk bites, for, like him, we do not believe that skunk bites are at all dangerous, and we doubted the authority of Col. Dodge who stated that no man ever lived after having been bitten by a skunk in Dacotah.—Ed.]

**AN ILL TO WHICH SQUIRREL FLESH IS HEIR.**

BUFFALO, N. Y., Nov. 26, 1877.

**HUNTERS** are still much at loggerheads in reference to the noticed absence of testicles in the black squirrel. Since the pugna-red squirrel is often seen chasing its much larger congener from tree to tree, the wild hypothesis has gained firm ground that the testicles of the former are its point of attack. There is no need paid to the analogous cases of jay and crow among the feathered tribe, when pursuing the much larger and powerful hawk or owl; it is sufficient to observe an obvious effect to make a hasty deduction, which lacks the force of accurate and exhaustive observation.

The neighborhood of St. Thomas, Ontario, has been, during the last month, the Mecca of all squirrel hunters from near and afar. Several small parties have succeeded in bagging, in a few days' hunt, as many as 600 heads; and it has been ascertained by special request, that fully one-third of the animals were devoid of testicles, without, however, giving from their appearance any evidence of injuries received externally. In all of the cases there was simply an absence of the organs noticeable, but no wound or ulceration of any kind.

By referring the problem of these cases recently examined, to Prof. Grote, the Director of the Buffalo Society of Natural Sciences, we learn from this accurate and clear-headed observer that, according to fortunate observation on the part of the late Mr. Fitch, of Albany, an insect, not a co-elliptic mammal, is the true cause of this mysterious phenomenon. It appears that Mr. Fitch succeeded in discovering, during his frequent examinations, a white larva of some hemipterous insect, which he placed carefully in a vessel containing loose soil, to facilitate its transformation into the pupa state. This was accomplished in a few days, and shortly after, a then undescribed species of bot-fly, named the *Postus emasculator*, made its fully-developed appearance. The surprise could not be extreme, as the larva of this family are in the habit of burrowing under the skin of the ox and other ruminants, which are thereby afflicted with the peculiar sores so well known to all herdsmen. It is supposed that the *emasculator*, in harmony with the habits of its congeners, deposits its egg on the testicle of the black squirrel, as the ichneumon does upon the large larva of the Platysamia, and that after the development of the egg into an immature larva the latter manages to generate an *A. demis*, and to live at the expense of an organ which is not indispensable to the life itself of the squirrel. It seems strange, however, that this deserving observer places much reliance upon the reports of what he considers trustworthy persons, who assured him of having, time and again, positively witnessed actual attacks upon the black squirrel by the red-witch with the view alone of destroying its testicles, as has been, from time to time, noticed among certain breeds of dogs.

The problem calls for communications from all who have accurately observed the habits of these animals, in order to settle this much-discussed and perplexing question.  
CHAS. LINDEN.

**BLUE BIRDS.**—NEW HAVEN, Dec. 19.—I saw ten blue birds flying around this morning and chirping as in the spring. Is it not something unusual?  
VERD MONT ABROAD.

[The incident was an unusual one. It is, however, in keeping with the spring weather of the past week. The birds doubtless find plenty of food, for the air is full of insects. Ed.]

**THE NESTING OF THE SNIPE.**—Our friend, Dr. T. M. Brewer, the well-known authority on matters oological, sends us the following note, which will be new to many of our readers. Writing from Boston, Mass., under date of Dec. 3, he says:

"The nesting of the snipe in the southern part of New England and in the Middle States is not so very rare as some suppose. I have in my cabinet an egg taken by Mr. Ashmead in the Delaware marshes, near Philadelphia, and given me by the late Mr. Cassin. I have another taken by Dr. Holden, now in Stockton, Cal., in New York, near the Pennsylvania line. Mr. Betty wrote me several years ago of his breeding near Springfield, Massachusetts, and also near New Haven, Conn. In both cases, early in June, he found the young when only a few days old. In "Lewis' American Sportsman," page 184, you will see that in May, 1846, as Mr. Lewis was crossing an estate in Maryland, he started one of these birds from an oatfield, and, searching, found its nest, containing four eggs. I might name other cases that have come to my knowledge of a like nature."

**BRANT IN TEXAS.**

**EDITOR FOREST AND STREAM:**  
In your issue of Nov. 15 I notice that Mr. Greene Smith desires to ascertain positively if the true brant ever leaves salt water a hundred miles. I have killed what were called brant by all who saw them near Palestine in this State. They were feeding near a small salt pond called the Saline, and some ten miles south of Palestine, not far from Trinity River. They were evidently on their way south, and were tired out, or unfamiliar with the figure of a man, as I approached them near enough to kill some with shot without much cover.

Vast numbers of wild fowl pass over this region during the migratory season, and sometimes seem very much exhausted, frequently settling down at nightfall in the little ponds that are found in the prairies skirted Trinity River in great flocks. There are no large bodies of water at all in this portion of the State.

Mr. Smith should favor your readers with a full description of the brant he wants. If he will do so and will send a copy to J. L. McMeans, Palestine, Texas, I have no doubt but that he can get one, as he was the saline referred to, which is frequented by wild fowl to a greater extent than any place in that region, if I rightly remember. Or Mr. J. H. Page, Gen. Ticket Agent, I. and G. N. R. R., at Palestine (who sustains the reputation he brought with him, at least, for fair dealing), might throw some light on it. Yours,  
P.

Galesburg, Nov. 24, 1877.

**DRUMMING OF RUFFED GROUSE.**—A correspondent, W. E. D., adds his testimony against the hollow log theory:

I fully endorse the opinion of "A waboose" and many others that a hollow log is not at all necessary to produce the much disputed sound. I have shot them in various places, while and immediately after drumming, when a hollow log was not to be found. Through FOREST AND STREAM an interest in such matters has been awakened in me, and I have made some observations, although my chances are limited. While duck hunting I was hiding by a large pond watching some ducks, they would raise themselves up in the water to an upright position, and flap their wings with a quick, jerky movement, which produced a sound similar to that made by the grouse, but of course not prolonged. That this sound was not made on a hollow log I am sure, the wings did not even strike on the water. I presume others have noticed this as well as I, who am but a novice in the study of nature.

**HABITS OF THE WHITE FISH.**—The peculiar series of stripes or ridges on the back of the Lake Constance whitefish, noted in the Berlin, Germany, letter of Fred. Mather, F. and S., Dec. 13, have also been noticed in the species of this country, as will be seen from the following note:

UNITED STATES COMMISSION, FISH AND FISHERIES, }  
WASHINGTON, D. C., Dec. 13, 1877. }

**EDITOR FOREST AND STREAM:**  
The fact, noted by Prof. Peters, and communicated by Mr. Mather, as peculiar to Lake Constance whitefish, is not unknown to the whitefish of the great lakes. In the breeding season—the month of November—many are found with the tuberculated points—rather similar in appearance and substance to those seen on the head of the "horned dace," (*Semotilus corporalis*), also called "common chub," and other species of the cyprinidae. My recollection is that the points were more prominent in large overgrown males than in others.  
JAMES W. MILNER.

**QUEER OYSTERS.**—A paragraph, with this caption, is running through the columns of the newspapers. The story runs that the timid, peaceful oyster has taken to bloodthirsty ways. This does not mean that the oyster has become aggressive and flies at people like a tiger, but that when he is cut open or dislodged from his shell he sheds blood. We copy a portion of the article in question: "When the oyster is cut behind the heart or between the gills with a knife, blood spurts forth freely." This is indeed horrible! Imagine an oyster like a piece of rare roast beef! Well, what then? We are sure that, ensanguined as oysters might be, amateurs would still indulge in their 'arf dozen on the shell. Pondering a little over this horrible tale, peculiar to the bivalves in and around Cape Henry, the eastern shore and Pocomoke Sound, and grieved lest some imaginative people should sicken over an oyster, we have arrived to this quite natural conclusion in regard to the mystery. It came on us like an inspiration, for reading the article of the bloody oysters had made us hungry, and forthwith we went into an oyster cellar and ordered some raw. Looking at the man opening the oyster we saw around the shell that peculiar red-looking weed, so well-known, called the coral weed, which grows around the oyster. When you take filaments of this weed and press it with an oyster knife, out comes a reddish fluid, which tinges the shell. Of course it requires some stretch of fancy to convert a rather brick-red water into a crimson fluid; but when in want of a topic, an imaginative reporter might call it "heart's blood." Eat, then, good people, your oysters in peace, and draw no dreadful portents from what is the most natural of things. Benificent nature makes no queer oysters, and man's greatest boon remains ever the same—bland, placid, and deliciously flavored, whether raw, roasted, stewed or fried.

**ARRIVALS AT THE GARDEN OF THE ZOOLOGICAL SOCIETY FOR WEEK ENDING TUESDAY, DEC. 11, 1877.**—One brown snake (*Storeria occipito maculata*), presented; two alligators (*A. mississippiensis*), presented. For Week Ending Tuesday, Dec. 18.—Two broad-winged buzzards (*Buteo pennsylvanicus*), presented; one common macaque (*M. cynomolgus*), presented; one common marmoset (*Leopoldo jacchus*), presented.  
ARTHUR E. BROWN, Gen. Supt.

**Woodland, Farm and Garden.**

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, SEC. N. Y. HORTICULTURAL SOCIETY.

**WHAT THE EARTH-WORM DOES FOR THE FARMER.**

**W**ith the progress of scientific investigation many of the vulgar prejudices of the past are fast dying out. Birds, so long regarded as the enemies of the farmer, because at certain seasons they appropriate a few kernels of grain or half a dozen berries, are now known to be his best friends, on account of their destruction of noxious insects; and the harmless toad, once so hated, is now, for the same reason, everywhere protected. The earth-worm has always been disliked by gardeners, and has been thought injurious to plants ife, the general impression being that it gnaws the smaller roots, thus seriously interfering with the growth of the plant. This belief is thoroughly contr overted by the observation of M. Hensen, who, after a series of observations extending over a number of years, is led to believe not only that there is no foundation whatever for this statement, but that the work of the earthworm is a positive benefit to the agriculturist in opening a way for young roots into the subsoil, and in hastening the transformation of recent vegetable matter into fertilizing material.

It is well known that the adult worms in damp or wet weather come to the surface of the ground at night, and with the hinder end of their body in the tube or hole, search th

ground immediately around them for leaves, twigs or any vegetable material which they can find. This they draw into their tubes and proceed to devour, the leaf being moistened and made soft, and then gnawed. Interesting facts were developed in the progress of M. Hensen's investigations in reference to the character of the worm-tubes, but we have scarcely space here to detail them. It is enough to say that there was always found a lining to the tubes of humus much richer than the surrounding soil. A portion of this lining is removed each day, and carried to the surface of the ground, where it is deposited, forming the well-known "casts." In about half the tubes not quite newly made M. Hensen found the roots of plants growing at the surface in the most vigorous development, running through the tubes to the end, and at that point giving off finer rootlets, which passed into the walls. It seems thus that the moist earth of the tubes, and the loose, rich and moist earth of the walls is most favorable for the growth downward of plant roots. The earth deposited by the worms, when submitted to microscopic examination, shows a close resemblance to the leaf mold prepared by gardeners for filling flower-pots. The plant cells appear to be for the most part destroyed, and altogether the chemical composition of the worm-earth appears very much like that of very fertile soil.

That this fertilization of the soil takes place much more rapidly than would be supposed, is proved by experiments of M. Hensen. He found in his garden nine open worm tubes to the square foot, and, combining this with other facts, he estimates 133,000 worms to the hectare, each worm depositing one half gramme of secretion in the twenty-four hours. This calculation, although of course good only for the locality where the investigations were carried on, gives an idea of the vast amount of good accomplished through this humble agent.

The author of the interesting and practical paper to which we refer sums up his conclusions as follows: "It is clear that no new manure material can be produced by it (the earth-worm), but it utilizes that which is present in various ways. 1. It tends to effect a regular distribution of the natural manure material of fields, inasmuch as it removes leaves and loose plants from the force of the wind, and fixes them. 2. It accelerates the transformation of this material. 3. It distributes it through the ground. 4. It opens up the under soil for the plant roots. 5. It makes this fertile."

M. Hensen's paper has excited considerable interest wherever it has been read, and there are not wanting writers to confirm, and even add to his conclusions. Two communications in a recent number of *Nature* are so interesting that we shall quote from them at some length. Rev. Henry Cooper Key says: "I thought it was a well-known fact that worms, by means of their 'casts,' effect a complete *renouement* of the soil of meadowland, down to a certain depth, in the course of a few years. But whether well known or not, met with a demonstration of this important fact in 1857. When putting down a considerable extent of iron fencing in the alluvial meadows near my house (consequent upon an exchange of land) I had occasion to cut a ditch two or three feet deep, and when the workmen had finished the ditch—a quarter of a mile long in all—I was astonished to see in one portion, about sixty yards in length, a distinct and very even narrow line of coal ashes, mixed with small coal, in the clean-cut surface of the fine loam of the ditch face, perfectly parallel with the top sward. It immediately occurred to me that this was the work of the earth-worm, and upon inquiry I found that the farmer who had occupied the land for many years remembered having once, and only once, carted out some coal ashes and spread it at this point not many years before. I forget the exact number of years, but believe it was about eighteen. I have a distinct recollection, however, that the depth of the coal ashes below the surface was at least seven inches, and that this seemed to confirm the general belief that the depth to which the earth-worm burrows is about that amount. I may add that the color of the loam above the line of coal ashes was decidedly darker than that below."

Mr. A. Stephen Wilson, in the same number of *Nature*, brings out a new point, and one of no little importance. He says, after speaking of the observations of M. Hensen: "But the operation of the earth-worm has a significance in relation to the vegetable world of even a profounder kind than that of the fertilization of the soil. Some months ago, in searching for young ash plants with three cotyledons, I found that in a great many cases the samara, or seed of the ash, had been drawn into a worm's hole, and had there found moisture and other essential conditions of growth, while the same seeds lying dry upon the surface had not germinated. There can thus be no doubt that many seeds of all kinds are drawn under the surface of the ground or covered by the earth thrown up by worms. They are thus preserved from birds and various enemies, and are placed in the proper position for germination. The dead plant is perpetuated from its fallen panicle by the earth-worm. An ash tree, or a whole forest of ash trees, may have been planted by earthworms."

**PLANTS IN SLEEPING ROOMS.**—So much has been said and written, and to so little purpose, on the injurious effect of plants in sleeping rooms, that we make no excuse in laying before our readers the following letter from Professor Kedzie, of the Michigan Agricultural College, to Governor Holt. He writes as follows:

Not to leave the matter in the condition of mere conjecture, I have gathered and analyzed specimens of air from a room containing a few plants. I gathered it from the college greenhouse where more than 6,000 plants are growing. I gathered the air before sunrise on the mornings of April 16 and 17.

The room had been closed for more than twelve hours, and if the plants exhaled carbonic acid to an injurious extent, the analysis of the air from such a room would certainly disclose this fact. The three specimens of air gathered on the morning of April 16, from different parts of the room, gave 4.11, 4.4 and 4.00 parts of carbonic acid in 10,000 of air, or an average of 4.05 in 1,000. The two specimens of air gathered April 17 gave 3.80 and 3.88 parts of carbonic acid, or an average of 3.84 parts of carbonic acid in 10,000 of air, while the out-door air contains 4 parts in 10,000. It will thus be seen that the air in the greenhouse was better than "pure country air." This deficiency of carbonic acid was doubtless due to the absorption of carbonic acid, and consequent accumulation of oxygen during daylight, since the windows of the greenhouse were closed day and night on account of the cool weather. To ascertain whether the air of the greenhouse had more carbonic acid by night than by day, I gathered two specimens of air in different parts of the house at two o'clock P. M., April 17. These gave 1.40 and 1.38 parts of carbonic acid in 10,000, or an average of 1.39 parts, showing that the night air contained more carbonic acid than did the air of day. Now, if a room in which were more than 6,000 plants, while containing more carbonic acid by night than by day, contains less carbonic acid than any sleeping room on this continent, we may safely conclude that one or two dozen plants in a room, will not exhale enough carbonic acid by night to injure the sleepers.

**ALL ABOUT RAISING TOBACCO.**—The following very full information in regard to tobacco culture will be of value to many of our Southern readers. A correspondent, "E. L. F.," of Baton Rouge, La., inquires:

1. What does (a good crop) tobacco yield in value to the acre, and how does it compare in value with cotton?  
2. How many hands ought to be used on each acre of tobacco, and how does the labor of raising tobacco successfully compare with that needed for cotton? In our Gulf States but little tobacco is raised. It is not much cultivated South of Tennessee, and for this reason I am anxious to know how it compares with cotton.

3. Are lands suitable for cotton fit for tobacco?  
4. What will it cost me to have made to order in this country (if that is possible) a double-barreled breech-loading hunting rifle, positive action, carrying a spherical ball, 16 shotgun gauge, with a slow pitch of rifling, one turn in eight feet, and who can make such a rifle?

5. Where, and at what price, can I get a work on tobacco culture?

Ans.—1. There is a wide difference in tobacco as to quality and the market it is intended for. North Carolina grows the finest, brightest and lightest—some twenty plants to the pound—and brings the highest price in the markets, with the exception of a single parish in Louisiana, where the famous perique is cultivated. Missouri grows a coarse, heavy, thick, black-stemmed tobacco, some four or five plants to the pound, and is sold at a low price, and, as we believe, is made into pig-tail and negro-head for sailors' chewing in the European markets. Kentucky is rather finer class than the above. Connecticut cultivates tobacco for wrappers for cigars. Virginia grows, and has, up to the present time, cultivated the sweetest, and literally the purest tobacco for chewing and pipe-smoking, and is classed between the North Carolina and other southern tobaccos as to weight—that is to say about eight or nine plants to the pound. Tobacco is very low at present, the best Virginia bringing only 8 cents a pound, and would certainly not be cultivated if there was any other money crop. Its value per acre varies anywhere from \$30 to \$300 per acre, according to land, successful cultivation, curing and handling. It is a much larger crop than cotton. As soon as one crop is out of the ground and in the barns, preparations for another year ought to be begun, so there are always two tobacco crops on hand—one in the fields and the other in the barns, or what is termed "bulked down." 2. One darky per acre can attend to the cultivation. We should think, on the whole, that successful cotton growing would produce a larger pecuniary result, with less labor and risk, than successful tobacco growing. If this is not so, how is it that the planters of the further South, in slavery times, would give large prices for field hands in Virginia, take them South, and in three years would easily pay the price given for them out of the labor. This could never be done in the Middle Southern States. 3. The lands are probably suitable, but we should think the climate is not. 4. The rifle you require would cost from \$100 to \$150, according to workmanship. The Magazine rifle has superseded the double-barrel. The latter you can buy for \$40 or \$50. 5. We can send to you a little work, price 25 cents. A more exhaustive book would cost \$2.

**NOTICE TO SPORTSMEN.**—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grilse and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting.

P. O. Box 1,294.—Add. ABBEY & IMBRIE, 88 Maiden Lane.

—The *New York Times* has the following sensible paragraph, which it would do well for advertisers to read. The *Times* knows what it talks about:

The circulations of all the great newspapers have increased greatly during the last few years, and the advertisements in them reach a larger number of persons and are of more value to the advertisers than all the bills, circulars and "doggers," street-car legends, and colored Indian "sandwiches" that inventive theatrical and commercial people inflict upon the citizens of New York.

## The Kennel.

To CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age. 2. Food and medicine given. 3. Appearance of the eye; of the coat; of the tongue and lips. 4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc. 5. Breathing, the number of respirations per minute, and whether labored or not. 6. Condition of the bowels and secretions of the kidneys, color, etc. 7. Appetite; regular, variable, etc. 8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg. 9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed; signs of suffering, etc.

### POINTS IN JUDGING DOGS.

We continue our list of points used in judging dogs. For first part see our issue of Dec. 20th.

—In judging the points of the Dachshunds the printer made some slight errors. The points for Dachshunds should be as follows:

Skull.....	10	Feet.....	7½
Jaw.....	20	Stern.....	10
Ears, eyes and lips.....	10	Coat.....	5
Length of body.....	15	Color.....	7½
Legs.....	15	Size, symmetry, quality.....	10

#### MASTIFF.

Size of head.....	10	Chest.....	7
Shape of head.....	10	Legs.....	5
Eyes.....	5	Feet.....	5
Ears.....	5	Color.....	5
Muzzle.....	5	Coat.....	5
Neck.....	5	Symmetry.....	10
Shoulders.....	5	Stern.....	5
Loins.....	8	Size.....	5

#### NEWFOUNDLAND.

Head.....	30	Size.....	10
Neck.....	10	Symmetry.....	10
Back.....	10	Coat.....	5
Chest.....	5	Color.....	5
Feet.....	5	Stern.....	5
Legs.....	5	Size.....	5

#### ST. BERNARD.

Head.....	20	Symmetry.....	10
Line down from poll.....	10	Size.....	20
Frame.....	10	Double dew claw.....	10
Feet.....	5	Color.....	5
Legs.....	5	Coat.....	5

#### DALMATIAN DOG.

Size.....	20	Color.....	30
Clearness.....	20	Symmetry.....	20
Freedom from white patches.....	10		

#### SCOTCH COLLEY.

Head.....	15	Feet.....	10
White line between eyes.....	5	Legs.....	10
Shoulders.....	10	Coat.....	10
Chest.....	10	Color.....	10
Loins.....	10	Symmetry.....	10

#### PUG.

Head.....	10	Coat.....	10
Ears.....	10	Cur of tail.....	10
Pure color.....	10	Hare feet.....	10
Distinct mask.....	10	Symmetry.....	5
Black trace.....	10	Compactness.....	5
Cheek moles.....	10		

#### MALTESE DOG.

Coat.....	30	Tail.....	20
Color.....	20	Eyes.....	5
Size.....	20	Nose.....	5

#### FOX TERRIER.

Head and Ears.....	10	Shoulders.....	5
Nose.....	10	Quarters.....	5
Jaw.....	5	Legs.....	10
Eye.....	5	Feet.....	10
Neck.....	5	Symmetry.....	10
Body and chest.....	10	Color.....	5
Back.....	10		

#### KING CHARLES.

Head.....	10	Color.....	10
Nose and Jaw.....	10	Feather.....	10
Eyes.....	5	Symmetry.....	5
Ears.....	15	Compactness.....	5
Length of coat.....	5	Size.....	10
Texture.....	5	Carriage of tail.....	10

**WEIGHTS OF DOGS.**—A great many inquiries have been made of us in regard to the weights of dogs. An approximate standard of weights can however only be given. As is well enough known, dog owners do not breed to size or bulk as do cattle fanciers. On the other hand, in fancy dogs the smaller they can be turned out the higher they are prized. While a St. Bernard might be thought a good winner because he was the heaviest brute in the show, his bulk might be produced at the sacrifice of his symmetry. In the true sporting dog a medium size is what is wanted. The same physical advantage which a moderately sized man possesses over a pigmy or a giant is true as to dogs. Of course there are exceptions. All of us have known very big and very little setters and pointers whose performances have been superb. Still the exceptions prove the rule. A black-and-tan terrier may weigh from 7 to 25 pounds, but the best size is about 10 to 12 pounds. Skye terriers may weigh from 10 to 18 pounds; the Dandie Dinmont from 14 to 25 pounds. In fox-terriers the range is quite wide, being from 10 pounds up to 35 pounds. Bull terriers may weigh from 18 to 32 pounds, and some celebrated dogs have turned the scale at 55 pounds. Bull-dogs vary from 15 up to 60 pounds. The old bull dog, as taken from old pictures, must have been a larger dog, weighing as much as 100 pounds. A mastiff ought to weigh always over 100 pounds, say from 120 to 135 pounds. In Newfoundland it is quite desirable that some approximative standard should be given, which would include the large and small breeds; 80 pounds for the smaller breed, and 110 pounds for the larger dogs have been proposed. King Charles, 5 to 10 pounds. Italian greyhounds have been bred down to five pounds, but from 14 to 18 pounds are choice weights.

**THE USE OF THE RUSSIAN BATH AS A CURE FOR HYDROPHOBIA.**—As we have been requested to introduce Professor Buisson's cure for hydrophobia by means of the Russian bath, we publish the account, which is as follows. (This method of cure appeared as early as 1865, and was published by us in 1875). Having contracted the disease from a hydrophobic patient, after the symptoms were fully declared, Dr. Buisson writes:

"In this state, feeling that my course was preservative and not curative, I took a vapor bath, not with the intention of cure, but of suffocating myself. When the bath was at a heat of 82 deg. centigrade (98.35 Fahrenheit) all the symptoms disappeared as if by magic, and since then I have never felt anything more of them. I have attended more than eighty persons bitten by mad animals, and I have not lost a single case. When a person has been bitten by a mad dog he must for several successive days take a vapor bath *a la Russe*, as it is called. This is the preventive remedy. When the disease is declared it only requires one vapor bath, rapidly increased to 87 deg. centigrade, then slowly to 63 deg. The patient must strictly confine himself to his chamber until the cure is complete.

**EIGHT HUNDRED QUAIL, NOT TWO.**—We have to beg Mr. G. S. Fowler's pardon for an error of the types. We recorded the astounding fact that Fan, Rufus and Yankee had been instrumental in the killing of some "two" quail. It ought to have been 800. We suppose the written number, 800, was taken by the type setter for two. Once on a time a man in England wrote to his correspondent in India for "too" monkeys; he meant two, but he did not spell very well and had forgotten to cross his t, so he received 100 monkeys of assorted kinds and sizes.

**JEFF.**—Horace Smith, Esq., kindly sends us the following, as to the pedigree of Jeff, which a correspondent asks for: "The setter dog Jeff I sold to Capt. R. L. Ogden, of San Francisco, Cal., was by Fritz, an extra fine Gordon setter, now owned by Edward Howe, Esq., president of Princeton Bank, N. J.; and the bitch from which Jeff was bred was Nell, the property of J. Q. A. Packer, Esq., also of Princeton, N. J. Nell was known far and wide as one of the very best in all that section of the country. Jeff and Nell are both dead."

**DETROIT BENCH SHOW.**—A bench show of dogs will be held at Detroit, Jan. 8, 9, 10 and 11, under the superintendence of Chas. Lincoln.

—In our next number we will give the names of the pointers and setters prize winners at the Birmingham dog show.

**BALTIMORE DOG SHOW FOR 1878.**—The Baltimore dog show will be held in April, 1878, commencing on the 23d and continuing 24th, 25th and 26th. It will be held under the auspices of the Baltimore Kennel Club.

**WANTED A DEER HOUND.**—The owner of the two English imported setters, advertised in the *FOREST AND STREAM* of the 6th inst., is willing to exchange one of them for a fine deer hound. Address C. M. DAUPHIN, Dauphin Co., Penn.

—The Montclair Hunt Club had a successful coursing run on Christmas Day, the hares being caught about six miles from the rendezvous.

**CARRIE.**—Jesse Sherwood, (Edina, Mo.) has sold to W. T. Irwin, of Topeka, Kansas, his setter bitch, "Carrie." Carrie was bred by E. F. Stoddard, of Dayton, Ohio, sire, his imported "Mar," (Minx-Plunket); dam, his imported "Dutchess." She is dam of "Carrie II," winner in the "Hampton Field trials," 1877. Carrie was a prize winner at St. Louis, 1876. She is in whelp to Sherwood Champion, Gordon "Rupert." He won 1st prize at Birmingham, Eng., and also at New York and St. Louis, 1877. Also 1st as best stock dog at St. Louis. Carrie will be a valuable addition to Mr. Irwin's kennel.

**NAME CLAIMED.**—*Newton, Kans.*—I claim the name of Cronin for my bear-eyed, lop-eared, big-nosed, white-and-liver colored pointer pup, by Ned (Dickensheets), out of Pan (Lowe). A. D. KNOWLTON.

—The Meadville Dog, Poultry and Pigeon Pet Stock Association, will hold their first show on the 25th, 26th, 27th, and 29th of Jan., 1878, at Meadville, Pa. Premium lists will be furnished on application to the corresponding secretary, W. A. Logan.

**A RETRIEVING BABY.**—*Editor Forest and Stream and Glean.*—Last summer I amused myself with breaking a young setter dog, to the great edification of my eldest, a youth of five years, who took a lively interest in my proceedings. Sitting in my room one afternoon, I heard the words I used in training coming from the nursery, and thinking Master Charles was spoiling the dog, stepped to the door to see what he was about. The dog was not there, but as I entered the room the baby, two years old, was retrieving the towel, which she had found in a corner where it had been stowed by Charlie. Eddie, the second boy, was still hunting "dead bird," not having observed the baby "find." I discovered that Charles was in the habit of training the children, and had them under quite good command, having broken them to stand, down charge and retrieve. And now some wicked slanderer asserts that I am so fond of dog-breaking that I even train my children according to ducks. E. S.

**AN OLD DOG'S POINT.**—*Hanover, Pa., Dec. 6.*—The sportsmen here own in many instances excellent dogs, which, although not claiming any imported lineage, would make many of the

champion blue bloods and natives look to their laurels. While upon this subject I cannot resist mentioning a double-nosed setter, owned by Mr. Jacob Trone of this place. Although now about fifteen years old, stiff and deaf as a post, yet his nose appears to be as keen as ever, and he finds and stands birds almost every day for the son of his owner, who is now serving his apprenticeship at the sport of which his father has been so many years an earnest follower. "Tobe" is the fullest double-nosed dog I have ever seen; the nostrils not only standing so far apart that a finger can easily be placed between them, but the two front teeth of his upper jaw are separated, giving him the appearance of having received an injury. Indeed, often have I heard a farmer of the neighborhood, in Pennsylvania Dutch, inquire—"Ei wass fohli du hund?" (What is the matter with your dog?) And it was difficult to convince him that it was natural. I could fill columns with incidents in his career, noteworthy and interesting to every hunter. In pursuit of jack snipe, several years since, "Tobe" suddenly came to a stand at the edge of a pond of water, collected in an abandoned stone quarry. Advancing to flush the game, a number of robins rose from in front of the dog. His owner, angered at the supposed want of good judgment of the dog, administered a severe chastisement, and told him to "hie on," but "Tobe" wouldn't "hie" worth a cent. On the contrary, assumed again the rigid position of the well-trained dog at point, and on walking to the opposite side of the pond (fully twenty feet from the dog) two *Wilson's* were flushed and killed. Never since has "Tobe" been whipped for standing, for if robins or anything else flew up before his point there was a certainty of game being there also.

**CLASSIFICATIONS AT BENCH SHOWS.**

MANGORIKE, RICHMOND COUNTY, Va., Dec. 15, 1877.  
EDITOR FOREST AND STREAM:

The ideas of "Y. A. R." in relation to competition between imported and native dogs at bench shows, as expressed in *F. AND S.*, of Nov. 23, would probably be the same in regard to competition in the field. Your correspondent, "Y. A. R.," says that "all dogs bred in America and whelped here should compete in native classes. This will soon bring out the fact and dispose of the vexatiously disputed question as to whether the importation of setters is an improvement or the contrary, by bringing the produce of importers into direct competition with the natives;" and that, "where classes are formed for imported dogs they should be open only to such animals as are imported." As I understand "Y. A. R.," his suggestion is to drop from the classes of imported dogs the "progeny of the first generation," and he instances the catalogue of the Westminster Kennel Club as being one of the best, but open to the change suggested as an improvement. If I breed imported dogs, will competition between them and their progeny show the relative merits of native and imported dogs? I should say not. But as the ancestors of all our sporting dogs were imported, the nice question comes as to just what degree of relationship marks the line of demarcation, if such there be, between native and the "progeny of imported" dogs.

I have been shooting this season over two dogs that might be classified separately. The sire of one (Guy) was an imported Crystal Palace prize winner, and Guy is the sire of the other (Cora II). Now, Guy might perhaps be classified as "progeny of the first generation," while Cora II. should be classified as native. Each possesses the same temper and disposition, nose, courage, gentleness, coat, color, etc. In fact, mutual qualities for both bench and field, differing only in one being a little more thoroughly broken than the other. One of these dogs competing with the other, either on the bench or in the field, would afford no just comparison of the relative merits of the classes they might respectively represent. It is true that Guy's dam (Cora) is not imported, but is a thoroughbred English setter, as is shown so well by her characteristic head, which answers in every particular to the standard points of the breed. Now, Mr. Editor, I would reverse your remark made in connection with "Y. A. R.'s" letter, and say that, so far at least as my own dogs are concerned, there is no reason why native setters should not compete with those classified as imported. But I would apply this remark solely to bench shows, and not to field trials. I do not think that the best dogs of this country are in any respects inferior to the best of Great Britain, and therefore the best of the world, in desirable field qualities; but I do most emphatically declare that there is a vast difference in the development by training of those qualities as between America and Great Britain. In the latter country, probably, a very large majority of the well-bred sporting dogs are well-broken; but in America a very large majority of the same class of dogs are not well-broken. By the term well-broken I mean something more than standing game and retrieving, and the fact that my statement above is indisputably correct is well known to those sportsmen who may have shot in different sections of both countries. I know that by saying this over my own name I am likely to bring a storm about my ears, especially from many personal friends, owners of fine dogs, and scolders at what they term my "English ideas." Yet many of them to whom a dog is valued in proportion to the game bagged can only know the difference between a thoroughly broken dog and one that is not by the experience of repeatedly shooting over each, and measuring them by their own standard of "the bag." As a case in point, I would instance a late occurrence in my own experience with a dog, which I daily endeavored to teach in the field. I took the time that a friend thought might be more profitably, and certainly more enjoyably, spent in hurrying on in search of more game. I showed this friend that by spending half the season in assiduous dog-breaking I can count a better bag for the whole season than could be made over half-broken dogs of greater experience. Not intending to write upon dog-breaking at length, I only wish to give me hints as to why I should consider the competition between English and American dogs (imported and native), less favoring one over the other on the bench than in the field. And the difference in the field would not be shown at a public trial for which the dogs have been specially trained, as it would be shown to a sportsman shooting over the respective dogs and killing a variety of game. In conclusion, I would ask why the distinction made in classification between native and imported might have been made a few years ago, but not now?

[In reply to our correspondent, whose interesting comments we publish above, we beg to state that the suggestion made by us as to the distinction made in classification between "native and imported, which might have been made a few years ago, but not now," refers to their progeny. To-day we are rather given, so we think in bench shows, into making too many classifications, from whence arises confusion. There is enough infusion of the best English blood now in our kennels in 1877, and there will be in 1878, for us to pit directly the progeny of English stock with native; or, as "Y. A. R." has it, "bringing the produce of importers into direct competition with natives. Even eight years ago this would not have been possible, but to-day it certainly is.—Ed.]

**Sea and River Fishing.**

**FISH IN SEASON IN DECEMBER.**

Black Bass, *Micropterus salmoides*; Yellow Perch, *Perca flavescens*.  
*M. nigricans*. Sea Bass, *Selanops ocellatus*.  
Pike of Pickerel, *Esox lucius*. White Perch, *Morone americana*.

**FISH IN MARKET.**—Bass, 25 cents a pound; smelts, 15 to 20; bluefish, 15; salmon, 30; mackerel, 25; shad, southern, \$1; green turtle, 18 cents; terrakon, \$10 to \$36 a dozen; halibut, 18 cents a pound; haddock, 8; cod, 5 to 6; flanders, 10; lobsters, 10 each; sheep's head, 25; English turbot, \$1 a pound; scollops, \$1 a gallon; soft clams, 60 cents a hundred; white fish, 18 cents a pound. A very fine lot of red snappers from Florida are in the market. Turtle, owing to the pestal season, are scarce.

**SHAD IN THE HUDSON ALL THE YEAR ROUND.**—Mr. A. S. Briggs, of Tarrytown, informs us that two weeks ago he caught two roe-shad, weighing 3½ and 4½ pounds. Mr. Briggs says that there is not a month in the year, save August, that he cannot catch shad in the Hudson. In August he has no nets. [This information is quite important, and is worthy of future study. Ed.]

**CODFISHING NEAR NEW YORK.**—Last Sunday the Seth Low made her sixth trip this winter out of New York with a party of fishermen intent on cod. Two facts are evident here: that there is no winter this December, and that cod are in abundance. No end of cod, averaging six pounds, were caught.

**THE HERRING FISHERY.**—A great scarcity of herring is reported on the north coast of Newfoundland, owing to moderate weather and southerly winds. The indications are that the fishery will prove a failure.

**MOVEMENTS OF THE FISHING FLEET.**—The schooner Ada K. Terry arrived on Monday from Grand Menan, with a cargo of frozen herring, being the first receipt for the season, and ahead of the call for baiting purposes. On Tuesday there was another arrival in the same line, the schooner Smuggler, Capt. McLane. These vessels are about a week ahead of the first arrivals last year. The number of Bank arrivals the past week has been small. The Chester R. Lawrence arrived on Friday with about 25,000 pounds halibut. The Edward Groover arrived with 40,000 pounds halibut on Tuesday. Schooner M. H. Perkins arrived Wednesday, with about 6,000 pounds halibut.

The other arrivals for the week have been confined to the Shore and Georges fleets. The boat and dory fishermen have continued to meet with good success, and prices have been a trifle above the average. The number of Georges arrivals has been four, bringing 36,000 pounds codfish.—*Cape Ann Advertiser, Dec. 21.*

**THE MACKEREL FISHERY.**—The Boston Fish Bureau reports the mackerel inspection of that city for the present year at 20,139 pounds, against 36,884 pounds last year.

—Miss Sara J. McBride, so well known to all devotees of angling as a lady skilled in the manufacture of flies, has paid us a visit. Among the many fishing implements at the Centennial in group V, none excited greater attention than Miss McBride's show cases, in which her flies were exhibited. The lady was honored with a Centennial medal. Miss McBride just returned from a visit to England, Ireland and Scotland, where she paid particular attention to the many varieties of flies made abroad. As we may consider Miss McBride as an authority, she assures us that we can much more than hold our own in this country in the delicate art of fly making, for that English flies are generally clumsy as compared with those of our best makers. In Redditch, England, where the best hooks are made, Miss McBride devoted some months personally to the manufacture of hooks to be used in her business. Miss McBride intends establishing an atelier for flies and angling material in New York, and we shall shortly announce her exact place of business. This lady's work is too well known to all fishermen in the country to require any laudatory comments.

**ENGLISH FISH CULTURE.**—The fish-culturists of England are making strenuous efforts to improve declining or nearly ruined fisheries, and render them of value as food producers. The *London Times* in a recent article says: "A large and very healthy consignment of salmon and trout eggs from the Rhine, Lucerne and Geneva have lately been received in London. The salmon eggs were all gathered from Rhine fish, collected and packed under the advice of Herr Haack, of the famous fish culture establishment at Huningue. The process of packing is described as very simple. The eggs are counted into thousands. They are then carefully inclosed in gauze and lightly packed in some well cleaned soft moss. The boxes are tied up all together in handy parcels and sent off to their destination, great care being taken in transit to prevent the eggs from being shaken. In the present instance the ova arrived in fine condition."

**HOW THE COSSACKS CATCH STURGEON.**—In that most interesting book of travel, "A Ride to Khiva," Capt. Burnaby tells us of the sterlet, a fish caught in the Volga, and considered by the Russian *bon vivants* a great delicacy:

"The bones are of a very glutinous nature and can be masticated, while the taste of a sterlet is something between that of a barbel and a perch, the muddy flavor of the former predominating. However, they are an expensive luxury, as to be in perfection for the table they should be taken out of the water alive and put at once into the cooking pot. In most of the restaurants in the capital the proprietors keep sterlet alive in small ponds. The intending purchaser goes there to select a fish for his dinner, the owner of the restaurant dragging it out of the water with a landing-net for his customer's inspection. 'The Cossacks of the Ural have a singular way of catching sturgeon,' observed my companion, 'and it is a method, I believe, unknown in any other part of Europe. At certain times in the winter the men assemble in large numbers by the side of the river, and, dismounting

from their horses, cut a deep breach across the stream from one of its banks to the other. They then lower their nets into the water and arrange them so as to block up the entire channel, when, getting on their horses, they will ride for seven or eight miles along the banks. They then form a line of horsemen, reaching from shore to shore, and gallop down in the direction of the nets. The fish hearing the clatter of a thousand hoofs, swim away from the sound, and dart like lightning in the opposite direction. Here their course is at once averted, and they become entangled in the trammels. The quantity of sturgeon is at times so large that the sheer weight of the fish is sufficient to force a passage through the nets, a blank day being the result to the fishermen."

—The waters of the South Side Club of Long Island are hereafter to be stocked with fish hatched on the grounds. Hatching-houses have been erected, and fish are being striped and the eggs prepared for artificial hatching.

## Game Bag and Gun.

### GAME NOW IN SEASON.

MOOSE, <i>Alces malchis</i> .	Pinnated grouse or prairie chicken
Caribou, <i>Tarandus rangifer</i> .	<i>Cephalonia cygnoides</i> .
Elk or wapiti, <i>Cervus canadensis</i> .	Ruffed grouse or pheasant, <i>Bonasa umbellus</i> .
Red or Virginia deer, <i>Carcacus virginianus</i> .	Quail or partridge, <i>Ortyx virginianus</i> .
Squirrels, red, black and gray.	Woodcock, <i>Philohela Minor</i> .
Hares, brown and gray.	
Wiu turkeys, <i>Melagris gallopavo</i> .	

"Bay birds" generally, including various species of plover, sand piper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets &c., coming under the group *Limacoles*, or Shore Birds.

☞ In New York State December is a close season for deer. Deer shooting is permitted only during the months of September, October and November. Sale of venison is permitted until January 1st, and not after.

VERMONT—*Ferrisburgh, Dec. 21.*—Grouse are plenty, and on these and the little foxes we have to rely for sport.

VERD MONT.

A SHOOTING CLUB AT BLUE POINT.—Within an easy journey of the metropolis there are few places which offer greater attractions than Blue Point, Long Island. *Imprimis*, there are those famous Blue Point oysters which have no rivals in the bivalve world. Blue Point in summer has good fishing, there being found in the waters bluefish and sheephead; but just now it is a good place for ducks, as a great many varieties, with geese, frequent the locality. In addition to other attractions is the nearness of the location to the city, being within two hours' ride by the Long Island Railroad. Under the management of Mr. Horace Howard, who owns a large extent of valuable property in the vicinity of Blue Point, a select club of gentlemen is now forming for the purpose of shooting there. Among others are—John Avery, Dr. Geo. H. Glenney, John C. Dowling and Chas. McDonald. Gentlemen wishing to join the club should address, for particulars, Mr. H. Howard, Blue Point, Long Island.

PENNSYLVANIA—*Petroleum Centre, Dec. 20.*—Mr. A. G. Lewis, a member of the sportsmen's club of this place, shot last week a white squirrel, weight 22 ozs., length 22½ inches. It was milk-white with black eyes, so it was not an albino. Good bags of ruffed grouse are made daily around here, and I have noticed that by far the greater number are cock birds. The close season for rabbits commenced Dec. 15, but I fear that the boys around here will not pay much attention to it, as we all know that rabbits are at their best in December and January, and they are far too numerous for the farmer's comfort. In deep snows they do considerable damage to young trees; the time for shooting them ought to be extended to January 15. Such is the opinion of our club, and we have over fifty members.

BLUE ROCK.

Philadelphia, Dec. 15.—The continued mild and genial weather has added greatly to the comfort and pleasure of our sportsmen, and many are still "afield" in quest of game. The bags of quails made in our own State have been remarkably light. Those made in New Jersey and Maryland have rendered a better showing, yet compare very poorly with the yield of the past several seasons. This marked scarcity of birds is properly attributed to the severity of last winter. The largest bag of quails reported for one day is sixty-five to two guns—Messrs. Gwyn and Hudson. Woodcock have been unusually plentiful in Maryland this fall, as the following bags prove: W. Greenwood and C. Lipman, two days, 74 woodcock; E. Griffith, one day, 37 woodcock; C. Alberton, one day, 36 woodcock; J. Todd, three days, 114 woodcock; R. Woods, three days, 90 woodcock. Other bags equally good were reported. Very few ducks have been killed on the Chesapeake waters during the past two weeks—the birds for some unaccountable reason have disappeared, probably migrated further south. It was observed that the flight of canvas-backs and red-heads this year was unexceptionably large. The desertion is therefore more apparent.

D.

TENNESSEE—*Savannah, Nov. 28.*—Quails are more numerous this fall than they have been for several years. Squirrels have made their appearance in large numbers, attracted by the extraordinary quantities of mast. Ducks and geese have not arrived yet, being delayed, I suppose, by the unusual warmth of the season. Turkeys are reported plentiful. There are no snipe to be seen in this vicinity, and only a very few woodcock. I have not seen a single specimen of either this fall.

WILL.

LOUISIANA—*Bayou Teche, Dec. 1.*—Jack snipe are along the marshes back of the Teche. They are shipped by the thousands each week to New Orleans. One steamer, Mary Lewis, took on board several of these birds between St. Martinsville and Franklin. Woodcock have not yet arrived, though it is expected that this cold snap will drive them here. I was told that last year a boy killed 34 woodcock in one afternoon. Deer and bears are on the smaller bayous. Green-wing teal are numerous.

ARROW.

MISSISSIPPI—*Cornith, Dec. 10.*—Weather very cold for this season; no ducks in yet; have bagged a good many quails; several turkeys have been shot by sportsmen from here.

GUYON.

CHRISTMAS TURKEYS, CHIRP!—There is no excuse for the Texan going without a good Christmas dinner. We don't know just how many mouths one of those gobblers could fill, but at the most moderate estimation, even he who does not follow in the footsteps of the abstemious Train, might feel thankfully full on a five cent cut from a twenty-two and a half cent turkey. That's just what they sell for in San Antonio, according to our correspondent, Arrow, who writes under date of Dec. 10:

To-day mine host, Menger, bought a large buck for \$2.25 and a lot of fine deer—four bucks and a doe—for \$6. He also purchased thirty wild turkeys for 32½ cents apiece. The hunter who sold them had two wagon loads of wild turkeys; in all one hundred and eleven. Last week he sold sixty-five of the same kind. These are killed in Frio County, about 70 miles from here. Deer are abundant there.

IOWA—*Mount Pleasant, Dec. 21.*—Our shooting has been poor here on account of the constant wet and muddy weather. Quail plenty, and more chickens than usual.

MONTANA—*Fort Shaw, Dec. 15.*—We have been deprived of much of our customary sport during the past season, on account of the scarcity of our favorites—the grouse families—which have not been nearly so plentiful as usual, although there seemed to be a fair stock in the spring. I think that the late snows we had interfered with their nesting, and either drove the pinnated fellows to the foot hills or destroyed their nests entirely, as they were not to be found on their usual haunts—the grainfields. However, we got partial satisfaction out of geese and mallard duck, which have been fairly plentiful, and I and my hunting "pard" have made several very nice bags, as have also a number of other parties.

K.

CALIFORNIA—*Lake County.*—Lake County is well-known to sportsmen for its abundance of game and fish. In fact, in this particular it stands almost without a rival on the coast. Deer abound in the hills and mountains in all portions of the county, and rabbits and hares are plentiful. Grizzlies are very scarce, but other varieties of bear are quite numerous in certain sections of the county. Canvas-back, mallard, teal, and other ducks are very plentiful on the lake in the fall and winter, and wild geese resort here every season. Quail are abundant, and snipe are often found. Grouse and mountain quail are also found in many parts of the county, especially among the fir-forests of the northern section. Very many kinds of fish may be found in Clear Lake, such as perch, pike, silver-side, blackfish and lake trout, and the streams flowing from the mountains have plenty of brook trout. The fish from Clear Lake run up all the tributary streams in the spring in vast numbers, and during some seasons the immense quantities that may be seen and killed in some of these streams is incredible to those who have never seen them. There are no salmon in Clear Lake, but in the northern part of the county, about the head waters of Eel River, they are plentiful. The latter perch is only found in the lakes, and only bites during the part of April, and in May and June; but the sport during that period is as fine as fishermen can wish.—*Lake County Bee.*

CANVAS-BACK SPORTING CLUB.—San Francisco has a new sportsmen's club, which has taken unto itself the above name. For its shooting expeditions the club has provided a floating club-house, built upon a scow sixty feet long and thirty feet wide; has fitted it up with sails, and provided a small tug to navigate the bay river and sloughs when the wind falls. They have fitted it up with sleeping-rooms, a parlor, kitchen and dining-room, and all the convenience of a home afloat. The scow is also equipped with boats, decoys and other apparatus. It is the intention of the club to secure some extensive shooting grounds for their exclusive use. The membership of the club is limited to twenty. Among those already enrolled are Ben Holladay, Jr., J. B. Wattles, E. P. Hall and Jennings S. Cox, brokers; K. L. Ogden, capitalist; H. K. Moore, lawyer; Virgil Williams, artist; C. H. Maddox, Sydney Smith, A. L. Tubbs, Charles Keding, Alexander Weed, A. W. Forbes and Chas. Josselyn. Ben. Holladay has been elected president, and Charles Josselyn secretary of the club.

A FINE SPORTING FARM.—It will be remembered that Mr. E. S. Wannaker went to Virginia some two months ago to break dogs on game. He has recently returned, and here is the account he renders of himself:

HOBOKEN, N. J., Dec. 15, 1877.

The farm of our friends at Fort Defiance is well calculated for a sporting box, and affords every possible advantage by way of propagating and keeping game till wanted. Two thousand acres may be leased (the shooting privileges) for a bottle or two of whisky; and birds can be found sufficient in numbers at opening of the season (without stocking) to keep busy ten guns for thirty days.

There are plenty of deer and turkey in the mountain, and the climate is perfectly delightful and cool in autumn.

By a little attention paid to sowing coarse strong grass and allowing it to remain uncut, will render cover sufficient to keep the birds in the open entirely; and the wood is so thin that shooting therein is very easy. We made fair bags of quail daily, shot three ruffed grouse in wood near house, and they, the latter, are quite plentiful about one mile from the house.

Ducks were just putting in an appearance when I left. In parts of three days' shooting we bagged two deer and five turkeys in the Shenandoah mountains.

A party of Englishmen, camped about seven miles from us, twenty in number, with forty dogs, killed twenty-one deer in five days. We saw about 100 turkeys, but were too late for good shooting, as we had no dogs to run and scatter them.

Our shooting was from blinds along fences bordering buckwheat stubble, and the birds were very wary, having been much shot at.

Very truly yours,

E. S. WANNAKER.

THE TIGHT SHELL.—Mr. M. Hastings, of St. Louis, has executed an exceedingly clever picture, which he entitles "The Tight Shell." It tells its own story. There fly the ducks; there stands the dog ready to retrieve the birds, and what does the sportsman do? Why he fumbles and bothers, trying to make a cussed shell, whose circumference must be fully that of a quart measure, chamber into an ordinarily sized gun barrel. Under such circumstances a pious sportsman invariably repeats "Now I lay me down to sleep," religious recitations being peculiarly fitting for the occasion. All we can say of the original of the picture is that Mr. Budd's countenance is that of a hero under the most trying of all ordeals. We think we have seen a similar picture, or rather one on the same topic, the property of Mr. Zimmerman, of St. Paul's.

CAPTAIN BOGARDUS.—Captain Bogardus has just completed a week's engagement at the Olympic theatre, which was a most successful debut of this leading shot, there having been a full house in attendance every night. During the week Captain Bogardus shot at 232 glass balls, missing four. The great feat of the double shot was executed, the Captain springing his own traps. Captain Bogardus shoots this week on the east side, and is actively preparing for the great match, which is to take place at Gilmore's Garden on January 4th. After the match, Captain Bogardus will again appear at the Olympic.

SHOOTING CHALLENGES.—Dr. W. F. Carver, whose shooting has excited considerable attention in San Francisco, contemplates an Eastern tour, and has sent us several important challenges, which we shall publish next week. Captain Bogardus has already signified his intention of accepting the challenge in question.

—On Friday last, Mr. Ira A. Paine made a public record before an audience of breaking twenty-three glass balls in forty-seven seconds, the balls being thrown from one hand by Mr. Paine, and shot at with a Colt's army revolver held in the other hand. The balls were thrown at different elevations and velocities, no two balls being thrown alike. Mr. Paine remains at the London this week.

ABE. KLEIMAN'S GUN.—In reply to a correspondent, Dec. 13, we incorrectly stated that Mr. Abe. Kleiman used an Abbey gun. In justice to Messrs. Schoverling & Daly, the well-known gun makers of this city, whose gun Mr. Kleiman shoots, we hasten to correct the error and cheerfully publish the following letter:

Messrs. SCHOVERLING & DALY, New York: Over one year ago I gave the F. G. Abbey gun I was shooting to F. P. Taylor, Chicago, for one of your Daly guns. I do not want any better gun. It won fourteen prizes at the Nashville Tournament this fall. Always expect to shoot a Daly gun. Mine is not for sale.

Yours truly, ABE. KLEIMAN.

BURSTING OF A SHELL IN PRIMING.—Mr. E. J. Craze, of Kennebunk, Maine, had the fingers of his left hand badly lacerated by the explosion of a loaded shell which he was priming. He had the shell up to his face, levelling the primer preparatory to pressing it home, when it burst on the side opposite his face.

Z. B. C.

HOW TO SHOOT LOONS.—A Minnesota correspondent, Mr. J. N. Sanford, writes us from Elbow Lake, Grant County, and gives the following digest of his experience in shooting loons. He says:

"The loon (great northern diver) seems to some of your correspondents to bear a charmed life. I have hardly ever failed killing them in the water with shot; have killed at least six or eight with a common No. 10-bore shot-gun, and one or two with a Parker (same bore). In the spring and early summer they can be called near enough by initiating their lowest notes. If the imitation is poor they will come, provided the hunter gets behind grass or screen."

SCHUYLER, HARTLEY & GRAHAM.—Accustomed as we should be to catch the salient features of almost all things, and to represent them intelligibly to the popular view, in describing Messrs. Schuyler, Hartley & Graham's exhibition for the holidays, we find much greater difficulties than usual. Can any one fancy an establishment where a government could go to and say, "Furnish me with a hundred thousand or so of rifles, cannons, Gatlin guns, and ammunition, with sidearms, uniforms, everything in fact an army would want?" Such demands Messrs. Schuyler, Hartley & Graham could promptly meet. Now, on the other hand, suppose a dainty lady wanted to furnish her drawing-room with the most elegant of bronzes, including clocks, vases, china, Sevres, or Fayence, or majolica, or her boudoir with mirrors, or her toilette table with combs and brushes, the most delicate soaps, the most exquisite pen-funnery—at Messrs. Schuyler, Hartley & Graham's the most fastidious of her sex could not fail to find all she required. To catalogue simply all one can see at this wonderful establishment in Maiden Lane, would be absolutely bewildering. Almost every thing imaginable in the line of fancy goods is offered for sale. Here are beautiful leather goods, with jewelry of exquisite design, watches of the most celebrated makers, with ivory toilette brushes and combs fit to rival out the tresses of Venus. You go from floor to floor, and are amazed at the multitude of goods and their variety. Do you want a gun from \$5 up to as many hundreds?—here may be found every kind of fowling-piece made by either leading English makers or our native manufacturers. As to rifles, Messrs. Schuyler, Hartley & Graham exhibit on their racks every de-structive arm, from the one which made the Russian quail at Plevna to a squirrel rifle. Here are all the paraphernalia used by Masons, Knight Templars and Odd Fellows. As to uniforms, Messrs. S. H. & G. being manufacturers, can furnish a Major General's echaupo or a private's chevrons. When we visited this establishment, it was thronged with ladies making their purchases. Perhaps a similar grand display of goods cannot be found in the world outside of Maiden Lane, New York.

ALL THE CLEVER GUN-MAKERS ARE NOT OF TO-DAY.—AN OLD BREECH-LOADING FOWLING-PIECE.—Some months ago a correspondent informed us of a breech-loader a century old, belonging to those leading gun and rifle manufacturers, Messrs. Williams & Powell, of Liverpool, England. On addressing Messrs. Williams & Powell in regard to this arm, they have sent us an interesting description of the same. Reading this communication, and remembering the many hot





A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INSTRUCTION IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.

[POST OFFICE BOX 2382.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

#### Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, DECEMBER 27, 1877.

### To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS,

S. H. TURRILL, Chicago,

Business Manager.

Western Manager.

### A NEW YEAR'S GREETING.

Almost five years old! Why that is both young and old for a newspaper. Young are we then in heart as 1878 comes on us, and old are we only in experience. It is not out of place nor selfish at this moment for us to speak of ourselves, for the success of the FOREST AND STREAM AND ROD AND GUN is due to the hearty support we have received from every part of the country. In thinking then of ourselves, we naturally revert with gratitude to our innumerable friends, and to each and all we wish a Happy New Year. That auxiliary verb "may," we know is rather lavishly employed about this time of the year, "May you be prosperous," "May you be rich," are all phrases of speech much in vogue. Let us add ours: "May our readers in 1878 enjoy good health and be of a contented spirit, and when 1879 comes may all of you be united with us of the FOREST AND STREAM AND ROD AND GUN by the same ties of friendship, respect and good fellowship as now undoubtedly exist."

—Mr. James Brady has been our mailing agent ever since this paper has been in existence. Of course no human being is infallible, but we fancy that Mr. Brady makes fewer mistakes than almost anybody else. As a recompense to the boys in his employ, Mr. Brady presents every one this Christmas with a new suit of clothes.

—We are pleased to acknowledge a present from Mr. Alfred P. Jones, of Homosassa, Florida, of a Christmas box of grape fruit, a large and delicious variety of the citron family, which only needs to be eaten to be appreciated. Mr. Jones' winter guests are enjoying themselves at his quarters.

—THE FOREST AND STREAM AND ROD AND GUN makes an admirable New Year gift for a boy. It is a pleasure which is renewed fifty-two times in the year. We sell a \$50 paper for \$4.

FOREST AND STREAM may be allowed occasionally to indulge in a little self-congratulation on its enterprise and success in certain matters. We aim to publish, not merely a sporting paper in the ordinary acceptance of the term, but rather a journal which, devoted in the main, it is true, to out-door life, shall yet contain a large amount of information on various topics which could not be elsewhere obtained. The great prominence given in these columns to Natural History, Fish Culture and the Garden, and the interest taken in these departments by our readers, show that FOREST AND STREAM occupies in no small degree the position of a public educator. That we strive to fulfill the responsibilities of this office as its importance demands, the rich and varied character of the material to be found in our columns clearly shows. With what measure of success our efforts are crowned others must judge.

We have been led to those reflections by noticing that FOREST AND STREAM was the first publication to print Dr. Marsh's Nashville Address, the first number of which appeared in our columns immediately after its delivery. Of course there was a universal desire among scientific men to see this important paper, and as soon as it could be obtained the London *Nature* followed in our footsteps, and later, in its November number, the *American Journal of Science and Arts* gave the whole address, while we learn now that it is soon to be printed again by another scientific monthly. We merely mention these facts in order that the readers of FOREST AND STREAM may understand how anxiously we strive to bring before them at once whatever new or interesting matter appears in scientific circles or elsewhere.

Of the importance and value of the address to which we refer it is unnecessary to speak at length. We only quote the language of one of our most learned and most highly respected biologists, when we say that no scientific document which has ever appeared in this country contains an equal amount of new and important information. It is not alone because Prof. Marsh's Address is replete with novel facts, is a complete summary of all that has yet been done in this country in vertebrate paleontology, and traces in the most conclusive style the genealogy of many groups of animals that it is of value; the announcement of the various laws which the author has deduced from his studies is of still greater importance, and their establishment marks an epoch in science. The address, as a whole, is a masterpiece, which adds another laurel to the wreath which already encircles the brow of America's ablest paleontologist.

THE BEARS AND THE MEN.—We rather give a preference to the bears in a certain series of rough-and-tumble performances, which have lately taken place in New York, between two bears and Bauer and Regnier, the wrestlers. Now, if the bears had only a fair chance, the wrestlers would certainly get the worst of it, but the poor brutes, with a nose-ring and a rope, have not much fair play shown them. Such sports we deem essentially coarse and degrading, and, smacking as they do of the bear garden, all we have to say is that they pervert good taste and decency.

OUR THANKS.—We thank the clubs in Massachusetts and Michigan for their liberal subscriptions to our paper. In the marriage of the FOREST AND STREAM AND ROD AND GUN, we have not lost a single one of our friends or correspondents. Our contributors have ever remained steadfast. The only trouble is that at times our columns will not contain all the excellent matter furnished us. In a gill measure you can't pour a quart. Still, in due season, all contributed articles seek the light. But just now, had we the bulk of the *London Field* a good many capital articles would have to be left over.

THE AMERICAN MUSEUM OF NATURAL HISTORY.—The opening of the new Museum on Manhattan Square, this city, last Saturday, was an event of more than local or transient interest. The opening ceremonies were participated in by Pres. Eliot, of Harvard; Prof. O. C. Marsh, President of the American Association for the Advancement of Science; and the President of the United States. The presence of a large number of gentlemen eminent in learning and science, and representing the important scientific and educational institutions of the country was significant of the national importance of the occasion. The plan of the Museum is national in scope, and if the conception of its projections be perfected, the American Museum in New York will be to America what the British Museum in London is to England. We shall present in a future numbersome details of that portion already completed, and the structure as it will be when completed a generation hence.

SOUTH CAROLINA ORANGES.—We are enjoying a box of large and luscious oranges from the grove of Chas. G. Kendall, Esq., the proprietor of Palmetto Island, near Port Royal, South Carolina. They are exceptionally fine fruit, and superior to most of the oranges set to market from the Florida groves. From repeated annual tests and examination of the Sea Island region, we feel fully assured that orange culture can be made even more profitable there than in Florida, on account of its ready access to several markets. It has direct steam communication constantly with New York, and the voyage being much shorter the fruit can be forwarded in much better condition, and need not be picked so green. Mr. Kendall has selected his seeds and cuttings with great care, so that the quality of his fruit cannot be greatly improved. He invites the attention of orange growers to his groves.

GENTLEMEN'S GOODS, LORD & TAYLOR.—A great many of our friends residing in distant portions of the country, may be in want of what are generally known as gentlemen's furnishing goods. This category is a numerous one, it includes all a man wants either to make himself stylish with or to keep himself warm. It includes a Cardigan jacket to wear under a shooting suit, or a white satin tie, the sportman would want to be married in. Let then all who require such goods, go in person or write to our friends Messrs. Lord & Taylor, of 901 Broadway and 263 Grand St. If luxuriously inclined, Lord & Taylor have dressing-gowns and smoking-jackets, with railroad rugs, scarfs, plus, fancy ties, stockings, gloves, suspenders, shirts of every kind, make and color. No fuller line of goods is kept anywhere in the country, and all tastes and purses can be exactly suited at Messrs. Lord & Taylor. The house ranks among the first in New York, having been in successful existence for the last thirty years.

#### THE COUNTRY.

A weekly journal, devoted to the Kennel, Shooting, Fishing, Fox Hunting, Archery and other outdoor sports. Has also departments treating of Natural History, The Garden and Poultry, Pigeons and Pets. Edited by Wm. M. Tileston, 1stc associate editor of FOREST AND STREAM. Subscription price, \$3 per year. Specimen copies free. Address,

"THE COUNTRY PUBLISHING ASS'N,"  
33 Murray street, New York.—[Adc.]

#### GAME PROTECTION.

FORM OF TRESPASS NOTICE.—We print this as a very good form of notice to trespassers. It has been sent us by a Virginia friend:

#### NOTICE.

All persons are warned not to hunt, fish, trap or shoot upon the farm known as Conway in the County of Spotsylvania, Virginia. They are also prohibited from making a passway through the plantation with vehicle, horseback or on foot. This notice is for all, irrespective of color, race or previous condition. Those wishing to pass through the farm will do so only by special permission. Gentlemen wishing to hunt, as sportsmen, will have the necessary permission granted by making application at the residence of the undersigned. This notice will be posted at the County Court House and in three other public places, as the law directs, and any and all trespassers will be dealt with to the full extent of the law, upon every occasion, without fear, favor or affection.

June 1st, 1877.

R. M. C.

#### NATIONAL ACCLIMATIZATION.

CHICAGO, Illinois.

Mr. Editor—I wish, if you will give me the kind permission, to inquire through your columns of all lovers of nature throughout America, if the time has not arrived for the establishment of acclimatization societies in all our leading centres of wealth and intelligence, from Philadelphia to San Francisco, and from Chicago to New Orleans? I mean societies for the introduction of any useful or ornamental animal from abroad, calculated either to enhance or add to the pleasure and adornment of our country. I for one have been long looking for the coming of the good time, and think we now have the taste, culture and means to make a general start. The most obvious attraction on which to begin would be the singing birds of Western and Northern Europe. How delightful the thought to awaken and re-tune in America the voice of the charming singer, the lark—

or to add to our native singers the mellow-note of the English blackbird, the soft cadence, low, sweet and clear, of the thrush, or the rapid, gushing warble of that flashing beauty of the grove, the chaffinch. Such music saluting our ears would be a thing of "perpetual joy" to all, and awaken in the minds of many of America's noblest adopted sons ecstatic and blessed memories.

Desirable! every lover of nature will admit; but how far is this practicable? It is no doubt practicable. Experiments made at Cincinnati and elsewhere prove this. Then, let us really start our societies for the purpose of encouragement and means, and give the matter a few trials. Success, of course, will vary with localities. How I envy the dwellers on the Pacific in this respect; all the north European birds, including the song-lark, would no doubt flourish there. With us winter is the difficulty. But let me say, to those now looking for birds abroad, that easier success might be had with those from the north of Germany than those from Britain, as some of the desirable kinds in the former countries possess the migratory instincts sufficient to change locality far enough to avoid the too distressing effects of winter. In being transferred here would not this instinct come into use if needed? The main difficulty in the work is, I understand, the cost; but if a good number of societies were instituted they could work in harmony, and this could no doubt be much lessened. Perhaps some of the gentlemen, who have so distinguished themselves in the introduction and propagation of fish, would be glad to give their aid in the congenial work. The success of our societies in America would no doubt lead to the establishment of similar societies in Europe, and, eventually, a system of exchange might be adopted which would much lessen the expense.

Lovers of nature, respond; let us now start the work generally. There can be no doubt of success. The end will be glorious. He who causes a bird to sing or a bee to hum, where such a one never sung or hummed before, adds new voices to nature, and is a co-worker with the Creator in up-building the aesthetic side of the universe. These minstrels will sing requiems over our graves, and, for the added and sweetened melodies, coming generations will call us blessed. To work!

LESLIE.

[Our correspondent's idea is a good one, and deserves the thoughtful consideration of all lovers of nature. The matter is one on which we have often dwelt, and we take this opportunity of urging its importance once again. The efforts hitherto made in this direction have been for the most part individual efforts, and have not been successful. In order that future attempts should be more so, it is essential that importations of foreign species should be made on a large scale, and that the various societies now in existence or about to be organized should work together. Leslie's article contains a number of thoughts which we commend to all interested on the subject of national acclimatization.—En.]

DEER HUNTING AND BUFFALO  
SLAUGHTERING IN TEXAS.

NEW ROCHELLE, N. Y., Dec. 14, 1877.

EDITOR FOREST AND STREAM:

I learn through G. H. Ragsdale (one of your contributors), Gainesville, Cook Co., Texas, that five or six hunters from that city have just returned from their usual fall hunt near that place. Owing to heavy rains, they hunted but three days. They killed, of deer alone, forty-one, of which Capt. Rowland, the "Deer Slayer" of the party, killed twenty in two and a half days. This looks as if the deer are not yet quite gone there. I know they used to be very plenty in this region, and I have hitherto, through your columns, pointed out this, "the upper cross timbers," as the very paradise for sportsmen during the fall and winter. These grounds are within three or four days' ride from New York city. Wild geese also by the thousand (and, of course, ducks) were seen on the sand-bars in Red River, and ranging from 100 to 500 yards.

The question is asked me—how are the punts made and used? Will some one, who knows better than I do, please answer through your columns? Let some one give us a full article on punts; thereby we shall all learn. Heroin lies the beauty and strong points of your paper—it educates all up to the standard point. But to return.

Speaking of the buffalo, the *Texas New Yorker* for Nov. says, "The buffalo hunters in the camp on the headwaters of the Colorado River have over 20,000 buffalo hides now ready for hauling to the markets in the lower counties." These hunters have been sending off their peltries during all the past year. The wagon trains which go West to supply the frontier posts, are reported as returning loaded with buffalo hides. They pass through Mason, the county seat of Mason county, to the city of San Antonio; and also through Palo-piño, the county seat of Palo-piño county, to old Fort Worth, the county seat of Tarrant county (all my old stamping grounds), at which two points they reach the railroads, and where the skins find a ready market. The *Galveston News* estimates the number of buffalo killed within the past year by these Western hunters at 200,000. Only think of the number! It fairly chills the true sportsman's blood to think of this immense slaughter. I say true sportsman, for these are quite all pot hunters. Slaughtering these 200,000 noble animals! And for what? For their hides mostly; to sell them for \$1.25 each for poor shoe leather, and this when the meat of each animal is really worth \$20 to live on. Without pursuing this subject further, which does not fall within the purpose of this hasty letter, I cannot refrain from adding, in view of the happy past, how sad to think that our dear little children, when out on their merry rides with the sleigh, and when pinched with piercing winds and Winter's cold, will soon be able to enjoy the nice, soft warm buffalo robe of our earlier days no more. These robes are worth, at all times—whether in the camp, the house, or the sleigh, or on the land or the sea—about six good Mackinac blankets, as we can all affirm. Let us all arise, and declare for the robe and the buffalo.

When we shall come to lose this precious boon, the robe—as soon we must unless we cry aloud and spare not—then, indeed, will half the inhabitants of the globe sustain a great and irreparable loss, and one which cannot be remedied. Texas, especially, should be aroused to the importance of this subject. She should at once pass and rigidly enforce laws to protect her now very abundant game. Especially should she protect the buffalo, the most noble and gigantic wild animal of all our possessions.

MAJ. H. W. MERRILL.

For Forest and Stream and Rod and Gun.

## AFTER THE NEZ PERCES.

CANTONMENT AT TONGUE RIVER, M. T.,  
Nov. 25, 1877.

JOSEPH and his band, after marching through Idaho and Western Montana, visiting the National Park, and having various conflicts with the military—Regular and Volunteer—came sufficiently near to invite the attention of Gen. Miles at Tongue River, M. T.

Orders were issued. We crossed the Swift Yellowstone on the 18th of September, passed up a ravine, where two of Custer's men were killed by Indians in 1873, over a high plateau which gives commanding views in every direction, cast one long lingering look at the fair farms and waving handkerchiefs on the other side of the river, and our march began.

We soon reached the Valley of Sunday Creek, and passed through a camp of Cheyennes and Sioux, our enemies of last year, but now firm friends. They surrendered last March, and the only secret of their conversion, after fighting them, is summed up in one word, "Justice." Their main camp is near the post. They are treated fairly, have sufficient food, and from time to time small parties, with an escort of soldiers, have been permitted to go out hunting buffalo. In this way they have provided themselves with new skin lodges, and are better off in every respect than before their surrender. This camp has just started out for a hunt, and greet us with hearty "Hows," as we march by them. A ride of seventeen miles through dust, and our first camp was made.

Sunday Creek varies from a roaring torrent after heavy rains, to an insignificant thread of alkali water, which is the usual condition. As progress is made toward the head of the Creek, the water is found in pools, and these at long intervals. Our second day's march is again over a dusty trail, through barren, fantastic, bad lands, alternating with patches of luxuriant grass.

After making camp, several men go out hunting. The pickets report buffalo in sight. Result of the hunt, one black-tailed deer. A few jack rabbits were seen during the day, but there is so much cactus that dogs have no show.

The next morning ushered in a bright, lovely day. I bagged a splendid buck antelope, whose horns would have been a fine trophy, but some teamster, who had no appreciation in his soul, threw them out of a wagon after a few days' march. One young officer, who had never seen a buffalo in his native haunts, killed two, and it would require a Nast to do pictorial justice to the scene. All sportsmen can appreciate the feelings of an ardent hunter as he bags his first specimen. The command had a hard day's march, and camped on a branch of the Big Dry Fork of the Mo. River. Just at dark we heard the war song of thirty Cheyennes and Sioux as they came riding into camp. They are our allies on this occasion.

Each warrior has one or two extra ponies, which are not riden until in the immediate vicinity of an enemy. The loose ponies trot along in front, nipping the grass now and then. They don't present to the eye any indication of the fire within; but when the time arrives for action, sooner than I can tell it, the warrior strips for fight, catches up his favorite war pony, and, ye gods! what a change comes over rider and horse. The small snaky eyes of the former no longer look sleepy; they are flashing fire, while his pony pricks up his ears, dilates his nostrils, and darts off with the speed of the wind.

Our next day's march is over a rolling, picturesque country. We see recent signs, but no buffalo. Antelope are around us in great numbers. I knocked one over at the first fire; my orderly killed another. A great many were secured, and everybody had antelope for his supper.

We have rain in the night. Our beef cattle herd ran off; but on we march, leaving a cavalry company with the herdsters to bring up the strays when found.

We see plenty of buffalo, but orders have been issued to prevent firing. The lumbering fellows act as if they had received a copy of the order. They cross our trail, running between the advance guard and the next battalion. To accustom my horse to buffalo, I gave chase to one, and ran by his side for two hundred yards; but we have a long journey before us, and it behooves one to take good care of the beast that is to carry him in a chase after Indians.

If we can't do any shooting, we have the pleasure of seeing the Cheyennes kill a buffalo. Orders have no effect on our red allies. An Indian is as much excited over a buffalo as he is over an enemy.

We passed over a God-forsaken country to-day. For miles there was not enough grass to sustain a donkey. We camp in the Valley of Squaw Creek, and discuss the prospect of finding Joseph. Again, we have rain. As we travel down Squaw Creek we see fresh buffalo trails; some of them are worn two feet deep. The hills bordering the valley are covered with cedar and pine—fine places for black-tail and mountain sheep—but for the present we are intent on other duties. A steamer transfers us to the north side of the Mo. River. We learn that Joseph has crossed the Big Muddy two days before us. Ferrying a command over the Mo. River means hard work for the men. It is a tedious job. While this is going on, our camp is in a beautiful cottonwood grove on the left bank of the river.

It is evening. One battalion marches out of the valley, over the hills, the men singing as they go. With the camp fires, the scattered animals, the rumble of the moving train, the crack of the drivers' whips, the occasional scream of the steamer's whistle, and the song of the cavalymen as they march off, the scene is intensely interesting, and it is difficult to realize that we are in the wilderness. Next morning the balance of the command toils up the hills and follows the trail. The Cheyenne Indians wound an antelope and chase it down. We have a windy, disagreeable day. Next day we see plenty of buffalo. We make a noon halt to allow the wagon train to close up. Buffalo come among the mules and ponies, and quietly feed, looking up occasionally to see what their strange neighbors are doing. We march in the afternoon with the pack train, leaving the wagon train to follow more leisurely.

The Judith Mountains are to the southwest, while the Little Rockies are to the west and in front of us. Buffalo are on either side; one herd ran across the trail just in front of the column. Next day we have clouds and rain. We cross a branch of Milk River; Buffalo are all around us, and occasionally a herd dashes across our trail. In the forenoon we reach a gap in the Little Rockies. A swift-running stream, bordered by willows and filled with beaver dams, tumbles and dashes by, singing as it goes. Not far away there is a large pond upon which countless numbers of ducks plume their feathers, while others circle about in the air at the sight of their intruders. Some are lighting and dashing the spray; others are moving gracefully or taking wing. They need have no fear; we are not hunting ducks to-day. As we travel up the valley of the mountain stream, buffalo look in wonderment and dash across the trail, or leisurely walk over the hills.

The scenery is very picturesque—rolling, grassy slopes, ending in pine-covered hills on either side; pretty green valleys, hemmed in by precipitous, white, lime-stone walls, crowned by mountain pine; amphitheatres, terraces, ravines swift, clear streams, with beautiful little cascades made by the beaver dams;—these greet and charm the eye, and overcome all sense of fatigue.

There is evidently more rainfall here than on the prairie; the luxuriant bright green grass and abundance of water indicate it. The cactus and sage brush, our constant companions on the prairie, disappear. This would be a hunter's paradise. The water is palatable and wholesome; a very important matter. The majority of the water-holes and prairie streams are strongly impregnated with alkali. Besides the buffalo, elk, black-tailed deer, bear and antelope abound.

Next morning we had rain, but march as early as we can see to move, and go to the Bear's Paw Mountains, over a country which is much less interesting than the Little Rockies, although antelope and buffalo are seen. Much of the grass has been closely cropped by the vast numbers of buffalo recently here. As we approach the Bear's Paw there is an improvement. We camp in a valley near a pond filled with ducks. Two great hills tower high above us. It soon begins to rain in the valley, while snow falls in the mountains. Our scouts report the Indian trail not far away,

Sept. 30—Reveille at 2 o'clock A. M. The moon and stars shine in a clear sky, the air is chilly. We march as early as we can see to move. A wolf serenades us at our first halt by the side of a stream. We soon come upon the broad Indian trail. Our Cheyennes and Sioux undergo a sudden transformation; they are painted, stripped for fight, on their favorite chargers, and are a study for an artist. The picture lasts but a moment; they are bounding over the plain on either side of the column, which is now in rapid motion. To be astride of a good horse, on the open prairie, rife in hand, has an exhilarating effect on the majority of men. To be one of four hundred horsemen, galloping on a hot trail, sends a thrill through the body which is but seldom experienced.

It is not long before the sharp crack of the rifle greets the ear; volley after volley from Springfielders are answered by Sharps', Remington's and Winchester's. A Hochkiss Mountain gun, throwing a percussion shell, adds its roar to the general din. The bullets hum all the notes of the gamut, fit music for the dance of death; zip, zip, zip, thud, thud; the dirt is thrown up here and there, while others go singing overhead; riderless horses are galloping over the hills; others are stretched lifeless upon the field; men are being struck on every side, and some so full of life a few moments before have no need of the surgeon's aid. The explosive balls are not all on our side. One officer as he rides down the line is struck by a bullet which explodes, shatters the bone, tears a fearful hole in his arm and carries off a good portion of his ear. Our gallant commander, on a splendid steed, is here, there, everywhere. When the first horse is blown a fresh one is mounted, and off again. Three horses are ridden down during the day; their rider appears never to tire. The Indian herd, 7000 head, has been captured, their village surrounded, and we can take our time. In the afternoon a charge is ordered and gallantly made. It develops the fact that more warriors are opposed to us than we supposed. A regular siege follows. At the first attempt to talk with them the reply is, "Come and take our hair." A dreary night succeeds an exciting day.

Oct. 1—A cheerless morning, with clouds and wind and mist, succeeded by rain and, finally, snow. Early in the day we discovered in our rear two long lines of cavalry marching toward us on either flank. Were these Gen. Sturgis' troops, or the warriors of Sitting Bull? Many anxious moments were spent before we determined that they were buffalo marching in single file, with all the regularity and precision of soldiers.

The Indians were again halted. They come out with a flag of truce, and we see Joseph face to face. He is a man of splendid physique, dignified bearing and handsome features. His usual expression was serious, but occasionally a smile would light up his face, which impressed us very favorably. Several chiefs had been killed the day before, Looking Glass and Joseph's brother among them. Joseph appeared very sad; he was inclined to surrender, but did not have control of the entire camp. Joseph remained with us that night, while St. Jerome, Second Cavalry, remained in the Indian village. One wagon train arrived in the afternoon, bringing a twelve-pounder brass piece, which was of great service to us, as the Indians had been industriously digging rifle pits and holes for protection, which sheltered them from small arms very effectually.

When the firing began that evening there was great anxiety in regard to the fate of St. Jerome; but we learned next morning that the Indians had put him in a safe place, and said no harm should come to him if Joseph was returned safely to them. On the morning of Oct. 2 Joseph was exchanged for St. Jerome, who reports that there are at least 100 warriors in camp, and about 250 people altogether.

Oct. 3—The camp is moved to a better position. Firing begins with both field piece and small arms. We are in a snow storm.

Oct. 4—A disagreeable, raw, chilly, cloudy day; firing all day long. Gen. Howard, with two aids and a small escort, arrives in the evening.

Oct. 5 ushers in a beautiful morning. Firing was kept up all last night.

Joseph and several followers visit us again to-day. They are getting very tired of the siege; they don't like the big guns. The runners they had sent to the Assiniboins had been killed. The soldiers fired at them, citizens fired at them, Indians fired at them; they were ready to surrender, and soon afterward gave up their arms.

We begin our return march, Oct. 7, with 405 Nez Perces, from the octogenarian to the pappoose born during the siege. The country is rolling and picturesque, with snow and pine-covered mountains in the background. Sunshine and cloud shadows add to the beauty of the scene. The Indians clad in lively colors and strung out in a long line; the pack train, the pony herd, the mounted troops, the wagons, the wounded on travois, all combine to make an unusual and striking picture. Soon after camping dark clouds roll up, and lightning, thunder, wind and rain threaten to cause a stampede, but the storm soon passes over. Next morning dull clouds and rain, which finally pours down in a torrent, keep us in camp all day. It is interesting to watch the Indian boys at a game of mimic warfare. They take sides, select their ground, and each party mixes up a lot of mud. A piece the size of a marble is moulded and thrust on the point of a stick about three feet long, which is held by the opposite end, and by a sudden jerk the pellet is sent with considerable force and precision. They are experts in selecting cover, making feints, and taking advantage of any false move on the part of their opponents.

They are practicing a game which will train them for the real battles of the years to come.

Oct. 9—A pleasant day. The restriction in regard to firing has been removed, and antelope steaks are again seen at our supper table. Next day we have more buffalo around us; several are killed and the Indians are in great glee. The squaws, who are hideously ugly, are all animation and activity when around a carcass.

Oct. 11—A gala day among the buffalo. The Indians are in raptures over the prospect of repleto stomachs.

Oct. 12—A bright, clear morning. We pass over a hill which gives a fine view of the surrounding country. The Little Rockies loom up grandly. They will long remain pictured on my memory as one of the most delightful places that a hunter could visit. One man killed ten antelope, and others were very successful. The next day was chilly, cloudy and windy. Buffalo are in sight, as they have been for many days. A huge fellow attempted to cross our trail. An old squaw, with an emphatic gesture, exclaimed in Chenook jargon, "Seucom muc-a-muc." (Heap meat.) I fired two shots from my rifle, and at the second fire an annoying accident occurred, which never happened to me before, although it does happen occasionally. The head of the shell was torn off by the ejector, leaving the balance in the chamber. I took the orderly's carbine, and at the third shot finished the magnificent monster to the intense delight of the Indians. All three shots had taken effect. The tongue was handed over to me, while the rest was appropriated by the light-hearted followers of Joseph.

We arrived at the Mo. River in the afternoon, and the slow process of ferrying began. The majority of our wounded were sent down the river by steamer. An elk was killed at the mouth of Squaw Creek, but a short distance from camp.

Oct. 16—We start up Squaw Creek. A fine mountain sheep and three black-tailed deer were bagged during the day.

Oct. 17—A small hunting party go out to-day. I saw two black-tailed deer, and had a hasty shot at one. He came within 80 yards of me, but unfortunately two men were between the noble fellow and myself. As frequently happens, he was unconscious of his near proximity. An instant and he was gone. He was in sight again at 150 yards, but it was a farewell bound, and my shot did not stop him. He was such a splendid specimen that I had not the heart to grieve over his good luck. Seven mountain sheep were seen, and one enthusiastic young officer was determined to secure the head of the grand old ram, whose horns made one complete turn, and half of the next circle. The experienced hunter of the party said they would weigh sixty pounds. A long chase, and they got a good shot, wounding the ram and a doe. The seven were seen to go into a cedar thicket, and only five left it. The blood marks were distinct, but the thicket was full of fallen timber. They could not ride through it. They were so far in rear of the column that they could not trust their horses on the outside of the thicket, while they made a careful search on foot over a three-acre patch. They were liable to meet gentle savages, who had left their pipes of peace at home, and so they reluctantly retraced their steps and left the sheep to the wolves.

We had an illustration of the amount of lead an antelope can sometimes carry. One was struck seven times, twice with explosive bullets, before he stopped running. Two men who went to the right of that trail killed two fine black-tailed deer.

An officer who left us yesterday morning to examine the valley of the Mussel-shell River returned this afternoon. He had a detachment of ten men. They saw plenty of elk, black-tailed deer, antelope and two bears. The Mussel-shell is represented to be a splendid game region. It is the border land between the Sioux and Crows. A party who ventures there must be prepared to fight. Until recently no white man could go five miles up the Valley of the Mussel-shell without the risk of leaving his remains, minus his scalp, for the wolves.

October 18—We reach a branch of the Big Dry Fork of the Mo. River. Fewer buffalo and more antelope are seen on the march. October 19—We still have plenty of antelope about us. I saw a flock of sage hens. October 20—A pleasant morning. I killed a fine doe antelope at long-range. After reaching camp a herd of buffalo pass near, and a few of us gave chase. Two are killed, a fine cow and calf. I wounded one, but failed to bring her down, and after an exciting chase of four miles over a rough country I gave it up, much to the disgust of my orderly, who would have gone until his horse dropped in his tracks. It requires a decided effort to give up a chase which is thrilling to the rider, but death to his horse. It is a great abuse of horse flesh to run buffalo after a forced march of several hundred miles. The animals used for buffalo hunting should be led until the chase begins, and then a dash made, regardless of the ground. Any attempt to favor a horse at the beginning of a run only leads to a long and frequently fruitless effort. It is easy enough to catch the bulls; the cows and calves require good horses and bold riding to overtake them.

We could see two immense herds a mile away as we reluctantly turned our horses' heads toward camp, but the sinking sun warned us to loose no time.

We got into the Bad Lands, and meandered over a very rough, broken country, deep ravines, abrupt hills, fantastic mounds, yawning chasms—a very hell with the fires put out; but finally reached the open country, and were not long in making camp. The next day we made the head of the main branch of Sunday Creek. A great many buffalo and antelope were killed.

After a march of over 500 miles the command arrived at the caution on Tuesday, October 23. A lovely day. The scene was interesting and picturesque. The approach to the Post on the north side of the Yellowstone is over a high plateau, from which a road winds down a ravine to the river bank. First came the commanding officer and his staff, accompanied by Joseph and a few of his followers; then the advance guard, followed by Indians in picturesque groups; then the pack train and more troops, the wagon train and flanking columns, the pony herd and rear guard. As the command filed down the ravine, flags were unfurled, the band struck up, "Hail to the Chief," while cannon thundered forth a salute of welcome to the troops who had so successfully ended the campaign against the Nez Percés. RENSSEN.

#### OUR WASHINGTON LETTER.

CARP FOR SOUTHERN WATERS—A NATIONAL CARP HATCHING ESTABLISHMENT—VIEWS OF PROF. BAIRD, U. S. FISH COMMISSIONER—SALMON AND BROOK TROUT FOR MARYLAND WATERS, ETC., ETC.

[FROM OUR OWN CORRESPONDENT.]

WASHINGTON, D. C., Dec. 22, 1877.

The propagation of carp for the purpose of supplying the streams and ponds of the Southern States with this fish has occupied the attention of Prof. Baird, U. S. Fish Commissioner, for the past year, and the work has been pushed forward to a limited extent at the hatching establishment of the Maryland Fish Commission, in Druid Hill Park, near Baltimore. Arrangements are now being made, however, to prosecute the work with more vigor, and we are soon to have a National Carp Hatching Depot in this city. In the Monument lot, just south of the Executive Mansion, there are two large lakes covering an area of about ten acres, and a third one of the same extent can be made by constructing an embankment across the outer edge of a gully, bordering on the Potomac, which is filled at high tide and bare at low water. Prof. Baird for some years has been impressed as to the importance of the carp as a future element in the food supply of the United States, and I quote his reasons from a recent letter which he addressed to Hon. Henry G. Davis, a member of the Senate Committee on Appropriations:

"First, The carp is a fish which has been domesticated for a thousand years in Europe, occupying there and in China the same position among fish that poultry does among birds, being susceptible of cultivation in limited waters and thriving in sluggish and muddy lowland streams, entirely independent of the temperature; indeed, growing more rapidly and faring the better the warmer the water. I am satisfied there is no mill-pond in any part of the Southern States where the carp will not thrive. It grows very rapidly, attaining the weight of two or three pounds in the course of as many years, and is extremely hardy. The flesh is excellent, the better varieties in Germany bringing a quarter of a dollar a pound and ranking among the most esteemed species.

"The second merit or special qualification of the carp consists in its being a vegetable feeder and subsisting readily upon aquatic plants, whether they grow naturally in its vicinity or are planted for the purpose of furnishing its sustenance. In this it differs from the trout, black bass, and other favorite pond fish, which, in order to become of practical value as a food supply, must be fed with meat, involving more or less expense, especially in view of the fact that it takes from five to ten pounds of flesh to make one pound of trout or black bass.

"I do not think it possible to over-estimate the future importance to the United States of this fish; and as you are perhaps aware, I have already imported a supply of breeders for the purpose of distributing their progeny to different parts of the country. These are now kept in the ponds in Druid Hill Park, Baltimore; but the space allotted to them is entirely inadequate for the purpose of their satisfactory propagation and multiplication. In looking around for some more suitable situation, I am advised by Mr. Rudolph Hessel, an experienced cultivator of this fish in Europe, and who is in charge of those in Baltimore, that he has never seen a more favorable place for carp culture than is to be found in the two ponds on the Monument lot in Washington. If these had been constructed especially for the purpose they could not have answered it better, with a little additional labor."

In the Deficiency Appropriation bill which passed Congress last week is a clause appropriating \$5,000 for the purpose of adapting these ponds to the culture of carp, and it is proposed to so grade the bottoms of the ponds that the water can be drawn off from one or the other at will, and the fish secured for distribution. In one of them there is a small island covered with trees, and shallow basins will be excavated upon this island into which the breeding fish can be placed. The opinion is expressed that these ponds with the basins above mentioned for breeders would be quite equal to many first-class establishments for purely breeding purposes in Europe, where so much attention has been paid to this fish. The grading will be commenced at once so that the fish can be transferred at the earliest possible date from Baltimore to Washington, and there will be an extended distribution of young fish in the course of the coming summer.

It will be remembered that Prof. Baird in an interview with your correspondent last summer, spoke of the value of introducing carp into the waters of the United States, and especially those of the Southern States for which it is eminently suited; and though he thought the carp did not promise to be as valuable as the mackerel, shad or salmon, it would be a fish of great commercial importance, for the reason that many can be kept in a small body of water. The meat of the carp is very palatable, free from bones, and as a food fish it stands high. On account of its quick growth and great increase it is regarded as the most valuable of all fish for stocking ponds; besides, it is ornamental, being of a rich golden color.

Two importations of carp were made in 1875, but of an inferior kind. Unfortunately, on account of hot weather and overcrowded tanks, all but twenty-two died on the voyage. Subsequently all died but eight, and from this small number

several thousand were hatched in the ponds at Druid Hill Park. Last year Mr. Rudolph Hessel, a German fish culturist of note, arrived with forty-four from ponds bordering on the Danube, in Hungary. These were fish of a superior quality; and, later, another supply from the same ponds was received, all of which were placed in the hatching establishment at Druid Hill Park, and already many young ones have been distributed in Maryland waters. The ponds in this city to which they will be removed were constructed by Gen. O. E. Babcock when he was Superintendent of Public Buildings and Grounds, merely as ornaments to the public grounds, and they are used every winter for skating purposes; but the breeding of carp in them will not interfere with this amusement in cold weather. Sixty thousand young California salmon have recently been deposited in the headwaters of the Potomac river by Maj. T. B. Ferguson, the energetic Maryland Fish Commissioner. The first lot of 30,000 was placed in the tributaries of the Potomac in the vicinity of Fort Pendleton near Oakland, Garrett County, Maryland, and the second lot, of about the same number, in the Potomac, near Piedmont and Keyser, West Va. They were hatched in the breeding establishment at Druid Hill Park from eggs received from the United States salmon hatching establishment on the McCloud River, California. The work of stocking the Potomac with salmon was first commenced Professor Baird, the United States Fish Commissioner, about four years ago, when thirty-five thousand young fish were placed in the Coocogueague, a small tributary of the Potomac, near Chambersburg, Pa., and later in the same season 35,000 were turned loose in a small branch of the Shenandoah, near Winchester, Va. The young salmon were placed in the extreme headwaters of the river, because there were no black bass there to destroy them; and, secondly, to induce them to ascend the river as high as possible upon their return from the sea in subsequent years, as the salmon, like the shad, return to the streams in which they were bred. Another reason was, the waters of these tributaries are cool and clear, and well adapted to the growth of young fish. By the time they descend the stream on their way to the sea they have attained sufficient size to protect themselves against the ravenous appetites of the black bass. It is anticipated that the salmon first put in the river will soon make their appearance on their return from the sea, and they have by this time attained a weight of ten or fifteen pounds. It is supposed they return in four or five years from the time they were first placed in the stream, though difference in the temperature of the water, currents, etc., may have more or less influence upon their return, and make the period longer or shorter. When they do come, it will be with a rush, and they will, no doubt, be plentiful until the time for their departure for deep water. It is their habit, I believe, to remain in the vicinity of their spawning grounds about three months before again seeking deep water.

The work of stocking the Potomac, as well as other Maryland waters, has been carried on for several years past by the Maryland Fish Commission until several hundred thousand young salmon have been turned loose in the Potomac alone. Last year I think about one hundred and fifty thousand were placed in the tributaries of this river above the point of rocks, and in the course of a few years we may expect magnificent salmon fishing in this locality. Major Ferguson expects shortly to have a supply of several hundred thousand brook trout eggs in process of hatching at Druid Hill Park, which he will distribute to all persons who desire to stock their streams with this most delicious of all fish. Several fine trout streams in the Shenandoah Valley, of Virginia, have been stocked with the speckled beauties within the last few years, and the sport of taking them was enjoyed by quite a number of visitors to that section last summer. Persons interested in having the larger streams of Maryland supplied with fine fish are becoming concerned in reference to the laws of the State for their protection. It has been stated that large numbers of young salmon and other valuable fish have been destroyed by the seine-haulers and "pound net" fishermen during the past summer. In some of the creeks contiguous to the Susquehanna and on the Eastern Shore, which a few years ago afforded great quantities of the smaller varieties of table fish, there are now none whatever. Shad and other larger kinds of fish have suffered to a great degree, many of them being taken when too small for market in the seines, and allowed to perish and rot on the shore. The attention of the Legislature will be called to this subject, and a strong effort will be made by Major Ferguson and others to secure the passage of a law to protect, within proper limits, the valuable productions of Maryland waters.

The Virginia Fish Commissioners are also paying much attention to the propagation of salmon for the purpose of supplying the waters of that State. They have also lately entered into contract with several persons at Trout Royal, on the Shenandoah, to catch 1,000 black bass for the purpose of stocking suitable streams in that State with these game fish. R. F. B.

## The Rifle.

### TEAM SHOOTING.

FOR THE "FOREST AND STREAM AND ROD AND GUN" MEDAL.

Under the following conditions this journal proposes presenting to the best team, members to belong to some regularly organized association, a gold medal:

Shooting to take place January 23, 1878, at Union Hill Schutzen Park.

#### RULES AND REGULATIONS.

Each team to consist of twelve men; ten shots per man. Shooting, off-hand; distance, 300 yards, any rifle; open to all clubs or associations.

No person allowed to compete in a team unless he is an active member of the club for ninety days.

Practice from 10 A. M. to 1 P. M.

Team shooting to commence at 1 P. M. Targets to be drawn for by each captain of each team.

Entrance fee, \$6 for each team. Ring targets to be used, three-quarter inch rings. After deducting the expenses for the markers, the balance will be divided to the second and third highest teams.

Shooting to be governed by the Schutzen Bund rules. All teams can enter for the competition at the FOREST AND STREAM AND ROD AND GUN office, 111 Fulton street, city, on or before January 20, 1878.

Captains of teams entered will constitute the committee.

SHARPS' AND RIGBY—A CHALLENGE ACCEPTED.—In the Vol-  
unteer Service Gazette of Dec. 8th appears a letter from Mr.  
John Rigby, with the following paragraph: "To bring the  
matter to an issue; I am ready to arrange a match at 1,000  
yards between two men shooting with muzzle-loaders, and  
two men with American breech-loaders, the latter to clean at  
their discretion; but the prize to be awarded to the squad  
making the best score in a given time."

We have authority to state that Mr. John Rigby's offer has  
been accepted by the Sharps' Rifle Company. To-day's mail  
will carry a proposition to Mr. Rigby which, as it is pretty  
liberal in its character, we hope will be accepted. It remains  
on Mr. Rigby's part of course to agree to the terms. Later we  
will give publicity to the details, which we for the present  
retain.

YORKVILLE RIFLE CLUB.—The following made an average  
of inners (3) or more in the third competition for the Y. R. C.  
champion badge of the Yorkville Rifle Club, held at Washing-  
ton Park, Dec. 25th. Mr. J. L. Paulding won the badge for  
the first time.

Table with 2 columns: Name and Score. Includes J.L. Paulding, Pea Mar, A Smart Sn Spor, J.J. Reilly, W.J. Duff, J.R. Smith, G. See, Rem Mil.

At 100 yds. reduced Creedmoor target.

GLEN DRAKE.—The American Rifle Association opened  
Glen Drake Range, at Pelhamville, Westchester county on  
Christmas Day, to the public, with subscription matches and  
one all-comers' match, each 200 yards. Winners: 1st, Col.  
John T. Underhill, 19; Maj. G. W. Coburn, 19; John Wil-  
son, 19. Second, Col. Underhill, 20; Major Coburn, 20.  
Third, Major Coburn, 27.

MILWAUKEE, Dec. 19.—Several shots at 900 yard were  
made when it was hardly possible to see the target. The  
members were pleased to welcome Mr. John Meunier on the  
range, who, in a few shots, showed that he could make  
bull's-eyes as well as ever, notwithstanding the loss of one  
eye. The scores were as follows—fifteen shots at 800 and  
thirteen at 900 yards:

Table with 2 columns: Name and Score. Includes David Hill, H.T. Drake, E. Fielding, J.C. Weller, J. Johnston.

—We are pleased to announce that through their secretary,  
F. H. Jacobi, Esq., the Jersey Schutzen Corps will partici-  
pate in the FOREST AND STREAM AND ROD AND GUN match  
for a gold medal to be shot for on the 23d January, 1878.

—We acknowledge the receipt of the report issued by  
Colonel G. W. Wingate, General Inspector of Rifle Practice,  
and General John B. Woodward, Inspector-General of Rifle  
Practice by the National Guard of the State of New York.  
The present crowded condition of our columns prevents our  
giving an analysis of this interesting report, which we trust  
will receive ample justice in our next issue.

RECOIL AND UPSET OF BULLETS.

NEWARK, N. J., Dec. 4, 1877.

In your issue of July 5 we were allowed the honor of presenting to the  
numerous readers of the FOREST AND STREAM the subject of recoil,  
wherein we took the grounds that the real recoil in a gun did not take  
place until after the missile had escaped from it. Our claim was that  
the expanding column of gas forcing itself on the external air, and not  
directly the missile, produced the recoil; but it was admitted that  
the missile was a factor, in as much as the weight and retarding influence  
of the missile increased the density and consequently the power of the  
gas to produce recoil when the real object of resistance—external air—  
met. We did not claim that the gun was always absolutely motion-  
less while the missile was in transit through the gun, but that the slight  
pressure backward was to be ascribed to the advancing column of air  
preceding the missile, which was a sort of prelude recoil produced on  
the same principle as the final and more powerful recoil caused by the  
contact of the powder gases from behind the missile with the external  
air. Our theory was favored by some and opposed by others, both pub-  
licly and privately; hence it becomes us to stand in our proper light  
and show those that take the negative position the errors of their argu-  
ment.

Two or three opposing notices, robbed of their garbled quotations and  
reflections, present their points in a comprehensive manner, but to re-  
move their underpinning and let their fabric fall will show the weakness  
of other like structures. J. F. P. in the FOREST AND STREAM of July 26,  
1877, writes the following: "If an individual stand on a skiff on  
water and push against another vessel of like weight and like size the  
force will be equalized and both vessels will move from each other ex-  
actly the same distance and at the same rate of motion; but if the ves-  
sel on which you stand be four times the weight of the one you are  
pushing you will only move about one-fourth as far as the other." This  
is a scientific fact showing the influence of one body upon another when  
separated by expansive force (action and reaction), which was most  
beautifully and mathematically illustrated by D. D. who very ap-  
propriately presents the subject by the introduction of a gun, as fol-  
lows: "If a gun thirty-two inches long weighing ten pounds discharges  
a missile weighing one ounce at 1,600 feet in one second, while the mis-  
sile is passing the gun, the gun will recoil one-fifth of an inch." This,  
also, would be true providing the gun and missile were separated when  
the expansive force was applied, but they are not, and neither of these  
illustrations any more represent the action of a missile in its transit  
through a gun than would standing on one's head. In order for both  
bodies to be thus separated by expansive force they must be both sub-  
ject alike to the same elements of friction. Is the missile, while drag-  
ging on the inner walls of the gun, thus subject to the same elements  
of friction as the gun itself? We will see! We will take J. F. P.'s  
"Skiff on water" and call it a gun, and lay him on the bottom of it at  
the stern (bush pin) and call him the missile, a pole or any other agent  
with which he can apply expansive force we will call the powder.  
Now, while lying in this position, let him apply to the breech pin (stern)  
the expansive force (powder) and force himself to the fore (muzzle), and

if he can force the skiff back fairly one fraction of a hair he can lift  
himself by the waistbands of his pantaloons. For D. D. I would sus-  
pend two platforms by a cord at each end of equal weight, so that they  
would touch on one. I would place a large gun of some light material,  
say of tin, that would be just equal to D. D.'s weight, twice his length and  
would admit him in person. The muzzle of this gun I would have  
placed even with and looking out upon the contiguous platform. Into  
this gun, down to the breech, we would have D. D. place himself, and  
by any sort of expansive force applied to the breech he may be pleased  
to use, he will force himself to the muzzle. During this process he  
will not move the gun back, but on the force being continued and he  
being landed on the contiguous platform, the two platforms will be sepa-  
rated just equally. This experiment clears up two points. First, it  
shows that the philosophy by which bodies are separated by expansive  
force is not applicable to the transit of a missile through a gun. Sec-  
ond, that even though the missile is half the weight of the gun the gun is  
not forced back while the missile is in transit. Neither would it if it  
were possible for the disparity, if the missile weighed a ton and the gun  
but a pound.

In FOREST AND STREAM of Nov. 29 will be found some excellent re-  
marks by Geo. H. Ferris upon the merits of breech and muzzle-loaders  
and the upset of bullets. In his reference to my contribution to F. and  
S., published a few weeks since, as follows: "'Straight-bore' gives  
the idea that the upsetting of bullets is of recent discovery," is a mis-  
conception. It is true that bullets were known to expand in the  
breech of the gun twenty-five years ago, but did they recognize the fact  
that bullets also encountered a force in front that mashed them as if  
pressed between the cushioned jaws of a vise? The forecrown front was  
our principal point, since the force behind was well enough understood.

In articles to Rod and Gun, and finally to FOREST AND STREAM AND  
ROD AND GUN, I had represented this force (air pack) which had been  
responded to and questioned by men of apparent reading and intelli-  
gence, which led me to question whether the fact had been previously  
said, since I myself had not seen anything printed, or heard anything  
said upon the subject before being introduced by myself.

When I first introduced this subject of "air pack" I had reached  
the fact through abstract reasoning upon the forces at play in the firing  
of a gun; but I was so thoroughly convinced that such a force was  
present that to convince others I, through a rifle-shooting and a rifle-  
making friend, had instituted a series of experiments.

The first experiments were with lead conoids of 230 grains, solid hex  
muzzle-loading rifle. The experiments were commenced with small  
charges of powder which did not mash the missile, and the powder in-  
creased until the upsetting was manifest, when the charge of powder  
was noted. The powder was increased until the missiles were mashed  
like putty at the front. The heels of the missilee show but little if any  
evidence of violence when compared with those that had not been fired.  
To prove the fact still further, the same experiment was gone through  
with Creedmoor missiles containing 1-32 tin.

In order to separate the upset in front and the upset at the heel of the  
missile the inner chamber at the heel had inserted in it a snugly-fit-  
ting piece of hard wood. As soon as these missiles began to upset  
(mash) there was a neck formed in the missile exactly corresponding  
to the wooden plug effectually separating the two forces, viz: the up-  
setting force behind, from the powder, and the upsetting force in front  
from the air pack, or consolidated air in the gun. Mr. Ferris calls this  
air pack "reaction." I don't object to the term so long as he recognizes  
the cause—air pack.

A bullet could be upset by a blow from some solid agent with no other  
resistance than its own inertia, but this is not the case in the gun, but  
is upset from an accumulated force in front which may be proved by  
his own experiments. A force that upsets a missile in a pistol barrel  
will rarely upset one in a rifle barrel, but a force that will upset one in  
a rifle barrel may not upset one in a pistol.

Some fine quick elements of powder will burn up in a barrel two or  
three inches long, while other sorts, slow, would require a barrel per-  
haps two and even three feet long to consume it, and yet, in the proper  
length of gun, would make good shooting. 100 grains of gunpowder  
yield about 75.69 cubic inches of gases, and a gun barrel with a greater  
capacity than that will never discharge the missile with that amount of  
powder; and where the powder is fine and sudden in its explosion it  
will expend a large proportion of its force on the walls of the gun, on  
the missile, and in accumulating resistance by packing the air in front;  
consequently it is a failure in shooting except in pistols, and as shown  
by Mr. Ferris it may be made too quick for them even.

There was only a little hair standing up between Mr. Ferris and my-  
self, that was hardly worth splitting, and what I have written has been  
more in a spirit to call attention and add testimony to the excellence of  
his paper than otherwise.

STRAIGHT-BORE.

THE SCHOVERLING & DALY GOLD BADGE.

NEW YORK, Nov., 1877.

EDITOR FOREST AND STREAM:

We feel convinced that the attention of rifle experts, and those who  
wish to learn how to shoot the rifle, should be called to the benefit to  
be derived from practice with .22-cal. rifles. Such rifles are made quite  
as carefully and accurately as any short or long range rifle. At this  
season, in most sections, out-door shooting cannot be carried on, and  
the practice necessary to enable the marksman to enter the field in  
the spring with more skill and precision than when he left it in the  
fall, can only be had with perfect shooting during the winter with a  
.22-cal. rifle. There are thousands of young men likely to swell the  
number of rifle shots, who are deterred by the expense and time  
attending a long practice necessary to qualify them to enter matches,  
on account of the high cost target rifles. A few months' practice  
at reduced targets, with 3 lb. pull rifles, will enable any one who has  
the possibilities of a good shot in him, to enter at once in the spring  
into the ranks of the off-hand shots.

Our Ballard Gallery Rifle is a really perfect shooting .22-cal. Mr. J.  
S. Conlin, who has given more attention to gallery shooting and spent  
more money to get perfect shooting rifles than almost any other  
person sees the Ballard gallery rifle, and the good shooting of this rifle  
is corroborated by hundreds of the best shots.

What we would suggest is that in places where there are no 100-  
feet galleries, that clubs shall build them and keep them open after-  
noons and evenings for practice and weekly matches; also, that new  
clubs be formed who should patronize existing galleries or furnish  
their own rifles. This communication was suggested by the formation,  
a few weeks ago, of the New York Rifle Club for off-hand shooting, of  
which Mr. Chas. E. Blydenburg, the well known rifeman, is the lead-  
ing spirit. This club, which will no doubt take a front rank among off-  
hand clubs, has weekly matches of different kinds at Conlin's Gal-  
lery. The interest in the off-hand shooting, it is true, is increasing  
very rapidly, and the advantage of such practice is commencing to be  
better understood.

In order to bring this matter before rifemen, we will offer a gold  
badge to be shot for with .22-cal. rifles at 200-yard targets, reduced to  
100-feet, Creedmoor rules, on a certain evening all over the United  
States and Canada. As there may be some difficulties in having  
proper rules for determining scores, we should be glad to have  
the suggestions of the readers of the FORESTS AND STREAM in regard to  
the matter.

SCHOVERLING & DALY,  
84 and 86 Chambers street, New York.

MUZZLE-LOADERS VERSUS BREECH-LOADERS.

SYRACUSE, N. Y., Dec. 10, 1877.

EDITOR FOREST AND STREAM:

Dear Sir—In your issue of Nov. 29 I read with much satisfac-  
tion an article from the pen of Mr. Geo. H. Ferris, of Utica, N.  
Y., on the "Upset of Bullets," wherein he discussed at some  
length the relative merits of breech and muzzle-loading rifles.  
To the facts and opinions therein contained I shall not al-  
though except to approve, for the points that he touched upon he touched  
with a master-hand. I should have been pleased had he gone  
more into detail and given some of the reasons for the wide-  
spread and growing popularity of breech-loading guns, as com-  
pared with that of muzzle-loaders.

First, they are generally manufactured by large companies,  
who can afford to keep men lying around rifle ranges to become  
experts in the use of their guns, and thereby make a reputation  
for them. Second, they are more convenient, and, having their  
ammunition already prepared by skillful hands, they are preferred  
by a class of men who elude for pastime, and who, being able ex-  
perts with the pen, like to make a record of their achievements.  
There is also a class of men who contribute to their popularity in  
another way, and whose positions are well defined in the follow-  
ing extracts from Col. Peel's report to the N. R. A. of Great  
Britain, of the international match at Creedmoor. After express-  
ing his belief in the superiority of the breech-loader, he says:  
"To the gunmakers I would say, Do not stop to discuss the  
merits of your respective muzzle-loaders, but go with the times,  
and do not rest satisfied till you have produced a practical breech-  
loading rifle that will beat all the muzzle-loaders and breech  
loaders ever yet made." To the council of the N. R. A. I would  
say, "Whether you wish to encourage team shooting or not, hold  
out every inducement to the production of the best breech-loading  
rifles." And, still further: "Above all, set your face against the  
further use of muzzle-loaders, even if proved to be better for  
match purposes than our present breech-loaders. The former  
are relics of a by-gone age, and the chief obstacle to all improve-  
ment in a practical direction." This sufficiently shows the bias of  
the writer, and there are many like him who have a lingering  
distrust that the muzzle-loader may be the better gun for accurate  
shooting; but it is old now, and therefore it must be kicked out of  
the way to make room for their new-born pets.

I freely accord to them the right to advocate the claims of the  
breech-loader, but in all fairness they should rest them on their  
actual merits, and not claim for them a superiority of shooting  
qualities which has not yet been established by any proper test.  
Many persons who would otherwise prefer the muzzle-loader have  
been misled by this system of puffing and forcing the claims of  
the breech-loader, and have adopted it under the mistaken im-  
pression that it was best for long-range shooting. I freely admit  
that the best breech-loading rifles (with the ammunition as pre-  
pared for them by the makers) will beat the majority of muzzle-  
loaders at long-ranges. This is not because they are loaded at the  
breech, but is entirely due to the length and form of the bullet,  
and the manner of patching it, provided always, that the twist of  
the gun is sufficient to handle such projectile properly. The  
secret of their supposed superiority over the muzzle-loader lies  
in the fact that they shoot a cylindrical or bolt-shaped bullet of  
great length, as compared with the conical ones generally used in  
muzzle-loading guns. These bolts being much heavier than a  
conical bullet of the same length, and not encountering any more  
resistance from the atmosphere in their flight through it, it fol-  
lows that if discharged from the gun at the same velocity, they  
will retain that velocity longer, or, in other words, have greater  
force toward the last end of a long flight. Heretofore it has been  
the common practice with the best muzzle-loading rifles to patch  
the balls with a round patch of sufficient size to cover the ball  
from one-quarter to three-eighths of an inch in length, according  
to size of calibre. This necessitates the use of a comparatively  
short bullet, because if a long one be used you must increase  
the length of bearing proportionately, in order to insure accu-  
racy while being discharged from the gun. If the round patch is  
cut large enough to cover a longer bearing on the bullet, there  
will be so much cloth that the wrinkles or folds in it cannot be  
properly adjusted to the grooves in the gun. Hence, a very long  
bullet cannot (with a round patch) be properly fitted to the gun,  
and consequently cannot be made to shoot well at any distance.  
This difficulty is now happily overcome in the Warner muzzle-  
loading rifle, manufactured by Nichols & Lefever, of Syracuse, N.  
Y. They have a style of muzzling their guns and cutting the  
patches, which enables them to fit a bullet perfectly to the gun  
with any desired length of bearing. This enables them to shoot  
a ball as long and as cylindrical in form as any breech-loader can  
shoot. Their bullets are made in two parts and swaged together;  
the butt end of soft lead to fill the grooves of the gun, and the  
front end of a compound of lead and antimony, so hard that the  
action of the powder will not upset it. These bullets, in loading,  
are forced into the gun with a guide starter, which fits them per-  
fectly to the gun, with the point true to its centre; and as their  
form is not changed by the force of the powder in being discharged  
from the gun, they are delivered from it with less friction, greater  
force and more uniformly than can be attained by any bullet de-  
pendent upon the action of the powder to fit it to the gun, as is  
the case with all breech-loaders. I quite agree with Mr. Ferris  
that there has been no satisfactory test in this country as to the  
relative merits of breech-loading guns, and what we call proper  
muzzle-loaders. Further, I do not believe that the makers or ad-  
vocates of breech-loading guns desire to make any such test. If  
any of them do, and wish to make it in a manner that shall be de-  
cisive, they can find an opportunity to do so by addressing  
MUZZLE-LOADER,  
Care of Windsor House, Syracuse, N. Y.

[We give our correspondent, "Muzzle-Loader," full space  
to promulgate his views, and it is but fair that we should do  
so, for it must be remembered that a great many sensible peo-  
ple in England, Ireland and Scotland still believe that muzzle  
loading rifles are better than breech-loaders. Our own opin-  
ion we have stated innumerable times. Will any of our  
breech-loading manufacturers take up "Muzzle-Loader's"  
challenge of battle?—Ed.]

## Sighting and Boating.

### HIGH WATER FOR THE WEEK.

Date.	Boston.		New York.		Charleston.	
	H.	M.	H.	M.	H.	M.
Dec. 28.....	5	41	2	30	1	40
Dec. 29.....	6	42	3	27	2	41
Dec. 30.....	7	44	4	28	3	42
Dec. 31.....	8	40	5	30	4	44
Jan. 1.....	9	28	6	23	5	43
Jan. 2.....	10	18	7	15	6	33
Jan. 3.....	11	49	8	03	7	22

### DANGEROUS VOYAGES.

When one reads of voyages made across the ocean in a cockleshell one must at least give the adventurous mariner credit for pluck and seamanship, though sensible people do not look at such dare-devil exploits in the same light.

Hardships which lead to no permanent good, though they may call into play individual heroism, may be regarded as so much loss of time and energy. Looking over the list of those foolhardy people who have navigated the ocean in small craft, we may make one notable exception, and that is in regard to the trip made by the Red, White and Blue. This was a life-boat, and an experiment of a crucial character was to be tried. This cylinder raft determined the fact that the system was an excellent one, was adapted to the end intended, and the reproach of foolhardiness cannot be advanced against those who sailed her across the Atlantic.

We now give briefly a short account of these voyages in modern times. Some twenty years ago a Cunard steamer met in mid-ocean a wee boat with two men on board. That the people on board of her wanted no aid was positive; they simply signalled latitude and longitude, and having obtained this the crew in the boat stood on their way. Who they were, where they came from, what they were after never was known. This boat and crew is one of the mysteries of the ocean. In 1850, three Cornish fishermen—and a brave, hardy, but not foolish set of men are they—took a long voyage. These mariners sailed from Penzance to the Cape of Good Hope that they would have had enough of it. Not at all. They staid a short time at the Cape, then they trimmed sail and struck out boldly for the Indian Ocean, and hauled up finally all safe and sound at Melbourne.

In 1866 a lugger of twenty tons, hailing from Dublin, cleared for Liverpool and New South Wales, and made the run safely, some sixteen thousand miles, in 160 days. As they could not have eailed in a straight course, the average of speed must have been fully 130 miles a day.

The trip of the Red, White and Blue we have already adverted to. She sailed from Sandy Hook on the 9th of July, 1866. All hands arrived in England safely, save one poor dog, who died of sea-sickness.

It was Alfred Johnson who, in 1876, was idiotic enough to sail from Gloucester in a boat with himself as Captain and crew. About one hundred miles from the coast of Ireland captain and crew were upset in a gale, and his escape was miraculous. After having suffered terribly, Johnson landed at Abercastle, off Pembroke-shire, after being 77 days at the mercy of the waves.

The last lunatic was Thomas Crapo. Now a man has a right to drown himself—perhaps his mother-in-law—but not his wife. We cannot pretend to solve the question how Thomas Crapo induced his wife to sail with him. It might have been for affection sake, or because he wanted ballast or something to argue with. Anyhow, this adventurous couple put out from New Bedford on the 23rd of May, and reached Penzance on the 21st of July. So ends the list of hair-brained people. We sincerely trust we may not have to chronicle any more such escapades. There are so many simpler methods of committing suicide that one wonders at this complicated way of courting a miserable death in a small boat.

—Capt. Engh's steam yacht Passport, 85 tons, from New York for Jacksonville, blew her boiler out on Frying Pan Shoals on the 21st inst., and put into Wilmington for repairs.

HANLON.—Hanlon, the champion oarsman of Canada, has challenged Schaff, of Pittsburg, for a race next June.

HALF A TON OF WILD FOWL.—Mr. E. Clement Smith and Dr. Hanford, of Winnipeg, Manitoba, recently returned to that city from Dakota and Minnesota, three weeks of which time were spent in active hunting. They were successful in winning a wager that the result of their tour would be half a ton of wild fowl alone, whereas considerably over that weight was bagged.

## New Publications.

THE AMOURS OF PHILIPPE: a history of Philippe's love affairs, by Octave Feuillet, translated from the French, complete and unabridged, by Mrs. Mary Neal Sherwood. Published by T. B. Peterson & Brothers, Philadelphia.

It can be said of Octave Feuillet, as of very few contemporary French novelists, that he writes for the world and not simply for Paris. He writes of French life, but of a life which Americans can understand, and not in that ghastly melodrama which is so foreign to all our natural sympathies, but which is brought before us again and again in the work of all the Parisian novelists of the day. This, his latest romance, has just been completed in *Le Revue des Deux Mondes*, in Paris, and charmingly translated for Peterson's American edition, and is as strong and as earnest as any of the stories that have made Octave Feuillet's world-wide fame. It must have a large sale, as the price of it is but Fifty Cents a copy, and it will be found for sale by all book-sellers, and on all Railroad trains, or copies of it will be sent to any one, to any place, post-paid, on remitting Fifty Cents in a letter to the Publishers, T. B. Peterson & Brothers, Philadelphia, Pa.

## Rational Pastimes.

NEW YORK ATHLETIC CLUB.—The first annual winter meeting of this club will be held at Gilmore's Garden, Jan. 4 and 5. There are a large number of entries, and the various contests promise to call out some of our best athletic material.

POLICE ATHLETICS.—The Police Athletic Club has developed a great deal of latent athletic power. The police gymnasium is filled each afternoon with a large number of muscular young fellows, training for the competition games, which are to be held at Gilmore's Garden, Jan. 7th. The sports will consist of walking, running, wrestling, boxing and fencing. A bicycle race for the championship of America is to be the novelty of the evening.

VIRGINIA FOX HUNTING.—Mr. Page McCarty writes to us from Richmond, Dec. 21:

I went out twice during last week or so, and saw some good riding in Hanover and Chesterfield counties. On one day there were forty-four dogs (the Ashland pack, the Hanover and one private one). You would be surprised to hear from gentlemen who have hunted in England, that the hounds and the general style and boldness of the hunting here is much better—only lacking the scarlet coat and stylish make-up.

—A very old but good story has just been rehearsed in the columns of the *Land and Water* by Mr. W. H. Webb. In substance it is as follows: Dr. Fothergill, an English botanist and physician of note in the eighteenth century, successfully treated a ship Captain who arrived at London ill of yellow fever. The doctor would take no money for his services, but requested the captain to bring him two barrels of earth from Borneo. At length the earth was brought, and the doctor, having burned the surface of a piece of ground very thoroughly, sprinkled the Borneo earth upon it. The result was that 100 different sorts of new and curious plants sprung up. These novelties in floriculture, including geraniums, have since been diffused throughout the gardens of England. In these days when the introduction of new plants is so sedulously pursued, it is surprising that the method of Dr. Fothergill has not been more extensively tried, as communication with tropical regions of germ-charged soil is infinitely more frequent now than then.

SNORING METAPHYSICALLY AND PHONETICALLY CONSIDERED.—We print the following from the *Burlington Hawkeye* as a fair example of genuine American humor. Who else would ever have thought of spelling a snore? Phonetics have won.—Ed. F. AND S.]

It was in the Cedar Rapids sleeper. Outside it was dark as the inside of an ink bottle. In the sleeping car people slept. Or tried it.

Some of them slept, like Christian men and women, peacefully and sweetly and quietly. Others slept like demons, malignantly, hideously, fiendishly as though it was their mission to keep everybody else awake.

Of these, the man in lower number three was the "boss." When it came to a square snore with variations, you wanted to count "lower three" in, with a full hand and a pocketful of rocks.

We never heard anything snore like him. It was the most systematic snoring that was ever done, even on one of those tournaments of snoring—a sleeping car. He didn't begin as soon as the lamps were turned down and everybody was in bed. Oh, no. There was more cold-blooded diabolism in his system than that. He waited until everybody had had a little taste of sleep, just to see how good and pleasant it was, and then he broke in on their slumbers like a winged, breathing demon, and they never knew what peace was again that night.

He started out with a terrific "Gn-r-r-r!"

That opened every eye in the car. We all hoped it was an accident, however, and trusted that he wouldn't do it again, and all for-

gave him. Then he blasted our hopes and curdled the sweet serenity of our forgiveness by a long-drawn

"Gw-a-h-h-h-h-h!"

That sounded too much like business to be accidental. Then every head in that sleepless sleeper was held off the pillow for a minute, waiting, in breathless suspense, to hear the worst, and the sleeper in "lower three" went on, in long-drawn, regular cadences that indicated good staying qualities.

"Gwa-a-ah! Gwa-a-ah!" Gahwahwah! Gahwahwah! Gahwah-a-ah!" Evidently it was going to last all night, and the weary heads dropped back on the sleepless pillows, and the swearing began. It rumbled along in low, muttering tones, like the distant echoes of a profane thunderstorm. Pretty soon "lower three" gave us a little variation. He shot off an epithet

"Gwook!" Which sounded as though his nose had got angry at him and was going to strike. Then there was a pause, and we began to hope he had either awakened from sleep or strangled to death, nobody cared very particularly which. But he disappointed everybody with a guttural

"Gurooch!" Then he paused again for breath, and when he had accumulated enough for his purpose he resumed business with a stentorian

"Kowpf!" He ran through all the ranges of the nasal gamut, he went up and down a very chromatic scale of snores, he ran through intricate and fearful variations until it seemed that his nose must be out of joint in a thousand places. All the night and all night through he told his story.

"Gawoh! gurrah! gu-r-r-r! Kowpf! Gwahwah! ga-wah-hah! gwock! gwart! gwah-h-h-h-h-h-h-h-h-h!"

Just as the other passengers had consulted together how they might slay him, morning dawned, and "lower number three" awoke. Everybody watched the curtain to see what manner of man it was that had made that beautiful sleeping car a pandemonium. Presently the toilet was completed, the curtains parted, and "lower number three" stood revealed.

Great heavens! It was a fair young girl, with golden hair, and timid, pleading eyes, like a hunted fawn's.

AN EPISTLE FROM THE MAN OF UZ.—A Virginia correspondent, who has been slightly under the weather, sends us the following plaint of his unhappy condition. We are very sorry that he did not apply to us sooner. We know of several very effectual remedies, all of them vouched for by elderly unmarried aunts, which we should be only too happy to suggest did our space allow. We shall, however, publish our correspondent's address in full, with the request that each one of our readers may contribute every remedy known to himself or friends:

"Unfortunately I have not been able to shoulder arms this fall. I had bilious neuralgia in the head in July, then typhoid fever, and that left me with a breech-loading choke-bore concentrated neuralgia in the left hip joint, which prevents me from rising over the flats and far away. Hope soon to be clear of it. If I had tried all the remedies suggested I should have been on the outside of two druggist shops, six lemon trees, and had on my outside a few square miles of plaster, a James River freshet of cold water, a box of wet towels, three horse hair gloves, one electric battery, and now, confound it! I suppose you will, in the interest of your advertisers, be poking prairie or sod oil at me. Say, mister, did yer ever have a misery in your chest? I tried to-day to get up a club of twelve to divide aches and pains with me, but they all said it was more blessed to give than to receive, and they didn't feel like receiving."

[We relent, and withhold the address.—Ed.]

—M. C. Husson gives the following test for butter suspected of having been adulterated with fatty matters: A given weight of butter and 10 parts of a mixture of equal measures of ether at 66 deg. C. and of alcohol at 90 deg., are formed into a solution in a water bath raised to a temperature between 35 deg. and 40 deg., and then cooled down to 18 deg. After the solution has been standing for twenty-four hours, pure margarine will be deposited. If the deposit does not exceed 40 per cent. or fall below 35 per cent., the butter is genuine; but if is larger than the higher percentage, tallow has been used as an adulterant, and if it is smaller than the lower percentage, the presumption is that the natural butter had been sophisticated with lard, goose-grease, or some similar substance.

—Cockroaches, it appears, have become exceedingly numerous in some parts of France. So grievous is the plague of these insects that the people have adopted some singular expedients for relief. Toads have been introduced into not only the gardens, but the dwellings, and ladies are said to have even made pets of toads for the protection they afford. But one of the best results of the

plague is that the people have taken to the rearing of the nightingales as an ally against the cockroaches.

MESSRS. TIFFANY & CO., UNION SQUARE, NEW YORK City, have made extensive preparations for the approaching HOLIDAYS.

Their Stock of Diamonds, Watches, Jewelry, Silverware, Bronzes, Pottery, Stationery, and Fancy Articles, is the largest and most varied in this country, and includes novelties from abroad and choice goods of their own manufacture, not to be found elsewhere.

A special department has been organized for sending goods to persons at a distance from New York, and any one known to the house, or naming satisfactory references, can have careful selections sent for inspection.

They have lately published a little pamphlet containing a condensed account of each department, and lists of articles appropriate for presents, which they will send to any address on request.

## Piper Heidsieck

AND  
PIPER "SEC."



For Sale Everywhere.

JOHN OSBORN, SON & CO.,  
45 Beaver street, New York,  
and  
44 St. Sacramento street, Montreal,  
GENERAL AGENTS.

Oct 11

ESTABLISHED 1820.

## C. G. Gunther's Sons,

(LATE 502-504 BROADWAY.)

184 Fifth Avenue,  
(Broadway and 23d St.) NEW YORK.

SEAL-SKIN SACQUES AND WRAPS,  
FUR-LINED CIRCULARS AND CLOAKS,  
FUR ROBES, MATS, COLLARS & GLOVES.

ALL IN LARGE ASSORTMENTS AND AT  
LOW PRICES.

N. B.—Orders by mail or information desired will  
receive special and prompt attention. Dec 13 87

# NICHOLS & LEFEVER,

SYRACUSE, N. Y.,

MANUFACTURERS OF

## DOUBLE AND SINGLE-BARREL BREECH-LOADING SHOT-GUNS.

Double-Barrel Breech-Loading Rifles, and Shot and Rifle combined. Muzzle-Loading Creedmoor guaranteed to be the best, and not to give "UNACCOUNTABLE MISSES."

Our Catalogue for 1878 will be ready January 15, giving full description of gun, recent improvements in same, matters of general interest to Sportsmen, etc., etc.

### ACME CLUB SKATE.



The only reliable Self-Fastening Skate ever invented. Can be instantly and firmly attached to any boot. Requires no heel-plates, straps, nor key. Price per pair \$7. Nickel Plated \$6. Sent by Mail, post-paid, on receipt of price, or, by Express C. O. D. Send stamp for illustrated price-list of Skates, Revolvers, Novelties and other Sportsmen's Goods. Trade supplied by  
Mention FOREST AND STREAM. FISH & SIMPSON, 132 Nassau street, N. Y.

### THE UNITED STATES CARTRIDGE COMPANY,

LOWELL, MASS.

Manufacturers of the

CENTRAL FIRE, SOLID HEAD,  
BRASS SHELL, RE-LOADING CARTRIDGE,

Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.

Sportsmen, Attention!

Keep Your Feet Dry.

H. & A.

MAHRENHOLZ.

The only premium awarded by the Centennial Commission, Philadelphia, 1876, for Alligator Waterproof Boots and Shoes.

Goods sent to all parts of the U. S.,  
C. O. D.

Catalogues containing full instructions for self-measurement sent free on application.

503 Broadway, New York.

### NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

MADE OF BROWN VELVETEEN.

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$6.00. Also the best brown corduroy pants at \$10 per pair. Make only the one grade, as the cheapest goods do not turn briars and will not give satisfaction.

Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is "The Best Yet." Coat, \$50. For full Suit, \$140. I also make the sleeveless Coat, Vest with sleeves if desired. Rules for measurement and samples sent upon application.

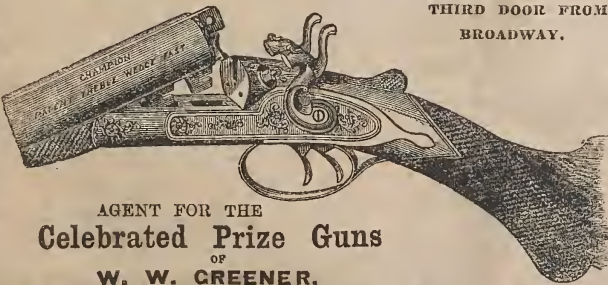
F. L. SHELDON, Rahway, N. J.

For Sale by Dealers in GUNS and SPORTSMEN'S SUPPLIES.

### HENRY C. SQUIRES,

No. 1 CORTLANDT STREET,

THIRD DOOR FROM  
BROADWAY.



AGENT FOR THE  
Celebrated Prize Guns  
OF  
W. W. GREENER.

These guns have been winners in every trial during the last three years, competing with all the first-class makers in England. The shooting of every gun is guaranteed, and prices as low as consistent with good work. Guns built to exact order of sportsmen. I keep the best selected stock of guns by all the other makers to be found in this city, including Scott, Webley, Remington, Parker and Fox, Marshall's new Glass Ball Trap, \$5; three traps, \$12. English chilled shot, all sizes and in any quantities. Agent for the Dittmar powder. Complete outfits for hunting and camping. Best Breech-Loader ever offered in the United States for \$25. Wholesale Agent for Holabird's Shooting Suits, and Camp Lounge Company.

### DOGS.

DOCTOR HENRY GARDNER, No. 146 West Thirtieth street, New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ag 25

### The Kennel.

### ST. LOUIS BENCH SHOW

AND  
SPORTSMEN'S ASSOCIATION,  
St. Louis, Mo.

The first annual Bench Show and Exhibition of the above Association will be held in St. Louis, Mo.,  
February 19th, 20th, 21st and 22d, 1878.

Cash prizes, paid in full..... \$3,000  
Special prizes, value..... \$2,000

Cash prizes for Kennels of English, Irish and Gordon Setters and Pointers, \$100 each.  
All Setters and Pointers have 1st, 2d and 3d prizes, cash, in open classes, \$30, \$20 and \$10.  
All Setters and Pointers in free-for-all classes have cash prizes of \$50 each.

Officers of the Association—President, E. Hayden, Manager American Express Co.; Vice-President, Jos. A. Wherry, wholesale Boots and Shoes; Secretary, John W. Munson; Treasurer, H. S. Brown, of Brown & Hilder, gun dealers.

Directors.—K. O. Sterling, President Hydraulic Press Brick Co.; C. Jeff, Clark of Clark & Kennet, metal dealers; W. L. Scott, Secretary of Belcher's Sugar Refinery.

For catalogues and information address JOHN W. MUNSON, Secretary, St. Louis, Mo. Nov 29 78

### EDINA KENNEL.

JESSE SHERWOOD Proprietor, Edina, Knox County, Mo., breeder and importer of Sporting Dogs, Pointers, setters, spaniels, fox and beagle hounds, "Sancho," Imp. Pointer, stud dog; fee, \$35. See English K. C. S. B., No. 1,905. He is a grandson of the celebrated "Famlet," No. 836. This dog "Sancho" has won seven prizes—four in England (first at Crystal Palace, 1874), three here.

### BALLARD'S FLEA KILLER!

FOR THE  
DESTRUCTION OF FLEAS  
On Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.

NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.

Price 50 Cents per Package.

Will be sent postage paid on receipt of price-Proprietors,

LAZELL, MARSH & GARDINER,  
179 1/2 10 GOLD STREET, NEW YORK.

### SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped.

F. O. de LUZE,

13 South William Street, N. Y., Sole Agent.

For sale in cases of 112 lbs. Special terms to dealers.

### Fleas! Fleas! Worms! Worms!

STEADMAN'S FLEA POWDER FOR DOGS.

A Bane to Fleas—A Boon to Dogs.

This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.

Price 50 cents by mail, Postpaid

ARECA NUT FOR WORMS IN DOGS

A CERTAIN REMEDY.

Put up in boxes containing a dozen powders, with full directions for use.

Price 50 cents per Box by mail.

Both the above are recommended by ROLAND GUN and FOREST AND STREAM.

W. HOLBERTON.

oct 12 102 NASSAU STREET.

FOR YOUNG COCKER SPANIEL STOCK FROM the choicest breeds. Inquire of

W. P. MCKOON,  
Franklin, Del. Co., N. Y.

### The Kennel.

FULL-BLOODED—Two Irish setter bitches, four months. Sire of pups, Don, imported from J. C. Cooper, of Limerick, Ireland, by C. H. Turner, Sec. Nat. Kennel Club, St. Louis, Mo.; dam, Countess, by Rodman's Dash. One Gordon bitch, eighteen months old; hunted this fall; staunch on quail and very fast, with good nose; will make a good one. One Gordon bitch eight months old. Full pedigree given with pups. H. B. VONDERSMITH, Lancaster, Pa. Nov 22 78

### Wanted.

WANTED a situation by a lad of fourteen in a store or office in New York or Brooklyn. Address S. S., office of FOREST AND STREAM AND ROD AND GUN, where references can be had. Dec 6 78

WANTED—Bound vols. 1 and 2 "American Sportsman;" No. 2 vol. 3 "American sportsman;" and No. 25 vol. 6, "Rod and Gun." Address WM. B. MASON, Jr., Marietta, Ohio. Dec 27 78

### For Sale.

SECOND-HAND—A very fine Tolley breech loader, with two sets of barrels fitted to same stock; one pair 10-bore Damascus and very close shooting, other pair laminated steel and cylinder bore; weight, 9 lbs. and 9 1/2 lbs. This gun was made to order for the owner, and is very superior in every respect. Can be examined at gun store of HENRY C. SQUIRES, 1 Cortlandt street, N. Y. Nov 17

FOR SALE—An entirely new "Express" shotgun, 12-gauge, made to order by J. D. Donnell, 59 St. James street, London. For details, address P. O. Box 757 Hartford, Conn. Dec 13 78

FOR SALE—One Sharps rifle, Creedmoor pattern, and one Nichols & Lefever sporting rifle; both in fine order and nearly new. Address C. H. FOOTE, Port Henry, N. Y. Dec 20 78

### Hotels and Resorts for Sportsmen.

FOR SALE—A most desirable farm in Augusta Co., Va., at Fort Defiance, which offers the fullest advantages for hunting. Quail are in large quantities, and deer and turkey are in abundance in the neighborhood. Adjoining the property are some 2,000 acres of land, the lease of which for hunting purposes could be had at very reasonable rates. For a club of gentlemen desirous of organizing a place for hunting purposes, Fort Defiance would offer the best opportunities. There is a comfortable house on the grounds, already furnished. Price reasonable. Address, B. FOREST AND STREAM OFFICE, 111 FULTON ST., NEW YORK CITY. Dec 27 78

### HALSEY HOUSE,

ATLANTICVILLE, LONG ISLAND,

is nearer New York City than any house bordering on Shinnecock Bay. Is as near, and has as good shooting grounds, and as experienced attendants (with live geese and other decoys, batteries, etc., always on hand) nearer the station; the largest and the best kept house in the bay. L. I. RR. to Atlanticville Station. Fare, \$2. Stage meets all trains. W. R. HALSEY, Owner and Proprietor. Atlanticville, L. I., Oct. 20, 1877. [Oct 25

### Metropolitan Hotel,

WASHINGTON, D. C.

### Carrollton Hotel,

BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.

### THE METROPOLITAN

is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and re-furnished throughout. The cuisine is perfect; the service regular, and charges moderate.

R. B. COLEMAN & CO.

### Wild Fowl Shooting.

SPRINGVILLE HOUSE OR SPORTSMEN'S RESORT, SHINNECOCK BAY, L. I.

By a practical gunner and an old bayman. Has always on hand the best of boats, batteries, etc., with the largest rig of trained wild-geese decoys on the coast. Special attention given by himself to his guests, and satisfaction guaranteed. Address W. M. N. LANE, Good Ground, L. I. Nov 5 78

### UNION SQUARE HOTEL,

UNION SQUARE, Corner 15th Street, New York.

A. J. DAM & SONS, Proprietors.

### C. M. BRENNAN,

OLD KENTUCKY BOURBON & MONONGAHELA

South Clark Street, Chicago.

50 Mixed Cards, with name, for 10c and stamp.

Agents' outfit, 10c. ATWATER BROS., Forestville, Conn. Dec 13 78

Gunpowder.

Warren Powder Mills,

MANUFACTURERS OF BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS—Eureka, Continental "Border Rifle," Snap-Shot, and Warren Sporting Cannon and Musket, U.S. Standard. The above can be had of the dealers, or at wholesale at the office, 27 Doane street, Boston, Mass., and of the agents, JOHN P. LOVELL & SONS (corner of Washington, Cornhill and Brattle streets, Boston, Mass. J319

THE

New Dittmar Powder.

THE CHAMPION POWDER OF THE WORLD For off-hand shooting at short and long ranges. Unsurpassed for Cleanliness. Pleasant to shoot on account of little recoil and report. Desirable for hunting on account of little or no smoke. Unequaled for rapid firing, as it does not foul and heats up the barrel as black powder. Great accuracy, penetration and good pattern. Safer than black powder. Address

CARL DITTMAR, NEPONSET, MASS.

ORIENTAL POWDER MILLS MANUFACTURERS OF ALL KINDS OF GUNPOWDER

Office—13 BROAD STREET, BOSTON.

BRANDS—DIAMOND GRAIN. FALCON DUCKING. WILD FOWL SPORTING. WESTERN SPORTING. (Oriental Rifle.)

The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES.

J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. Cobb & Wheeler, Agents, 9 State St., Chicago, Ill. C. J. Chapin, Agent, 215 Levee St., St. Louis, Mo. Agencies in the principal cities in the United States.

THE

HAZARD POWDER CO. MANUFACTURERS OF GUNPOWDER,

Hazard's "Electric Powder."

No. 1 (fine) to 6 (coarse). Unsurpassed in point of strength and cleanliness. Packed in square canisters of 1 lb. only.

Hazard's "American Sporting."

No. 1 (fine) to 6 (coarse). In 1 lb. canisters and 6 1/2 lb. kegs. A fine grain, quick and clean, for upland prairie shooting. Well adapted to shot-guns.

Hazard's "Duck Shooting."

No. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzle or breech-loaders.

Hazard's "Kentucky Rifle."

FFG, FFG, and "Sea Shooting" FG, in kegs of 25, 12 1/2 and 6 1/2 lbs, and cans of 5 lbs. FFG is also packed in 1 and 1/2 lb. canisters. Burns strong and moist. The FFG and FFG are favorite brands for ordinary sporting, and the "Sea Shooting" FG is the standard Rifle powder of the country.

Superior Mining and Blasting Powder. GOVERNMENT CANNON & MUSKET POWDER. ALSO, SPECIAL GRADES FOR EXPORT OF ANY REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER.

The above can be had of dealers, or of The Company's Agents in every prominent city, or wholesale at our office,

88 WALL STREET, NEW YORK.

GUNPOWDER

DEAD SHOT, NE PLUS ULTRA, TELEGRAPH, DUCK SHOOTING.

The above celebrated Brands are manufactured by the

AMERICAN POWDER CO., 233 State Street, Boston.

GENERAL WESTERN AGENTS

E. B. RAMBO, Chicago, Ill. F. G. GONDARD, St. Louis, Mo. M. BARR & Co., Cincinnati, O.

Oct 4

N.Y. Newspaper Mailing Agency

With the latest improved Newspaper Folding and Mailing Machine, No. 18 Spruce street. JAMES BRADY, Manager and Proprietor.

Sportsmen's Goods.

THE

"Boston Shooting Suit"

Is manufactured only by

G. W. SIMMONS & SON,

BOSTON.

Flexible, Waterproof, Tan-Color, Duck.

Each article—coat, trousers, vest and hat—have the name and manufacturer's address stamped upon it, and no suit is genuine without it bears this imprint.

The suit can be sent, securely packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit.

We make no discount except to the trade. We make but one quality, and that is the very best. The price of the suit complete is \$13.

The suit consists of coat, trousers, vest and choice of either cap with havelock, or hat.

The material is of the best quality of duck, waterproof by a patent process. The color is that known as "dead grass shade."

The seams and pocket corners are copper riveted and nothing is neglected to make the whole suit complete in every way.

This is what one of our best sportsmen says of it, writing from camp: "Miserable, drenching rain, pouring down in a perfect deluge, as if a second flood had come upon the earth, two portages to cross, and a swamp between them; that was the prospect before we reached our camping ground. Such a swamp, too; almost impassable, for where the ground was firm was an almost impenetrable thicket of thorns and what not, that looked as if it would tear you to pieces. Well, we got to our camp, and I must confess I was agreeably surprised on my arrival. Although I had been nearly eight hours under incessant rain, laboring and striving along under the adverse circumstances above mentioned, yet I found myself comparatively dry, and my clothes without a tear. For the benefit of our brother sportsmen, let me advise one of Messrs. Simmons' (of Boston, Mass.) Waterproof Suits. Oh! what a relief it was to find one's tobacco was dry, and that one could light a pipe; that you could laugh at your miserable friend, who stood shivering and shivering as if he had the palsy; and then, next morning, oh! what fun it was to see him mending his clothes, while I had not a tear to complain of. Ventilation, also, that great bugbear of waterproof suits, is legislated for in the most ingenious manner. No sportsman should fail to supply himself with a suit which is at once cheap, practical, and will last an almost indefinite time."

Our New Overcoat—The "Plevna,"

Water-proof, Mildew-proof and Mole-proof, is attracting great attention. It is made and sold only at Oak-Hill, Boston. The price is \$13.

It is a long overcoat made to wear to cover, or when diving or walking in stormy weather. It is perfect waterproof, thoroughly ventilated, and just the garment that every sporting man should have.

Our Leather Jackets and Vests

are the great wind protectors. They are made from soft, pliable black leather, flannel lined, and sell at \$5 and \$7.

Our Flexible Tan-Colored Waterproof Leather Coats and Breches

are considered the finest things ever made. They sell at \$2 and \$15.

An illustrated circular, containing full description of each garment, with sample of the material from which made, will be sent free on application.

Address

G. W. SIMMONS & SON,

OAK HALL, BOSTON, MASS.

FURS.

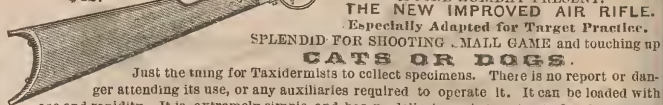
F. BOOSS & BROTHER.

ESTABLISHED 1853.

THE ONLY FUR HOUSE in this city who received at the Centennial Exhibition the HIGHEST AWARD AND DIPLOMA FOR SEAL SACQUES, FANCY FURS, ROBES, Etc. Our prices this season are 25 PER CENT. LOWER THAN LAST YEAR'S.

449 Broadway and 26 Mercer St., New York.

PRICE, BOXED, WITH DARTS, SLUGS, TARGETS, &c., \$10. FULL NICKEL PLATE \$12.



A FINE HOLIDAY PRESENT. THE NEW IMPROVED AIR RIFLE. Especially Adapted for Target Practice. SPLENDID FOR SHOOTING SMALL GAME and touching up CATS OR DOGS.

Just the thing for Taxidermists to collect specimens. There is no report or danger attending its use, or any auxiliaries required to operate it. It can be loaded with ease and rapidity. It is extremely simple, and has no delicate parts to get out of order or wear out. For sale by the Trade generally. Sent upon receipt of price or C. O. D. SEND FOR CIRCULAR. H. M. QUACKENBUSH, Patentee and Mfr, Herkimer, N. Y.

Hart's Sportsman's Favorite Metallic Shells. FOR BREECH-LOADING SHOT GUNS.

These Shells are easily loaded, and the caps easily extracted from inside. Head solid and much thicker than any Shell now made, giving a solid seat for cone or anvil, which prevents it from driving through or springing away, thereby causing mis-fires. The Cone is made of mickel, and fastened solid in its place. Neither rusts nor corrodes fast, like movable anvil made from steel. The Nickel Cone also prevents mis-fire when a cap has been left on shell for a few days, which is liable to occur either in steel or iron. These Shells are finely finished, and made any length ordered, from 1/2 to 3 1/2 inches.

Shells and Loaders and Descriptive Price-Lists can be obtained from all the leading Sportsmen's Houses. GEO. H. HART & CO., New York, N. Y. FROM CAPTAIN BOGARDUS, CHAMPION WING-SHOT OF AMERICA. MESSRS. GEORGE E. HART & Co.—Gentlemen: The fifty Shells I received from you to-day suit me better than any I have ever used. They are stronger and better in every respect, and I shall use them in all my shooting hereafter. Yours truly, A. H. BOGARDUS.

ESTABLISHED IN 1837.

Consult your interest by sending for our revised and reduced prices.

LATEST IMPROVEMENT. Double Treadle, including one doz. Saws, thirty miniature Free Sawing Patterns and prepared Wood, to the value of \$1. A new device for tightening Saws, Power Drilling attachment, Wrench, Oil Cup and Screw Driver. Speed, 800 strokes per minute. Saws, 1 1/2-inch thick. Price, complete, case and delivered on board cars at Express office, \$12. Saw only without attachments, \$5.

SMALL STEAM ENGINES. With Copper Boiler, to drive light Lathes, Scroll Saws, etc. Are all sizes from 1/2 up to 2 horse power; either plain castings, partly finished, or complete, ready for use.

The "Scientific American" of June 29, 1875, says of the above, in an extended Editorial, introducing our manufactures to the public: "It can turn wrenches, chairs, washing machines, office cream freezers, run coffee mills, pump water through a house, actuate foot lathes, scroll saws or light boxing machinery, run knitting or sewing machines, turn a grindstone or emery wheel, ventilating or hand cranking machine cutters, meat or feed choppers, or sausage machines, drive small blowers for pneumatic dispatch tubes in a building, or for a blacksmith's forge, or compress air or work an air pump on a small scale in a laboratory. These are a few only of the purposes to which it can be applied."

Also Engines and Boilers capable of propelling 15 to 18 inches. The boats have keel, stem, with rudder and tiller, row locks and oars; Those wishing a pleasure boat will find

light boats from 18 to 28 feet long, 4 1/2 to 6 1/2 feet beam, with draft of water stern and rudder post of oak, pine planking, copper fastened throughout, fitted seats all around the boat, lockers and coal benches, and have two coats of paint. These the safest and fastest, as they can be made to attain a speed of from 6 to 26 miles per hour.

They are adapted to a great variety of uses, such as Excursion, Shooting, Fishing or Pic-Nic Parties, for traveling, voyagers, boatmen and tourists, and especially owing to their light draft of

water for exploring expeditions and surveying parties. The Engine and Boiler can be easily detached from the boat, and is then available for Agricultural, Mechanical, Commercial or Domestic requirements or for the use of Amateurs, when power is needed for running light machinery.

Price of 20 foot boat, complete, \$420.00 Price of Engine and Boiler, without boat, including driving pulley, 75.00

Illustrated Catalogue containing One Hundred Scroll Work Designs mailed to any address free on receipt of Stamp.

GEORGE FARR, BUFFALO, N. Y., U. S. A.

A VICTORIOUS INVENTION The Eagle Claw.

An ingenious device for the purpose of catching all kinds of Animals, Fish and Game. The easy method of setting the Eagle Claw, combined with the simplicity of removing the victim, are among its peculiar advantages.

It is immaterial how to place it when set. It may be hurried flat in the ground, suspended from the limb of a tree, or, when occasion requires, covered with grass, leaves or other light material without in any way impairing its certain operation.

It is adapted for bait of any description, and, when set, no Animal, Fish or Bird that touches the bait can possibly escape.

It does not mangle or injure its victims in the slightest degree, nor need they be handled to free them from the trap.

PRICE LIST. No. 1—For fishing and all kinds of small game and animals, sent by mail, 35 cents. No. 2—For catching Mink, Muskrats, Raccoons, large Game, Fish, etc., 75 cents. No. 3, or Rocky Mountain Giant, for catching Bears, Wolves, Panthers, etc. Can be easily set by a boy, and will stand a strain of several hundred pounds. Weight, 10 to 15 lbs. \$10. All goods sent, charges paid, to any address on receipt of price. Address

Stent & Co., Mfr's. Agents, 132 Nassau St., NEW YORK. P. O. box 2907. AGENTS WANTED.

SHARPS' RIFLES---MODEL 1878.

ORDERS FOR THE NEW MILITARY AND LONG-RANGE RIFLE ARE NOW BEING FILLED.

SEND FOR ILLUSTRATED PRICE LIST.

Sharps' Rifle Co., Bridgeport, Conn. NEW YORK WAREHOUSES, 177 BROADWAY.

**Publications.**

**LONG-RANGE**

**RIFLE SHOOTING.**

A Complete History of the International Long-Range Matches, 1873-1877—Complete Echo Shield Scores—Rules and Regulations of the N. R. A. Etc., Etc.

**FULLY ILLUSTRATED**

BY THE

**RIFLE EDITOR OF THE "FOREST AND STREAM AND ROD AND GUN."**

Price 25 cents.

New York.

Published by the Forest and Stream Pub. Co. 1877.

**Bound Volumes**

OF

**Forest and Stream.**

EIGHTH VOLUME, NOW READY.

First Four Volumes, \$4 each, Others, \$3.50.

A complete set of the FOREST AND STREAM—seven volumes, bound handsomely in cloth—a valuable library for the sportsman—can now be obtained on application to this office.

**BINDERS.**

Get your fine books bound. Art Journal bound uniform to London publishers style. Picturesque America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done in two or three days if required.

E. WALKER'S SONS, 14 Dey street.

**Camp Life in Florida.**

By CHARLES HALLOCK,

AUTHOR OF THE FISHING TOURIST.

Published by Forest and Stream Publishing Co.,

No. 111 FULTON STREET, NEW YORK.

And for sale by all booksellers. Sent by mail, postage prepaid, on receipt of price (\$1.50) at office of publication.

**FRANK SCHLEY'S AMERICAN**



**Partridge & Pheasant Shooting.**

Describing the Haunts, Habits, and Methods of Hunting and Shooting the American Partridge—Quail, Ruffed Grouse—Pheasants, with directions for handling the gun, handling the dog, and shooting on the wing. Price, \$2. Liberal discount to the trade.

To be had at book stores generally. Address, **Frank Schley, Frederick City, Md.**

**KNOW YOURSELF** A new Medical treatise, "The Science of Life, or Self-Preservation, a book for everybody." Price \$1, sent by mail. Fifty original prescriptions, either one of which is worth ten times the price of the book. Gold medal awarded the author. The Boston Herald says: "The Science of Life, beyond all comparison, the most extraordinary work on Physiology ever published." An Illustrated Pamphlet sent FREE. Address DR. W. H. PARKER, No. 4 Bulfinch Street, Boston, Mass.

**HEAL YOURSELF**

**The Southern Guide.**

A finely illustrated quarterly periodical, exhibiting the characteristics and resources of the Southern States. One dollar per year; single copies, 25 cents. Published by

**BRAMHALL & CO.,** Washington, D. C. Dec 23rd

**POULTRY WORLD**—A splendidly illustrated monthly, \$1.25 a year. Send 10 cts for a specimen copy. Address **POULTRY WORLD,** Hartford, Conn. Dec 17th

**Publications.**

**Sportsman's Gazetteer**

AND

**GENERAL GUIDE,**

By **CHARLES HALLOCK,**

Editor "Forest and Stream and Rod and Gun."

\$96 pp., Price \$3.

Tinted Paper, \$4; half-bound mo., \$5.

A complete Dictionary for Sportsmen. Everybody wants it that has a dog, gun or fishing rod. A complete description of all kinds of Game, Fish, etc. Field Sports, Woodcraft, Angling, Fly Tying, Dogs, Dog Breeding, Diseases and Treatment, Boating and Boat-building.

Several thousand localities where game and fish are to be found.

Nothing of the kind ever before published worth ten times the price.

PUBLISHED BY

**FOREST & STREAM PUBLISHING CO.** 111 Fulton street, New York.

**Sportsmen's Routes.**

**STONINGTON LINE,**

FOR BOSTON AND ALL POINTS EAST.

REDUCE FARE: Elegant Steamers STONINGTON and NARRAGANSETT leave Pier 33 North River, foot Jay St. at 5:00 P. M. NOT A TRIP MISSED IN SEVEN YEARS.

Tickets for sale at all principal ticket offices. State rooms secured at offices of Westcott Express Company, and at 363 Broadway, New York, and 323 Washington St., Brooklyn.

PROVIDENCE LINE.

Freight only, steamers leave Pier 87, North River, foot Park Place, at 4:30 P. M. Freights via either line taken at lowest rates.

L. W. FIKLINS, G. P. Agent, D. S. BABCOCK, Pres.

**St. Paul and St. Louis Short Line.**

Burlington, C. Rapids & North'n Railway.

QUICKEST, CHEAPEST AND BEST!

TWO PASSENGER TRAINS EACH WAY DAILY, crossing and connecting with all East and West Lines in Iowa, running through some of the finest hunting grounds in the Northwest for Geese, Ducks, Pheasants and Ruffed Grouse and Quail. Sportsmen and their dogs taken good care of. Reduced rates on parties of ten or more upon application to General Ticket Office, Cedar Rapids. C. J. IVES, E. F. WINSLOW, Gen. Passenger Agent. General Manager.

**FOR FLORIDA**

FOR THROUGH TICKETS TO FERNANDINA JACKSONVILLE, ST. AUGUSTINE, SAN FORD, ENTERPRISE, and intermediate landings on ST. JOHN'S RIVER and interior points in FLORIDA, by steamship to SAVANNAH, and thence by railroad or steamboat, apply to W. M. L. JAMES, General Agent.

Philadelphia and Southern Mail S. S. Co., Pier 22 South Delaware Avenue, Phila.

Dec 14-ly

**"The Bermudas."**

NOW A FAVORITE AND DELIGHTFUL WINTER RESORT, is reached in seventy hours from New York, and being surrounded by the warm waters of the Gulf Stream enjoys an equable temperature of about 70 deg.

The elegant British Steamships "Bermuda," and "Camilla," 1,000 tons, fitted expressly for the passenger travel, are dispatched from New York for Bermuda fortnightly, making connection at Bermuda with steamers for St. Thomas and West Indies. For full information apply to A. E. OUTERBRIDGE, Agent, 29 Broadway, N. Y. Dec 21 ly.

**HOW TO LIVE IN FLORIDA,** HOW TO GO, COST OF TRIP, COST TO SETTLE, what to cultivate, how to cultivate it, etc., etc. all told in each number. Florida Review, published at 21 Park Row, New York City. Single copies, 10c. One year \$1. 40 Acres Or- chard sent gratis. On line of railroad, country healthy, quickly settled. Address J. B. OLIVER, Gen'l Agent, Box 623, New York.

**Sportsmen's Routes.**

**REDUCTION OF FARE.**

**\$3 NEW YORK TO BOSTON VIA THE FALL RIVER LINE**

To Boston and Return, \$5.

Magnificent Steamers NEWPORT and OLD COLONY leave New York daily (Sundays excepted) at 4:30 P. M. This is the only Sound Line giving passengers a FULL NIGHT'S REST. Passengers take any one of the FIVE MORNING TRAINS from Fall River to Boston.

BOLDEN & LOVELL, Agents. GEO. L. CONNOR, General Pass Agent.

**NEW YORK AND PHILADELPHIA NEW LINE**

ROUND BROOK ROUTE. FOR TRENTON AND PHILADELPHIA.

COMMENCING NOVEMBER 25, 1877. STATION IN NEW YORK—Foot of Liberty St. N. Y. Leave New York for Trenton and Philadelphia at 6:30, 8:30, 11:30 A. M., 1:30, 3:30, 5:30, 12 P. M., and at 4 P. M. for Trenton.

Leave Philadelphia from station North Pennsylvania Railroad, Third and Berks streets, at 7:50, 9:50, 11:50 A. M., 1:50, 3:50, 5:50, 12 P. M.

Leave Trenton for New York at 1:20, 6:35, 8:05, 10:20 A. M., 12:15, 2:15, 4:10, 6:15 P. M.

Pullman Drawing Room Cars are attached to the 9:50 A. M., 3:50, P. M. trains from New York and to the 7:50, A. M., 1:30 P. M. trains from Philadelphia.

SUNDAY TRAINS—Leave New York and Philadelphia at 9:30 A. M., 5:30, 12 P. M. Leave Trenton at 10:20 A. M., 6:10 P. M.

Tickets for sale at foot of Liberty street, Nos. 523 and 94 Broadway, at the principal hotels, all offices of the Erie Railway in New York and Brooklyn, and at No. 4 Court street, Brooklyn. Baggage checked from residence to destination.

Sept 15 H. P. BALDWIN, Gen. Pass. Agent

**GREAT SOUTHERN Freight & Pass'ger Line,**

VIA

**Charleston S. C.**

The South and the Southwest

AND THE

**FLORIDA PORTS,**

Wednesday and Saturday

At 3 o'clock P. M. From Pier 27, N. R.

**CITY OF ATLANTA, CHARLESTON,**

Capt. M. S. Woodhull. Capt. R. W. Lockwood.

SANTIAGO DE CUBA, G. W. CLYDE.

Capt. S. Crowell. Capt. Ingraham.

The above steamers have been handsomely fitted up for the convenience of passengers, and are unrivalled on the coast for

Safety, Speed and Comfort.

Close Connections at Charleston with the favorite and well-known Florida packets, DICTATOR, Capt. Vogel; CITY POINT, Capt. Scott; FOR FERNANDINA, JACKSONVILLE, ST. AUGUSTINE, PALATKA, ENTERPRISE, MELONVILLE and all points in Florida.

EXCURSION TICKETS AT REDUCED RATES.

Insurance to destination ONE-HALF OF ONE PER CENT.

Goods forwarded free of Commission. Passage tickets and Bills of Lading issued and signed at the office of JAMES W. OLDEN & CO., Agents, Pier 27, N. R., foot Park Place. Office on the wharf.

W. P. CLYDE & CO., No. 6 Bowling Green.

Through Freight Tariffs, Passage Tickets by all routes and to all points in the South and Southwest, and further information can be obtained at the office of BENTLEY D. HASELL, General Agent, of Great Southern Freight Line, 317 Broadway, corner of Thomas street. Oct 11 3m

**TO SPORTSMEN:**

**THE PENNSYLVANIA R. R. CO.**

Respectfully invite attention to the

**Superior Facilities**

afforded by their lines for reaching most of the TRADING PARKS and RACE COURSES in the Middle States. These lines being CONTINUOUS FROM ALL IMPORTANT POINTS, avoid the difficulties and dangers of re-shipment, while the excellent cars which run over the smooth steel tracks enable STOCK TO BE TRANSPORTED without failure or injury.

The lines of

Pennsylvania Railroad Company

also reach the best localities for

**GUNNING AND FISHING**

in Pennsylvania and New Jersey. EXCURSION TICKETS are sold at the offices of the Company in all the principle cities to KANE, RENOVA, BEDFORD, CRESSON, RALSTON, MINNEQUA, and other well-known centers for

Trout Fishing, Wing Shooting, and Still Hunting.

Also, to

TUCKERTON, BEACH HAVEN, CAPE MAY, SQUAN, and points on the NEW JERSEY COAST renowned for SALT WATER SPORT AFTER FIN AND FEATHER.

J. P. FARMER, Gen'l Pass. Agent. FRANK THOMSON, Gen'l Manager. Feb 17-73

**Old Dominion Line.**

The steamers of this Line reach some of the finest waterfowl and upland shooting sections in the country. Connections direct for Chincoteague, Cobia's Island, and points on the Pamlico. City Point, James' River, Currituck, Florida, and the mountainous country of Virginia, Tennessee, etc. Norfolk steamers sail Tuesday, Thursday and Saturday, Delaware, Monday and Friday at 2 P. M. Full information given at office, 137 Greenwich St., New York, Sep 25 ly

**Sportsmen's Routes.**

**SAVANNAH, GA., ST. AUGUSTINE, FLA., NASSAU, N. P., HAVANA, CUBA.**

From Savannah, Ga., to Nassau, N. P., and Havana, Cuba, via St. Augustine, Fla., steamer San Jacinto will sail Jan 1, 15 and 23, and every alternate Tuesday. Connecting steamers leave New York on Dec. 19, Jan. 12 and 23.

**FOR NASSAU DIRECT,**

Steamship Carondelet, January 2 and February 2, and monthly thereafter from Pier 16, East River, New York.

For all particulars, illustrated guide, &c., apply to

**MURRAY, FERREIS & CO.,**

No. 62 South St.

**ONLY DIRECT**

**FLORIDA LINE.**

For Fernandina, Fla., Port Royal, S. C., and Brunswick, Ga.

Sailing every FRIDAY from Pier 20, E. R., at 8 P. M.

Close connection made with the M. and B. and B. A. Railroads at Brunswick, and the P. R. R. R. at Port Royal; also with the steamer Carrie (which has been refurbished), at Fernandina for Jacksonville and the St. John River.

For through rates of freight and passage, apply to

G. H. MALLORY & CO., Agents, 153 Maiden Lane, Nov 20 4m NEW YORK.

**NEW HAVEN, HARTFORD, SPRINGFIELD, AND THE NORTH.**

The first-class steamer ELM CITY leaves Pier 25, East River, daily (Sundays excepted) at 8 P. M. Passengers to New Haven and East at 12 P. M.

NIGHT LINE—THE CONTINENTAL leaves New York at 11 P. M., arriving in New Haven in time for the early morning train.

Merchandise forwarded by daily express freight train from New Haven through to Massachusetts, Vermont, Western New Hampshire, Northern New York and Canada. Freight received until 5 P. M.

RICHARD PECK, General Agent.

**HUNTING**

FOR DEER, BEAR, PARTRIDGES, DUCKS, Take the Grand Rapids and Indiana Railroad.

**FISHING**

FOR WHEE, PICKEREL, BASS, Etc., Follow the G. R. and I.—The "Fishing" Line

Time, New York to Grand Rapids, 37 hours.

**EXPENSES LOW.**

Shooting season expires December 15. For information as to routes, ratio and best points for the various kinds of game, etc. Apply to

A. B. LEET, Gen. Pass Agent,

Grand Rapids, Mich.

Eastern Agent, 116 Market St., Phila., Pa. Nov 22 1f

**Sportsmen's Goods.**



**Jewelers and Silversmiths,**

HARTFORD, CONNECTICUT, DEALERS IN

Diamonds, Silverware, Watches, Jewelry, etc. IMPORTERS OF

FRENCH, GERMAN, AND ENGLISH FANCY GOODS.

SPECIAL ATTENTION GIVEN TO THE MANUFACTURE OF APPROPRIATE DESIGNS FOR

Shooting, Boating, Racing, and other Prizes.

OUR

**ILLUSTRATED CATALOGUE,**

CONTAINING

Three Dozen Wood Cuts of the above and other articles

in our line, and including the

**GAME LAWS OF CONNECTICUT,**

Mailed to any Address, on receipt of 50 CENTS.

R. THOMAS, JR., GUNS, PISTOLS, SPORTING GOODS, 174 South Clark Street, Chicago, Ill

CITY AND COUNTRY PROPERTY bought, sold and exchanged. C. S. PECK, 8 West 42nd Street, New York, Sept 17 ly

Guns, Rifles, Etc.

THE CHOKE-BORE MATCH.



W. W. GREENER begs to inform his numerous patrons in America that his gun has again come off victorious at the great match of Choke-Bore vs. Cylinder Bore, at the London Gun Club, on May 23, beating seventeen of the best shots in Great Britain who used guns by the best London makers, viz.: Four made by Grant, three by Purdy, three by Dougal, one by Lancaster, Boss and others.

[See London Field, May 26, Editorial Remarks.] "Mr. Cholmondeley Pennell, the winner of Mr. Purdy's massive fifty guinea cup, weighing over 91 ozs., for the highest score, shot wonderfully well, killing all his birds at 30 yards with the first barrel. The gun he used was a full choke, by Greener, of Birmingham. The result of the trial served to show the superiority of the choke at the long range. Mr. C. Pennell cutting down his birds in a marvelous way with his heavy Greener."

W. W. GREENER,

St. Mary's Works, Birmingham, and 63 Haymarket, London.

Read "Choke-Bore Guns and How to Load," by Cassell, Petter & Galpin, New York.

Second-Hand Guns

AND

SPORTING GOODS,

WHICH CAN BE BOUGHT CHEAP AT

J. F. MARSTERS,

125 NASSAU ST., N. Y.

- One Scott Premier 10-gauge choke-bore, weight 9 lbs., in first-class order, with case, price... \$225
One Remington Sporting Rifle, made to order, pistol grip, rubber heel to prevent recoil, .44-calibre... 50
One Hollis' 10-bore, 9 lb. pistol-grip, rebounding locks... 70
One Remington Military Rifle, 1,000-yard range... 15
One French Double Gun, pin-fire, 16-gauge... 25
One More & Ha r's Muzzle-Loader, 10-gauge, 8 1/2 lbs., double gun... 25
One Hollis' Ducking double gun, 8 gauge, 14 lb... 25
One Scott Muzzle-Loader, 12 lb., 9-gauge, 34-in... 25
One Ballard Rifle, .44-cal., 10 lb... 20
One Colt's Revolving Rifle, 6 shot... 15
One Maynard Rifle, little the worse for wear... 8
One Single Muzzle-Loader, 10-gauge, cost \$45... 15
One Single Breech-Loader, Stephen's make... 12
One Skeleton Stock Stephen's Rifle, .22-calibre, in case... 12
One General Fishing Rod, will make up five different rods, German silver-mounted, cost \$40... 20
One large German silver trolling reel, holds 600 feet line... 10

THE

PARKER GUN.

THE OLD FAVORITE.

No gun in the world has a better record for close, hard shooting, and none will stand more hard service.

AN AMERICAN GUN FOR AMERICAN SPORTSMEN.

Send stamp for circular to PARKER BROS., MERIDEN, CONN., 97 Chambers street, New York.

Dec27 tf

The New AIR PISTOL shoots darts and slugs. Black enamelled six darts, 50 slugs, \$1.75. Full Nickel Plate, \$2.50. Sent prepaid on receipt of price. GEO. M. JACOBS & CO., 121 Duane Street, N. Y.

Fishing Tackle.

H. L. LEONARD.

Manufacturer of every variety of

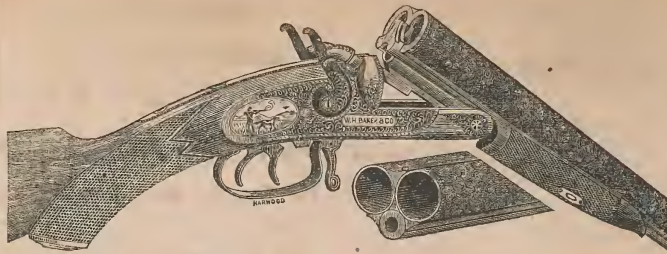
FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty

Every Rod bearing my name is six strands from unit to extreme tip, and mounted with my "patent waterproof ferrule," and warranted against imperfections in material and workmanship. Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancelwood, MADE TO ORDER. I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods.

MANUFACTORY, BANGOR, MAINE.

A variety of my rods may be found at No. 19 BEAVER ST., New York City (Up Stairs).



Three-Barrelled Breech-Loading Guns, TWO SHOT AND ONE RIFLE.

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.

PRICES—Three barrel, \$75 to \$250. Double barrel shot guns. Damascus barrel, \$50 to \$200. Twist barrel, \$35. SEND FOR NEW CIRCULAR.

W. H. BAKER & CO., Syracuse, New York.

DON'T PASS THIS BY.

STODDARD'S CARTRIDGE-LOADING IMPLEMENT, COMBINING ALL OTHER TOOLS AND FOR ALL SHELLS.

Length, 4 1/2 inches; weight, 10 ounces, and nickel-plated. Price, \$6.

Recommended by FOREST AND STREAM AND ROD AND GUN, Boone, Recapper, Will Wildwood, Ira A. Payne, and others. Liberal discount to the trade. Send postal order to

C. J. STODDARD & CO.,

Lock box 192, Washington, D. C.

IRA A. PAINE'S CHAMPION FILLED GLASS BALL.

PATENTED OCTOBER 23.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works have made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the services of that well-known Sportsman, IRA A. PAINE, to take entire charge of the production of his new patent Feather Filled Ball, which he holds the exclusive right to make and sell.

We can give the sportsmen of America no better proof of the superiority of these balls than that W. & C. Scott & Sons, after examining every ball in the market, have ordered 2,000 to be sent to England. In no instance where it has been exhibited has it failed to take the place of all others.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300. Send for price list. Special inducements to the trade.

HEADQUARTERS BOHEMIAN GLASS WORKS, 214 Pearl Street, N. Y.

PAINE'S PATENT Feather-Filled Glass Balls and Huber Traps.

MESSRS. WILLIAMS & POWELL HAVE ORDERED 30,000 OF THE FORMER, AND FORTY OF THE LATTER. THEY WILL BE SHIPPED FOR ENGLAND ON SATURDAY NEXT. THIS, WITH THE LATE ORDER FROM W. & C. SCOTT & SONS, EFFECTUALLY ESTABLISHES THE SUPERIORITY OF THE

PAINE FILLED BALLS AND THE HUBER TRAPS.

Dec13 1m



Bogardus' Patent Rough Glass Balls and Glass Ball Traps.

These Traps are the only ones that give satisfaction, as they are simple of construction, easily set, and not liable to get out of order, and they throw the ball in a manner that more closely resembles the flight of a bird than any other trap in the market. The Patent Rough Glass Balls are made of uniform weight and thickness, and have a corrugated surface that strengthens the ball for shipment to any part of the country, prevents the glancing of shot, and thereby insures the breaking of the ball when hit.

CAPTAIN BOGARDUS was the first to introduce the ROUGH BALL, and at a price far below the smooth ball at that time.

Balls and Trap can be ordered through all Gun Dealers. Liberal discount to the Trade. THE IMPROVED TRAP (warranted), which will throw a ball in any direction from the shooter at the option of the puller, is now ready for the market. Price \$8.

W. & C. SCOTT & SONS have ordered 10,000 balls and 24 traps to be sent to England

HEADQUARTERS FOR BALLS, HAGGERTY BROS., 10 Platt Street.

Dec6 tf

FOR TRAPS, GEO. E. HART & CO., Newark, N. J.

Match Against Time--Skill and Endurance.

GILMORE'S GARDEN, NEW YORK CITY, JANUARY 3, 1873.

CAPTAIN A. H. BOGARDUS, Champion Wing Shot of the World, has made a match to break 6,000 Glass Balls in 60 consecutive minutes, loading his own gun. Balls to be sprung from his patent traps. Shooting to commence at 3 o'clock P. M. Dec6 4t

Sportsmen's Headquarters

FOR WINES, LIQUORS and CIGARS.

Outfits for yachting. The camp or field a specialty. Olives by the case, gallon or bottle.

THOS. LYNCH, IMPORTER,

99 NASSAU ST., Bennett Building, New York. Sept27

PIANOS

Retail price \$900 only \$750. Parlor Organs, price \$340 only \$295. Paper free. Dan'l F. Beatty, Washington, N. J. Dec26

Dunklee's Patent Camping and Mining Stove.

Four sizes, weighing from 15 to 70 lbs. Just the thing for any one camping out. Address TAUNTON IRON WORKS CO., 87 Blackston street, Boston, Mass. Dec27 6m

Lessons in Fly Tying.

I will guarantee to teach any gentleman the art of dressing flies in a few lessons. Address JOHN HAILY, 320 Henry Street, New York City.

Flies tied to order from any pattern. Nov8

Sportsmen's Goods.

FLORIDA OUTFITS.

Send 10 cents for illustrated catalogue of SHOOTING, FISHING and CAMPING GOODS, with hints and directions for camping, shooting and fishing. Bogardus' rules for glass ball shooting, etc., etc.

TENTS, CAMP STOVES, PORTABLE BOATS, RUBBER GOODS, JACK LAMPS, ETC.

Suits of all kinds, including velvet, corduroy, leather, etc. Also a new style of duck, very soft and pliable.

Fox, Webley, Scott and other breech-loading guns and rifles. Ammunition of all kinds.

SPLIT BAMBOO RODS.

I am able to offer to sportsmen a very superior article in split bamboo rods for fly and bass fishing and trolling. Call and examine them. Every rod warranted. With skeleton reel-bands, \$18; solid reel-bands, \$25, with tip case, extra tip and bag.

These rods have been well tested, and are equal, if not superior, to any in the market.

FLORIDA OUTFITS A SPECIALTY.

A supplement to my illustrated catalogue will be ready this week, containing a number of new articles for sportsmen, including price list of

SKATES.

No sportsman should be without "THE SPORTSMAN'S DIARY AND NOTE-BOOK;" Blank Scores for all kinds of shooting. Rules, etc., bound in leather;—a handy size for the pocket. Sent on receipt of 50 cents.

Send no money by mail; remit by draft or P. O. order.

W. HOLBERTON'S SPORTSMEN'S EMPORIUM,

P. O. Box 5,109, 102 Nassau St., N. Y.

NOW READY,

THE

Sportsman's Gazetteer AND GENERAL GUIDE.

WITH MAPS AND ILLUSTRATIONS,

900 pp., Price, \$3.

BY CHARLES HALLOCK,

EDITOR OF "FOREST AND STREAM;" AUTHOR OF THE "FISHING TOURIST," "CAMP LIFE IN FLORIDA," ETC.

NEW YORK:

"FOREST AND STREAM" PUBLISHING COMPANY.

The book is a complete manual for sportsmen: it gives every sportsmanlike method for capturing every known game animal, bird and fish in North America.

It designates the proper charges for guns for each kind of game, the various kinds of decoys and blinds, and baits and tackle for the fish.

It gives over 4,000 localities where game and fish may be found, specifies the game found in each locality, the hotel accommodation, and the best route to get there. (The preparation of this Directory was in itself a work of great magnitude.)

It gives the scientific name and specific characteristics of each species it describes, with the habitat and breeding season of each—a most valuable contribution to science.

It describes 297 varieties of edible fish alone, that may be taken with the hook; 80 varieties of ducks; 60 varieties of snipe or waders, and the different methods of shooting each.

Its instructions for capturing large game are very minute, and the chapters on woodcraft, outfitting and camping have been pronounced by "El Casador," of Los Angeles, California, to be simply complete.

Every kind of dog used for sport is designated, and his points for bench judgments fully given. The chapters relating to selection, breeding, rearing, breaking, care and diseases, comprise a seventh part of the volume. There are 71 prescriptions and recipes given under the revision of the best modern canine therapeutists.

It is itself the most concise, accurate, instructive, readable and comprehensive work ever written upon the dog and his diseases. Any physician can administer the prescriptions with perfect confidence in their safety and efficacy.

It contains very useful recipes and remedies for wounds, bites, poisons, illness, and emergencies of all kinds; for cleaning, repairing, and preserving every implement used for sport; for selection and use of every kind of boat employed by sportsmen; a reference list of several hundred books in request by sportsmen, and a directory where to buy outfitting goods.

It instructs in taxidermy, and tells how to preserve and mount specimens of animals, birds and fish.

W. M. HABERSHAW, F. C. S., 39 New Street, City, ANALYST FOR THE CHEMICAL TRADE, OF NEW YORK.

CHEMIST OF THE N. Y. STATE AGRICULTURAL SOCIETY ANALYTICAL CHEMIST TO THE NEW YORK, PRODUCE EXCHANGE. Dec27 4t

# FOREST AND STREAM & ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

NEW YORK, THURSDAY, JANUARY 3, 1878.

Volume 9.—No. 22.  
No. 111 Fulton St., N. Y.

For Forest and Stream and Rod and Gun.

## Blackbeard, the Pirate.

(Concluded.)

It was a bright, sunny day, this 17th of November, 1718, when, everything being in readiness, the gallant Maynard and his no less gallant crew started on their perilous undertaking. Unfurling their sails and hoisting the king's colors, the two sloops left anchorage at Kecquetin, on the James River, and sailed down toward the bay. Maynard, having learned that Blackbeard was certainly lurking in the vicinity of Okerecoch, and that his crew had been roaming it will through the country, engaging in every kind of debauch, directed his course at once to the North Carolina coast. From the same source he was apprised that the pirate, at the outside, could not have more than half his men with him, and in this condition he hoped to surprise the party and kill or capture them before they could make any formidable resistance. With this design the English officer slowly and steadily made his way, obtaining all information of the pirate that he schooners and sloops meeting him could impart, and ordering all vessels going in the direction of his foe to drop in his wake. But notwithstanding all these precautions, Blackbeard had certain tidings of his approach from the secretary of Gov. Eaden, who privately conveyed the intelligence Maynard sought to hide. However, instead of profiting by the knowledge, strong in his fancied security, and rash in his self-reliance, the pirate captain made no effort to collect his crew or prepare for the coming combat.

On the evening of the 21st of November, Maynard dropped anchor in Okerecoch Inlet, in sight of the two vessels of his foe. And now Blackbeard beat to quarters and put his vessels in a state of defence. The evening was drawing to a close, the water was shallow where they both lay anchored, and the channel was intricate, so that all thoughts of an encounter till next morning were put aside as impossible. A quiet night came on; the wind sank to a gentle breeze that scarcely rippled the waters; the stars one by one shone out in the calm depth of heaven and were reflected back in the languid, tranquil waves. The sloops swung idly in the current, and no sound of life disturbed the gentle peace that brooded over all.

The night passed slowly by, its moments leaden weighted to Maynard and his crew, who were oppressed with anxious care and forebodings for the morrow. Would another night find them alive? Were these their last hours in this world? Would they never see dear, absent faces again on earth? never hear the home voices they loved? Was this dream of life, with all its hopes, its joys, aye, its sorrows, over forever? Was the mystery of Eternity to be so soon solved to their souls? and to whose soul? Who would be taken and who left? Was there no answer on earth or sky or their own hearts? Nothing but the monotonous dip of the vessel to the incoming tides—nothing but that restless, maddening waiting. Yes, and how many there were indeed whose eyes were forever closed to the sinking of that sun for whose advent they waited! Brave, valiant souls that passed from life to death in all the abnegation of self-sacrifice! May Heaven have made amends for all, we pray!

Maynard and his crew sat on deck all the night and discussed at times in low tones the approaching event. The lieutenant paced the deck in alert watch; but such care was needless if he had but known it. Blackbeard and his men were passing those hours in wild carousal. He had given them as much to drink as they would have, and had then left them to themselves, while he and a trader, as inveterate and hard a drinker as himself, spent the night in a schooner lying near.

Blackbeard felt confident of victory. His long continued successes had induced him to believe his strength invincible. Besides, every detail of Maynard's force had been divined to him; he knew there were no mounted guns on the attacking side. And though he was aware his own vessels were but half manned, as they lay anchored together in the stream, he never doubted but that his heavy guns would more than counterbalance this weakness.

At last the stars died out; a cool, fresh breeze sprang up; the waves began to glow with a faint hue caught from the coming morn. The glory slowly gathered in the East and

heralded the approach of full orb'd day. And now light streamed athwart the sky, and a pathway of gold lay wide upon the waters. On both sides the men were at their posts. Maynard called his men together and said to them: "My lads, it is no child's play we have undertaken. Instead of surprising Blackbeard, as I had hoped, he has by some unknown means discovered our intentions, and is thoroughly prepared. We will have a square fight, hand to hand; a struggle for life or death, where no quarter will be given or asked. You are all volunteers—picked men, and I have every confidence that you will do your duty. Remember, we must conquer or die." A loud murmur of assent was the reply, and every hand grasped his weapon more tightly, and every face grew sterner with the full import of the hour.

"Is your powder dry, and are your cutlasses well sharpened?" asked the captain.

"Yes!"

"Then, forward! and follow me!"

At the signal the anchors were weighed, and sending a boat ahead to sound the Inlet the sloop slowly advanced. And now while the intrepid officer is going forward to the attack, and the pirate with his desperate crew awaits the onset, I will seize this occasion to say that this is history, and no romance, that I am writing. Cooper and Reid may portray vividly the battles at sea, even as their own imaginations may suggest, and paint them with all the fervent colors that make them living realities. But this is a reality, founded on sober fact. Not only has tradition handed the event down, but old letters, old chronicles, old books all record the same plain unvarnished tale. Any one desirous of testing the assertion may do so by overlooking the old history of Virginia, and especially that quaint and ancient volume of "Johnson's History of Pirates." Though the combat reminds one of Homer's in the Iliad, it is none the less true that it was so daring, and none the less reliable and worthy though its record is not well known or often read.

But to proceed. The channel proved difficult to thread, and at every few rods a sounding had to be made. The advance was therefore necessarily slow. On the pirate's side the preparations were soon completed. The Guernseyman, commanded by Blackbeard, had only about one-sixth of her original crew; and on his own vessel there were but twenty-five men, though to embolden them he gave out that there were forty on board. His guns were loaded, and some of his crew were on deck armed to the teeth. Blackbeard placed one man at the powder magazine with a loaded pistol, sternly ordering him to blow up the vessel should Maynard capture it.

Maynard steadily approached the Pirate's ship, the Queen Annie's Revenge, which was anchored near the shore, his own sloop, the Ranger, leading. As soon as he was within gun shot, Blackbeard opened on him with round shot. The waters all around bubbled and hissed as the solid ball struck them, but fortunately none touched the sloops that kept their onward way. The sun was now rising high in the heavens, gleaming on the King's colors, the Union Jack, that Maynard halcyoned unfurled. In response the black flag was run up the masts and flapped ominously on the breeze.

The light wind filled Maynard's sails, and his sloop surged ahead and neared the pirate. Seeing that his foe was trying to board him, Blackbeard cut his cable and endeavored to make a running fight, and sink his enemy with his guns. Maynard instantly divined this manoeuvre, and knew that if it could not be prevented his ship would be knocked to pieces. So he hurried on all sail, and made use of oars to accelerate his speed that he might the sooner close with the outlaw. In a short while he was near enough to use his small arms. But this did him little good, for the pirate's ship at once turned and gave him a broadside that smashed the top of his bow and wounded several men with splinters. It was becoming exceedingly critical with Maynard, when fortunately Blackbeard ran aground. Maynard, still keeping close to the enemy's ship with the intention of boarding, also stuck fast within a pistol-shot of the pirate. In the meantime the other sloop was following up Blackbeard's second vessel, and soon both were out of sight.

Finding himself thus aground, Maynard ordered all his ballast to be thrown overboard, even his water casks, and thus lightened, floated still nearer to his antagonist. Blackbeard stood in the midst of his men with only his face visible, and

such a face!—his beard, tied with red ribbons; his eyes, mad with fury and drink, gleaming like a savage beast's. He hailed Maynard, and, with bitter curses, asked, "Who are you?" Maynard shouted back, "You can see by my colors I am no pirate."

Neither side fired a shot, and, like the Trojan heroes, these rival captains kept up their menacing colloquy.

"Send a boat on board that I may know who you are," said Blackbeard.

Maynard answered, "I cannot spare a boat, but I will come aboard of you with my sloop."

Upon this Blackbeard took a glass of liquor and drank to him in these words, "I swear by my beard I give no quarter, nor will I give nor take any from you."

Maynard's reply came across the water as clear as a bugle, "I expect no quarter from you, nor will I give you any."

Even as he spoke, Blackbeard's ship slewed round and fired a whole broadside right into Maynard. The guns, double-shotted with grape and canister, did terrible execution. Maynard's ship's sides were cut up, and twenty of his men killed or wounded.

The battle seemed now already decided in favor of the pirate. Maynard ordered his men to lie close down, and he himself took the helm. Closer and closer he crept, till only a few yards separated the two vessels. In a low, quick, decided tone, he told his men not to move till he gave the signal. Some crouched on deck and others in the hold, with a pistol in the right hand and cutlass in their left. Thus, trembling from intense excitement, yet with nerves like steel, they waited their leader's command.

The two vessels collided, and Blackbeard made his men hurl into the king's vessel hand grenades, made of case bottles, filled with shot, slugs and scraps of iron, and in the mouth of each a match. Off went these infernal machines, snapping, crashing and roaring amid the noise and yells of the pirate horde. They did some damage, and created some confusion; but their leader's calm voice was heard, and the old salts, thoroughly disciplined, cowered closely in their hiding-places without betrayal of their presence. The explosion was soon over.

Blackbeard, seeing none of the crew visible but Maynard, shouted to his men, "They are all killed; follow me," and sprang on the Ranger's deck, he and his bloodthirsty crew yelling like demons. His appearance was enough to daunt the boldest heart, but he was opposed by a man equally fearless. When the outlaw boarded the ship, with his fourteen demons, Maynard gave his signal, and, like a thunderbolt, his men rose up and fell upon the foe. Swords clashed, pistols cracked, and the keen cutlasses were red with spouting blood. Hand to hand, and face to face, with every bad passion in their nature aroused, these men fought and tore each other like so many ferocious beasts. Now backward, now forward, they surged in their mad struggle. The metallic ring of the pistol, the dull noise of the deadly cut, and the gurgling cry of the dying, the groans of the wounded, the curses and oaths, the sullen splash overboard of the dead, mingled in one mad confusion, and made a scene worthy of "Dante's Inferno."

Maynard met Blackbeard face to face. They fired at the same time. Maynard stood unhurt. The mighty form of the pirate reeled and swayed backward, but only for a moment. The bullet had passed through his side, but struck no vital part. Hurling his pistol at his foe, the wounded man shifted his cutlass, and aimed a savage blow at his opponent, who turned it. Both men were fine swordsmen, and a terrible combat ensued. But Blackbeard's onset was so fierce, and his strength so powerful, that the Englishman could not do more than protect himself. He retreated, now parrying, now eluding—using his whole art in self-defence. The strokes descended like hail. One tremendous blow the Englishman parried, but in so doing his cutlass-blade was snapped off close to the hilt. Dropping the useless weapon, Maynard drew a pistol from his belt—but too late. Blackbeard aimed a stroke of his heavy cutlass at the young man's unguarded head. One of Maynard's men saw the danger in time, and threw up the weapon on a parry. The direction of the blow was changed, but the force with which it was given was so tremendous, that it beat down Maynard's guard and cut entirely off, the fingers of his right hand. Before Blackbeard could repeat the blow, the seaman gave him a bad wound in the neck, and the blood spouted from the cut, crimsoning his

great beard, and rendering his appearance, if possible, more frightful than ever. The wound instead of weakening him, seemed absolutely to increase his ferocity. He fought with the renewed strength of ten men. He cut down two of the crew who advanced to the rescue. But his life-blood was ebbing fast. Only that fierce, indomitable will was bearing him up. Like the gladiator in the Roman arena, his doom was fixed; it was only a question of time now—a few moments more or less.

For a little while the chiefs were separated in the fray. Between them raged the combat. The decks were slippery with blood. They had no breath now to cheer, or even speak. The clink of the steel was the only sound, as eye gleamed and hand, red with gore, essayed to drive home the blade of the knife. No one asked for quarter—not one of the pirates against whom the fight seemed going. For the huge form of their leader was still in the front and, true to his oath, his sword was rising and falling like a threshing blade. Already he had five bullets in his body. He had received twenty wounds from the cutlass; and not till the blood was drained from his veins would he yield. See! he is about to pull the trigger of a freshly drawn pistol!

He falls to the deck, stone dead! When that towering form went down the battle was decided. Eight of the fourteen were already dead, and of the six who were still fighting all were wounded. They begged for the quarter they never vouchsafed to others' prayers, and they received it.

The carnage was dreadful. Of the fifty men of the King's good ship *Ranger*, twenty were killed outright—three, it was said, by Blackbeard's own hand. Every one was more or less wounded, with the solitary exception of the mate, who, during the whole struggle, escaped without a scratch.

The other sloop of Maynard's returned unsuccessful from the chase, the pirate ship having taken advantage of the tortuous channel to withdraw from pursuit.

No event in the annals of American history was ever more daring, desperate and determined than this battle with the pirates in Okerech Inlet. Blackbeard was no ordinary foe to encounter. Under different circumstances, with good impulses at work in his heart instead of bad, he had qualities that would have rendered his name famous. As it was, all his great courage, his indomitable will united to genius, his born leadership of men, his fertility of expedients, prepared the way for his violent and bloody death, and he but reaped what he had sown. He died as he had lived, asking no quarter, giving none—shedding blood to the last.

His head was severed from his body and fastened to the prow of Maynard's vessel, when he sailed home in triumph. The sailor placed by Blackbeard to blow up the vessel lost the necessary nerve and was found concealed in the magazine with the cocked pistol in his hand. He only was pardoned by turning king's evidence; the rest being tried and hanged in Jamaica, where they were sent a few weeks after their capture.

An ovation awaited Maynard and his brave crew on their arrival in Virginia with their ghastly trophy. The Governor gave a great ball to celebrate the event, and the handsome Englishman walked the *minuet de la cour* with her ladyship, the Governor's wife.

Here my chronicles have end. Would I could follow the dictates of my fancy, and tell how my dauntless hero won the hand and heart of some beautiful Virginia heiress, and lived ever after in the highest state of mortal happiness. But, writing facts, truth compels me to say that history is silent as to Maynard's future. It is a matter of deep regret that the same so linked in Virginia's traditions with the bravest and most heroic encounter of all her many daring and worthy deeds should have passed away with no record of his future life. Certainly the gratitude of the oppressed and suffering were ever his, to follow him with blessings wherever he went, living or dead.

Blackbeard, it is certainly conceded, hid an immense amount of treasure at different parts along the coast. Some averred the place of concealment was in Hogg's Island, next to Cape Charles; others, that Okerech was the locality; and in the olden time not a few of our people believed that a vast amount of the pirate's money was buried at Crany Island in Norfolk Harbor. In this belief many an acre has been turned up with the spade by eager, hopeful seekers of these riches. It is beyond doubt that Blackbeard hid both money and plate. The night before his death he acknowledged the fact to the skipper with whom he was drinking. Being asked if in case of his demise, any of his wives knew where this treasure lay, he replied that no one but himself could find the spot, and his it should be who lived the longer of the two. In no doubt but the distempered fancy of the dreamer have the vast collection of ingots and bars of precious metals, the Dutch guilders and the Spanish doubloons ever been discovered. Like Kidd's treasures, they are as myths.

It is no haloed spot; there no flowers spring in all their heavenly purity; no child's voice lingers on that air. Indeed, I saw it in my dreams—bleak, desolate. No step but his who buried his ill-gotten gains beneath the sod has ever trod his soil. The solitude was unbroken by any sound, save the cry of the sea-fowl as he wheels his flight above the waters, the monotonous beating of the waves upon the shore, and the mournful sighing of the winds, dashing across sea and land, like lost spirits chained to earth. Within his narrow precincts the serpent lifted his crested head and darted his forked tongue; trailing, poisonous vines and dark mosses, entwined in matted rankness, locked in the buried secret; venomous toads and slimy lizards lived and bred in the damp and dark; malarial airs and deadly vapors hung like a thick mantle over the scene and challenged life and interference. And it is said on bleak, wild nights, when the noise of the breakers rises high above the shrieking winds, let loose in tempest; when the stars and moon are blotted out in murky darkness; when the rain dashes madly down, and the lightnings play in lurid darts, a figure steals furtively along the wild, his great beard is tossed rudely by the wind; the hands grasp lantern, spade and mattock. The eyes have a strange, unearthly glitter. The light he carries gives a low, phosphorescent gleam, which casts fantastic shadows, and shines full upon the blood stains on the sands.

Reader, dear reader, should you or I meet alone at such a time upon such a coast this frightful apparition, it would be given to us to know the great Blackbeard had come back to this world of ours to unearth his wondrous treasure.

ALEX. HUNTER.

—A few gentlemen wishing to join a first-class shooting and fishing association can hear of a favorable opportunity by addressing GAME, this office.—L.A.W.

THE WAY THEY DO IT AT THE HUT.—As a guarantee of the future prosperity of FOREST AND STREAM, we have just received a Boston club of twenty-five new subscriptions.

## Fish Culture.

### AQUATIC PLANTS ONCE MORE.

HAD it not been for the FOREST AND STREAM and the discussion of various subjects in its columns, how many of us would have forever remained ignorant of much that is of inestimable value? Thus, in regard to aquatic plants suitable for fish ponds and the aquaria, how much have we learned. Some may think that this and many other subjects have been exhausted, but as science advances we shall wake up some morning in the future, and after looking over the files of our old papers, come to the sudden conclusion that then we were babes, fed only on milk, not strong enough or knowing enough to grasp all in one age. But to the point. Although I have had many years of experience with aquatic plants, I have waited, wrongfully, perhaps, for others to "speak my piece." Now what I wish to say is this: Of all the aquatic plants which I have been enabled to obtain for more than twenty years past, I have never found any to compare favorably with the water-mullfoil, family *Myriophyllum*. The plant grows wholly submerged, the flowering stems alone coming to the surface to mature. It is propagated from its branches, which flourish for a season equally well, floating. But to continue its growth the branches must be anchored in the mud or sand.

For the aquaria it is the most beautiful and valuable plant known, and will afford more oxygen for the life of the inhabitants than any other plant growing in our Western waters. This is the plant that abounds in our private and natural fish ponds and trout streams in this part of the country; and where it abounds it is almost impossible to over-stock the waters. In one of these ponds I have seen more than a yard square of this plant cut off close to the ground by the trout. It was shaved down as neat and as even as you could do it with a knife. What the object was I have not yet been fully able to ascertain. Some thought it for the purpose of clearing a place for beds, but I do not believe this, for the only place thus cut was at or very near the foot of the pond, and in deep and still water. My own impression is that the trout found some nourishment in the fat stocks, or they cut away the plant to get at some animalcula that they could not otherwise obtain from the thick matted beds.

There is another idea. These branches when liberated were taken in a mass by the current and lodged at the gateway, making a fine living shelter for the fish, and this, too, at the very place where the fish delighted to congregate. The plant affords such a great amount of oxygen that I have long thought that it might be successfully used in cans for the transportation of fish. For a full and specific description of the *Myriophyllum* we refer the reader to Gray's Botany. In June and July we can furnish any quantity of it, or it can be had of Fred Kaempfer, dealer in aquaria, 127 Clark street, Chicago, and perhaps at other natural history depots.

The *Vallisneria* abounds in all our lakes and sloughs, but not in our trout ponds or streams. With me it has proved almost a failure for the aquarium, but as an aerator for lakes and more sluggish streams it may be of great benefit, but certainly for trout ponds and streams it has no value to compare with the *Myriophyllum*. Now let me say that the discussion of this plant question will prove of immense value to us. By it we shall surely learn that there are no waters, however sluggish, that cannot be made a natural and healthy habitat for some kinds of fish; and certainly that all living, running streams can be made the home of the brook trout or some of the salmo family.

Lake City, Minn.

DR. D. C. ESTES.

[Thanks to Dr. Estes for beautiful specimens of this plant.—Ed.]

## Natural History.

### For Forest and Stream and Rod and Gun.

#### THE DEATH OF PONGO.

BY FRED. MATHER.

LIVERPOOL, England, Nov. 20, 1877.

A PRIVATE letter from Berlin, dated the 14th inst., announces the death of Pongo, the well-known gorilla of the Berlin Aquarium. His death is a loss to the scientific world, and was quite unexpected. I had an audience with him on the 5th, through the kindness of the Director, Dr. Hermes. Pongo was then slightly ill from a cold, and was in a warm room in bed, but on our entrance he uncovered his head and offered his hand to the Doctor, while turning his large, intelligent eyes upon the stranger.

Upon a request from his friend, which Pongo seemed to accept as an introduction, he gave me his hand, and would that I could utter, as Tennyson sings, "the thoughts that rose," as I took the honest hand of this direct descendant of one of the oldest families! It needed no gaudy armorial crest with rampant lion, nor asthmatic herald with brazen trumpet to proclaim his nobility; his long bony arm and powerful jaw would have been envied by Richard Coeur De Leon, or Regit ald Front du Boef. I read his thoughts beneath his pitying glance, and his great soul was evidently sorry to see that I had so far departed from the original type as to have but little hair upon my face, and none to speak of on my hands; that I had to deprive the living sheep of its wool to take the place of the hair which covered my forefathers, through the effeminate customs of my immediate progenitors in luxuriously clothing themselves with skins and furs, thereby rendering the hair superfluous, and consequently causing it to fall off. He glanced at my foot (luckily a calfskin prevented the mortification of exhibiting to him a foot without a thumb on it capable of holding to a limb while plucking bananas with both hands and the other one); he stuck out his admirable pedal and wiggling its thumb raised his eyebrows as if to say: "Got 'em?" My first impulse was to nod and say, "Oh! yes, I've got 'em, but don't use 'em now," but a look into that honest face, and like Macbeth's "Amen," the words stuck in my throat. Wherefore could I not lie to this simple minded brother? Something in the very confiding manner in which he asked the question banished all thought of prevarication, and demanded that his frankness be met with truthfulness at no matter what cost of personal pride or self-degradation. I despised myself for the thought that for the first moment I entertained of deceiving him in regard to this, and with a cheek burning with humiliation I shook my head and acknowledged that the polished calfskin hid a member useless for anything but the simplest locomotion.

He accepted it with a pitying nod, and generously forbore taunting me by any further exhibition of movement in that direction, and at the earliest moment allowed by quietest showed his good taste by unostentatiously withdrawing a evidence of pollexial superiority beneath his blanket, while could not help fancying him with his juvenile companions in the wilds of Orangumbesi enjoying a sociable game of "thumbs up," and gleefully showing "four of a kind" while "Simon says wig-wag!"

Dr. Hermes is a very accomplished physician and zoologist and did not then consider Pongo's cough and low fever at a dangerous, hence I was surprised to hear of his death so soon and feel pleased that I secured an imperial photograph of this, the only relative of that branch whom it has been my good fortune to meet personally.

Pongo, you will remember, was brought from Africa by Dr. Falkenstein, of the German expedition for African exploration, who founded a station at Chicoco, but who was unable for some reason to penetrate to the centre of the Continent. They remained there several years, and when they abandoned the coast of Loango they brought the subject of this obituary to Europe. He was a presat, I believe, from some native tribe, who, being able to talk or to jabber some thing intelligible to themselves, have thereby fallen into the fallacy that they are the superiors of the other mammals of that region; but my prophetic vision beheld other ships landing the civilizing Anglo-Saxon, with a very small Bible in his belt and a large Sharp's rifle in his right hand, following up the mossy tracks of Stanley, and opening a new world to commerce. But that does not bear on the gorilla question, except as to his probable capacity of yielding "sport" to the rifleman or profit to the animal trader. Poor Pongo! your was truly a "short life and a merry one;" never was gorilla so fated before. His age I do not know, he had been in Berlin nearly a year and a half, and might on a guess be from five to ten years old.

His life in Europe was one grand holiday. He held receptions, and, on his recent visit to England, sat at the table amongst the nobility; was fond of beer and other good things, and was as good tempered and well behaved a gorilla as one could wish. Never did he have to be confined or to submit to the indignity of a chain; but in his apartment in the Aquarium, with his companion, the Chimpanzee, and the dog, alternately slept and played away his life. In England he was respectfully known as Mr. Pongo; a title rather more freely used there than in America, and evidently bestowed from anthropological reasons.

On his return to Berlin his arrival had all the character of the triumphant entry of a distinguished personage, and an enthusiastic reception was accorded him; all the officials at the Aquarium received him in full dress, a grand banquet and serenade was given him, and the Berliners flocked in crowds to see their old favorite.

When we consider the subject, his death is not really so much to be wondered at. My friend Condin, of the Central Park Menagerie, and others versed in the habits of the quadrumanous, all say that they do not live long when removed from their own country. Even monkeys die of consumption or decline of some sort. Even the hardy Esquimaux, when brought down, cannot stand our climate; neither can the savage from the tropics. Civilized man alone, of all beings on this earth, can endure all climates; reared in the temperate zone he can stand the Arctic winter with the dwellers in Upper Navick, or bear the burning sun on African sands with the woolly-headed and delicately-perfumed Zambesian. And, again, the civilized stomach, through long generations of abuse, has a power of endurance unknown to savages. See the years of drunkenness that the white man can proudly recall, and mark the few months in which the red brother is laid with his toes to the roots of the daisies after worshipping at the shrine of a frontier Bacchus. Perhaps this may have a bearing on the lives of these elder scions of our family now under consideration; not that I would insinuate that Pongo was at all bibulously inclined, or even indulged if so inclined, but there most evidently has been change of food which would sooner or later have seriously affected this primitive fellow-creature had not catarrh anticipated it.

Adieu, Pongo! No cloud-piercing column will challenge the passer-by to pause and read thy many virtues, penned by loving fingers; but thy bones will be mounted for the benefit of the anatomist, and thy skin stuffed to resemble life more or less naturally, and instead of being doomed to "lie in cold obstruction and to rot," like us less favored bipeds, thou wilt still keep good company.

Dr. Hermes has several very excellent casts of Pongo taken in life, which I saw and had therefore an opportunity of comparing with the original; they only wanted coloring to be perfect. Pongo's countenance was that of an old negro with an exaggerated nose that looked as if it might have been literally "put on hot and run all over;" the eye was bright and expressive, and the face generally pleasing—such a face as Uncle Tom might have had, only no nigger ever had such a nose, no matter how well-developed specimens of compressed nasal organs can be shown in "Ole Virginny."

I do not remember that Pongo made any allusion to this feature; perhaps he only regarded it as ornamental, and rather a question of taste than physical superiority; or, in a chivalric spirit, forbore to press comparisons further after his triumph in the exhibition of thumbs, his generosity forbidding him to trample on a fallen foe. Retiring to my hotel and eating a good dinner, I think that I must have fallen asleep over my coffee and cigar, served in my own room, for I distinctly saw the door open and Pongo entered, but how changed; he wore a hat of the "nail-peg" pattern, placed most dissolutely on one side, and his unsteady gait told the shocking fact that he was inebriated; further evidence of this was furnished by his seating himself on the table and winking at me while twirling all his thumbs, and singing in a husky voice the following refrain, which seemed in some sort familiar:

"My name is J. Pongo, I was born on the Loango,  
To keep me in Hoangbungijiji my father did try;  
But 'twas no use in talking, I slipped down the Grombeelongo,  
I was bound to see the Aquarium in Berlin or die."

Noticing by an expression of sorrow on my face that I was not in sympathy with his roystering, he suddenly extended his four hands, and, grasping mine, stammered out: "Good-bye, ole fel! ta-ta; be good to yourself," and straightening his head he departed. It is a great pleasure to know that this scene was not a reality now that he has departed, for I would fain entertain a profound respect for his memory.

"He has gone to the land of the great Gboui,  
Where he sits in a tree to watch the moon  
As it sails o'er the flat Grombeeloni plain,  
And we never, no never, shall see him again."

[From a recent number of *Nature* we learn the cause and sad death of Pongo. The post mortem was conducted by

Prof. Virchow and Prof. Hartmann, in the presence of a number of eminent Berlin physicians, and showed that the disease which carried off our friend was acute inflammation of the bowels. The cause of the disease is now no mystery, for there was found in Pongo's stomach the button of a glove, some iron wire and a number of pins.—Ed.]

**NATURAL HISTORY OF THE HOWGATE EXPEDITION.**—Naturalists may await with interest the success or failure of the Howgate Polar Expedition. The interests of natural history and ethnology are to receive full attention. Mr. L. Kumlein, accompanying the party as naturalist. He has been furnished by Professor Spense F. Baid, with the following memorandum:

The region you visit is one of the most interesting in North America and the least explored by the naturalist. It will furnish an ample field for research, especially as you will be on shore the greater part of your absence from the United States. Your great object should be to make collections of everything in the ethnological, animal, vegetable, mineral and fossil departments, so that you can prepare a report on the same, perhaps illustrated, to be published in some suitable manner on your return. In this view you should make copious notes of the habits, association and general condition of everything you meet with.

**Mammals.**—Of mammals, good mountable skins of the polar bear, prepared with alum or saltpetre, will be desirable. A series of reindeer should also be obtained, as well as foxes, hares and other animals. A good series of seals will enable us to solve many questions in regard to their own special home. The walrus, both male and female, should be procured, as many skeletons as are procurable, and several skeletons of all mammals, land and water, will be readily marketable. The skins of cetaceans cannot readily be preserved except possibly in salt. Sketches should be made of the outlines and distribution of color of each, and the corresponding skins and skeletons preserved.

**Whales.**—Particular attention should be paid to the narwhal, of which skeletons are in much demand. Should opportunity be allowed you some skulls of the smaller whales should be procured.

**Birds.**—In regard to birds a special memorandum prepared by Dr. Brewer and myself has been furnished. You will, of course, look very carefully for the small insectivora and constrictors, so as to determine the northern distribution of our species. Probably saxicolous will be frequently met with. Of water fowl the rarer geese, the Labrador duck, Sabine's and Ross' gulls and the ivory gull are most desirable. Any petrels or shearwaters will be desirable. Look out for specimens of the black guillemot with a blackish bar partly across the white of the wing.

Reptiles you will probably not find, unless it may be a frog, which, of course, should be secured.

**Fishes.**—The fishes should be looked after very particularly, and especially the different species of trout, salmon and whitefish, which should be secured, if possible, of different ages and in the different seasons to show the variations of the spawning condition. Any large salmon or trout, say over a pound or two, would be better skinned and the skins put in alcohol, although a sketch of the original should be made. Other species of fish should be secured if they present themselves.

**Insects.**—Of course it will be important to obtain a full representation of the insects of the country—butterflies, beetles, etc. Whatever species of invertebrates are procurable should be gathered in—star fishes, shells, crustaceans and the like.

If you succeed in securing a complete series of all the animal life, if possible in several sets, the great object of your mission will have been accomplished. You should endeavor to secure a variety, but a complete collection will be of much interest.

**Mineral Specimens.**—Any choice mineral specimens should be obtained, especially crystallines. Get samples of all the rocks constituting the strata; these should be sketched, and their overlying position indicated and verified by specimens. Look very carefully for rocks containing fossil remains either of plants or of animals.

**Saurians.**—Some very interesting specimens of saurians have been brought from different portions of Arctic America, while the fossil plants are of very great interest. Make a thorough study of the ethnology of the country, securing as many crania of Esquimaux as practicable, and also skeletons if they can be got. Illustrations of the handicraft of the natives in objects of stone, bone, wood, etc., should be carefully gathered, especially any of great antiquity and such as are superseded by modern articles.

It is not improbable that Mr. Kumlein's investigations may decide finally the much mooted question as to the relationship which the Barren Ground Caribou bears to its woodland congener.

**QUAIL WITH ABNORMAL PLUMAGE.**—We beg to acknowledge from Jas. F. Carr, Esq., of Portsmouth, Va., two quails. One was the ordinary quail, and the other a nondescript bird, of whose identity he seems in doubt. Upon examination we are sure that the bird which excited our correspondent's attention was one of the common species of the *O. virginianus*, with a tendency to albinism. Both birds were females. We have noticed, last season and this, quite a number of quails having a plumage of peculiarly light color, tending to white. One of these, presented to us by Horace Fassitt, Esq., of Philadelphia, we have in our cabinet.

THE LAMPREY.

PHILADELPHIA, Pa., Dec. 15, 1877.

**EDITOR FOREST AND STREAM:**  
When lately looking over a file of your paper, I noticed an article signed "Halcyon" in your edition of April 12, 1877. This writer states that he saw a Lamprey making a dam in a stream of water, and asks to be informed what its object was.

[The Lamprey (*Petromyzon marinus*) inhabits the sea, but enters fresh waters for the purpose of spawning.—Ed.]

Rev. J. G. Wood, in his "Illustrated Natural History," published in London, thus describes the habit of the Lamprey, when preparing for spawning: "When the Lamprey deposits its spawn, it is obliged to form a hollow in the bed of the stream, in which it can leave the eggs in a tolerable safety, and performs this operation with great speed and no

small skill. It takes advantage of the current to help it in its labors; and, by the mingled force of the stream and its own muscular action, soon contrives to carry away the pebbles that would interfere with the well-being of its future young. The process is simple enough: when the Lamprey has fixed upon a suitable spot by its unfailing instinct, it surveys the locality for a short time, and then sets vigorously to work. Fastening itself to one of the obnoxious pebbles, and disposing of its body so as to gain the strongest hold upon the rushing stream, it 'backs water' with wonderful energy, and fish and stone are soon seen tumbling together down the current. In this way the Lamprey will remove stones of such magnitude that a fish three times its dimensions would appear unable even to stir them. As soon as the stone has been moved a yard or two away, the Lamprey wriggles its way back again, and takes possession of another stone. By a repetition of this process, the hollow is soon made and the industrious fish is able to deposit its eggs therein.

Last summer, while shark fishing on the coast of Nantucket, a shark was hauled aboard, to which was attached a Lamprey, which was sucking blood from the fish, and which did not release its hold until it had been out of the water for some time. J. W.

ALL ABOUT DEER.

**EDITOR FOREST AND STREAM:**

I wish you would be so kind as to give space in your valuable journal to the following explanations to "Sycamore".

The reason I say that deer will go off with their tails down when a shot passes close to their heads is from this fact: In the days now passed and gone, when deer were so numerous that I was not very particular whether I killed or not, I used to exercise my skill with the rifle by shooting at their heads, and I would make an occasional miss, and the deer would run off with its tail down, and act as though it was badly wounded; but upon bringing it down with the second shot, I could not find any sign of the first. Now, sir, I consider myself a pretty fair rifle shot, therefore I have reason to believe that my ball passed pretty close to the deer's head. As I think I have given "Sycamore" a sufficient explanation, I will add one for friend Clark, and at the same time beg him to favor the readers of FOREST AND STREAM with his views regarding the horns of the deer, as being an index to their age; he doubtless can throw some light upon the subject, as he has possessed a herd of deer for several years. Friend Clark seems to think that the deer I spoke of as being over a year old, as it had no spots, was a fawn of that year, but it was not. Although he is right about the fawn's not retaining its spots longer than four months, he seems not to be aware of the fact that the fawn shows the blue before its spots are entirely gone. The one I spoke of was perfectly red, no blue hair on him, and he was about as large as two fawns would have been at the time I killed him. I await the next. ANTLER.

[The foregoing communication has been inadvertently pigeon-holed for several weeks. We hope the hiatus will not impair the value of the discussion between the writer and his friends, from whom we hope to hear in due time.—Ed. F. and S.]

CALIFORNIA MOUNTAIN QUAIL.

LOS ANGELES, Nov. 18, 1877.

**EDITOR FOREST AND STREAM:**

In the FOREST AND STREAM AND ROD AND GUN of Nov. 3, I notice a query as to the probability of California quail standing the cold weather of your Eastern winters. I may be mistaken, but my impression is that the experiments of introduction have been made with our valley quail only. The mountain quail is a much hardier, as well as in every way, a finer bird; and would, I think, live and do well in the Middle and South-western States. They remain in the snow belt on the San Antonio (Coast Range) Mountain throughout our winter, and although the orange trees are in blossom in the valley, it is cold enough up there, as I have many good reasons to know. I am sorry that I am not ornithologist enough to describe, technically, the two birds, but I am well acquainted, practically, with the habits, range, appearance, etc., of both varieties. If you wish it I will write you what I know. H. M. MITCHELL.

[We should be very glad to hear from our correspondent on just the points which he mentions.—Ed.]

Woodland, Farm and Garden.

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, SEO. N. Y. HORTICULTURAL SOCIETY.

SHEEP RAISING IN NEW MEXICO.

HOME RANCH, CINNAMON P. O.,  
New Mexico, Dec. 4, 1877.

**EDITOR FOREST AND STREAM:**

"Sheep raising in New Mexico" has been the subject of many a letter to the press, but my opinion of every one I've had the fortune to read is that it has been written by a party who knew only what he had been told of the business, and it may be that my six years' experience as agent for the Burdett Loomis Sheep Co. has taken the romance out of it, and mine may be too practical a letter to be readable.

This country is so very little known, I cannot expect to be understood. If I should give a description of the country, and not write its history, which would be so long and dark, I'd not care to relate it, even if I were capable. The sheep of this country were formerly from Spain, and were without doubt pure Spanish merino, but from the ignorant manner of their breeding in this country they have deteriorated till they do not bear the slightest resemblance to the pure stock, and even breed the most curious monstrosities, such as four or more horns, and they often have a third horn in the centre of the forehead, while the fleece has become so coarse it is often nearly worthless; and the average weight of the unimproved Mexican fleece is not over one and a half pounds per annum. This may seem a dark outlook for improving a flock out of such a stock, but the effort of a cross of any fixed blood on these mongrels is wonderful, and produces a half-breed we need not be ashamed of, and the increased weight of fleece and improved quality makes the improvement a good investment.

Mexican ewes cost an average of about \$2 per head. They are very hardy, good mothers, and their mutton is equal to any in the world for sweetness and excellence of flavor, though they are too small for good mutton sheep.

Some of the flock owners have great numbers. Two or three families claim to have more than 100,000 sheep each, and those probably live at their ease, surrounded with peons, and in a style very much like the old cotton planters before the war. Some of these large flock-owners have caught the

spirit from the white men who are growing improved sheep all around them, and have introduced fine merino and cots-wold rams to their herds, and only the smaller bands soon will be what we call here "natives."

I trust I will be excused if I speak of the flock in my care, which is one of the best improved flocks in the territory, numbering about 10,000 head, and shearing nearly five pounds per head per annum. This flock was started in '72, from the best improved ewes we could buy, and has been bred with care, and a view to mutton and wool qualities, and we cannot realize that it bears any relations to the native breeds by its appearance now. Owing to financial embarrassments of Eastern proprietors the flock has recently been offered for sale, together with the finest ranches in this part of the country, and to cash purchasers will be sold at a great bargain.

Having ground this ax, I will say, the fact that sheep can graze the year around without shelter or any provided food, save the natural grass and the superabundance of free pastures, makes the growing of wool a complete success, and it is no longer an experiment. The grass dries on its roots, and is kept during the winter in the dry climates like concentrated nutrition; and it is wonderful how well the stock keeps its condition through the winter.

The lambing season is latter April and May, and the grass starts enough for good feed for the earliest lambs. July and August furnish the rain for the year, with the exception of now and then a shower before and afterwards, on rare occasions. The climate is wonderfully beautiful, and is especially good for those inclined to pulmonary troubles.

The altitude, being about 6,000 feet above sea level on the plains, gives a rare and pure air, and the climate has a fascination for every one who tries it. Were I to write of its game and people, and the grand scenery, it would take too much of my time, and my "capability" may already be a matter of doubt, so I desist. I am, with respect, very truly yours, H. M. ARMS.

For Forest and Stream and Rod and Gun.  
ORIGIN OF THE VARIOUS CLASSES OF STRAWBERRIES.

THERE is no *Natural Order* of plants with which cultivators of fruits are more generally acquainted than *Rosaceae*, and, perhaps, there is none that is more variable in character, or, in other words, less constant in fixedness of specific distinction. So much is this the case that our systematic botanists are often confused in the determining of species owing to this peculiarity. True, we can commonly trace very distinctly the difference between the several genera, as for instance, *Rosa*, the family of rose; *Rubus*, the Blackberries and Raspberries; *Fragaria*, the Strawberries, etc.; but when we come to examine more in detail and get among the so-called species of the several genera we find a sportiveness of character that oftentimes baffles the stickler for hereditary exactness, and acts as a barrier to whomsoever would endeavor to describe, in words, the minutiae of outward form or organic structure.

The genus *Fragaria*, that is the Strawberry family, is no exception to this rule, and yet, notwithstanding, there are several apparent species found growing in their native habitats which hold their individuality somewhat firmly so long as nothing transpires to interfere therewith, or no other species is located in the same neighborhood, and whereby the pollen of either may fertilize its companion. We have, however, ample evidence that our present subjects are not very particular as to the laws of monogamy, the result being a remarkable increase of varieties from seed.

This being the case, let us consider the source from which, and what has conduced towards the bringing about of the great improvement in size and quality of our strawberries during the last thirty or forty years. At the commencement of this period the only strawberries in cultivation in the United States were but a slight advance from the native species, while at the present time American strawberries are equal to those of any other country, either in size, flavor or texture.

The several species that have given rise to the numerous varieties, both here and in Europe, are *Fragaria virginiana* with its sub-species *lowensis*, *vesca*, *chiloensis*, *grandiflora*, *elatio* and *collina*. These have, as established by botanists, some claim to specific differences, with finely drawn and distinct characteristics, provided we keep out of the never-ending hunt after ever-changing minutiae which some persons are so prone to.

To make this part of our subject plain it may be well to give the most prominent and distinguishing characters of these respective species with a few remarks, incidentally by the way, as we travel along; and, firstly:

**FRAGARIA VIRGINIANA.**—A native of our Atlantic States—Fruit roundish ovoid; achene, or seeds, imbedded in the deeply pitted receptacle, or what we generally call the berry; flavor, sub-acid; texture, soft. These characters are somewhat absolute and direct, and there is no mistaking the organic form. This species is certainly the original parent of what are known as the *Scarlet Class*, including such sorts as Jersey Scarlet, Roseberry Scarlet, Grove End Scarlet, and, possibly the Iowa Seedling, by some considered as a species, viz., *Fragaria lowensis*, and many others. Allow me to remark here that this sub-species, if such it be, is very distinct from *Fragaria virginiana*, and yet it partakes of the latter's general character as to robustness, softness of fruit and sour flavor; but the Iowa is larger and more globular, with the base of the fruit sunk down upon the calyx, and we may venture with certainty to assert that most of our largest varieties of years gone by, such as Ohio Mammoth, McAvoy's Superior, Austin, etc., in fact all the former Western kinds of any note, had their origin from this base, and even those of the present day have been so affiliated in connection with the European kinds, and consequently a portion of the firmness of flesh and sweetness of *Fragaria chiloensis* is established in their quality. Hence we may account for the well known difference between the American sprightly sub-acid flavor compared with the European honeyed sweetness, the latter having a preponderance of the *Chiloensis* with some admixture of the indigenous species, as found there, viz., *F. vesca*, and perhaps a trifle of the native aromatic *F. elatio*. In connection with these conclusions I quote the experience of that reliable authority on these matters, John Dingwall, of Albany, N. Y. He says in a letter to me, "The Austin originated a few miles from me by the Shaker Community and was named after one of them, Jeremiah Austin. It was an accidental seedling of an old variety known as the Iowa, which was identical with it, but being a seedling, perhaps it had a little more vigor and no doubt was better cultivated, but its foliage, its habit, its color, its flavor were out and out Iowa. The Iowa, I believe, is the indigenous strawberry of that State and largely culti-

ated at one time around Cincinnati, and known under the name of the Washington, and first brought into notice this way by Robert Buist, of Philadelphia.

FRAGARIA VESCA—Achenia, or seeds, superficial on the conical or hemispherical fruiting receptacle (not sunk in pits). This species has the greatest geographical range of the whole genus, being indigenous to Europe and North America. It is subject to great variation in the different localities where it is found in a wild state, and hence by speculative and theoretical observers has been accepted as good material for displaying and encouraging their species-making propensities. In some examples the fruit is globular; this is generally the case in Europe, while in others it is conical, but invariably the seeds are either raised above or level with the outer surface of the receptacle. Sometimes the flavor has a honeyed sweetness and is always less acid than the Fragaria virginiana. This species, in the remotely first instance, has been one of the parents of some of the European sweeter varieties.

FRAGARIA CHILOENSIS.—This species is indigenous to the western slope of our continent, from Puget's Sound to California, and, most likely, on to South America, although we have no record of its having been found near the Equator. Torrey describes it as follows: "Flowers, large spreading; leaflets coriaceous, broadly ovate, very obtuse, coarsely serrate, rugose, very silky-villous beneath, peduncles and calyx silky." And Loudon says: "Large oval, thick hairy leaves, and large flowers, the fruit large and very firm." There is no species of strawberry that is so changeable of character in its native habitats as the Chilensis, and hence the many aliases that have been applied to it by the different authors and botanists, but the above descriptions cover the general ground and establish the identity of a very distinct organism. We find these characters more or less prevailing in all the largest and finest varieties in Europe, and those of the same quality in America testify to the same structure, only somewhat in a lesser degree, consequently we may claim with tolerable certainty from this standpoint alone that the Chilensis has entered largely, and originally, into the constitutional organism of the best kinds from a structural consideration; and the history of said sorts, if it could be correctly collected, would, most likely, conform to this conclusion. For instance, the English varieties, Myatt's British Queen, Willmott's Superb and Keen's Imperial Seedling which are known to be nearly pure from Chilensis former stock. Also our once famous Wilson's Albany Seedling, a cross (on the maternal side) of the British Queen fertilized by the Ross' Phoenix, a native variety of the Iowa type.

With regard to the history of the Wilson I again quote Mr. Dingwall, above mentioned, who says: "About the year 1845 or 1846 Mr. James Wilson, of this city (Albany), originated this strawberry. I have been acquainted with it from its first appearance in the seed pan till now. It was raised from seed of the well-known English variety the British Queen, impregnated by one known as Ross' Phoenix, a variety raised by a worthy old Scotchman named Duncan Ross, of the city of Hudson, New York State, a good berry but not very productive. I have seen nothing of it for many years. So much for the origin of the Wilson strawberry, although now getting out of date it has had a run exceeding any other variety known to me, and stood on its own merits." Now when we compare the character of Wilson's Seedling with the well-known firmness of flesh of the Chilensis, and, also, the preponderating same quality which exists in the British Queen, as grown in Europe, which is derived from its close relationship with this species, it may be plainly seen where the Wilson's best properties, viz., solidity and free bearing, comes from, and why it has been so good a berry to withstand the usual tumbance conveyance to market, with so little injury. The peculiar sourness has undoubtedly been acquired from the natural Iowa breed. Please to notice that the Wilson's Seedling derives its constitutional vigor from both parents, and the free bearing quality and texture from the maternal side, while the flavor of the fruit is similar to the male.

New Brighton, S. I. WM. CHORLTON.  
(To be Continued.)

HOW TO TREAT WET BOOTS.—When the boots are taken off fill them quite full of dry oats. This grain has a great fondness for damp, and will rapidly absorb the last vestige of it from the leather. As it takes up the moisture it swells and fills the boot with a tightly fitting last, keeping its form good and drying the leather without hardening it. In the morning shake out the oats and hang them in a bag near the fire to dry, ready for the next wet night, draw on the boots, and go happily about the day's work.

SPLIT BAMBOO RODS.

To our customers and the public:—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

Sea and River Fishing.

FISH IN SEASON IN JANUARY.

SOUTHERN WATERS.

Pompano Trachynotus carolinus. Grouper Epinephelus nigritus. Drum (two species). Family Scia-TROUT (black bass), Centrarchus nida. Kiuffh h. Menticorax nebulosus. Sea Bass, Sciaenops ocellatus. Sheepshead, Archonargus probatocephalus. Snapper, Lutjanus ocaus. Striped Bass, or Rockfish, Morone americana. Tallofish, Xenotomus saltatrix. Black Bass, Micropterus salmoides. M. nigricans.

FISH IN MARKET.—Bass, small, 25 cents a pound; large 20; bluefish, 15; salmon, frozen, 30; mackerel, 25; shad, 25; herring, 75 cents each; some few northern, 35; green turtle 20; terrakin, \$18 a dozen; frost fish, 8 cents; halibut, 20; haddock, 6; codfish 6 to 8; blackfish, 15; flounders, 8 to 12; eels, 18; lobsters, 10 to 12; sheep's head, 25; scallops, per gallon, \$1.50; soft clams, per hundred, 30 to 60; whitefish, 18; pickerel, 18, smelts, 10 to 12. Several shad in good condition have been caught on the North River at Hudson.

MOVEMENTS OF THE FISHING FLEET.—The number of fishing arrivals reported the past week has been 9, viz.: 3 from the Banks, bringing 20,000 lbs. cod and 36,000 lbs. hal

2 from New Brunswick, with fares of frozen herring; 2 from Georges, one with 30,000 lbs. round cod, and the other with 16,000 lbs. split cod and 5,000 lbs. halibut; and 2 from cod-fishing trips eastward.—Cape Ann Advertiser, Dec. 28.

THE GLOUCESTER FISHING LOSSES OF 1877.—The year 1876 was a remarkably disastrous one; twenty-seven Gloucester vessels of a value of \$150,000, and 212 seamen were lost. This year has been one of almost unprecedented freedom from loss of life and property. The losses of seven vessels aggregate a value of \$23,936, and the total loss of life has been thirty-nine men

CONNECTICUT—Lakeville, Dec. 28.—A pickerel of two pounds weight was taken here Dec. 22 on a spoon hook from boat.  
W. H. W.

FLORIDA—St. Augustine, Dec. 25.—Fishing is now good. Sheepheads are biting voraciously at Matanzas. Fishermen at the St. Sebastian bridge report the sport excellent.

AN ADVENTURE WITH A SALMON.—My friend, Mr. Robert Mead, having given me permission to fish the Finn River, which he has leased from Mr. Styles, the popular lord of the soil, I started for Killetoevok Glebe, Stranorla, the residence of my brother-in-law, the Rev. Charles Jones, for a week's salmon fishing. My first day proved successful, having killed two good fish. The next day was a blank, "rain overhead," or some other unaccountable cause preventing the fish from rising. Having decided on making an early start next morning, six o'clock saw me on my way to my favorite pool, which is just above what is known as the "Broad cast," and not three hundred yards from the Glebe. Just as I came opposite the pool I saw a fish rise. At this time it was raining, and there was every appearance of heavy rain up the mountains. I got all ready to have a cast over the fish; but, on going to the bank, I found the river running strong between the bank and the rock, from which alone you can fish the pool. However, I was not going to be deterred by wet feet; so over I went. I had not taken many casts before I was in the fish, and it soon became evident that he was a good and game one. Whilst I was playing him I remarked that the water was rising fast, and from time to time I had to move higher and higher on the rock; and, bearing in mind the reports I had heard of this river rising "six feet in ten minutes," knew that, unless I had brought matters to a speedy conclusion with my friend, that I should either have to take up my abode on the rock for twenty-four hours or swim for it, which was no pleasing alternative. So monished, I put on additional strain and gave my friend the entire weight of the rod and not an inch of line. It was wonderful how the casting-line stood the strain; however, I had no time to be particular. My fish should either come or go. The strain at last began to tell and I felt him yield somewhat. Inch by inch I brought him to the top, but only for a moment, when away he went again, and at it we were as fresh as ever. All this time the water was rising fast and furious. Again he yielded, and up his head came, showing some signs of fatigue. To the rock I brought him, and, with gaff in hand, I stooped to give him the coup de grace; but he was too quick for me. Away he went again like a flash of lightning, rushing into the rough water, where he took one heavy tumble, and snap went my cast. For a moment the fish remained on top of the flood as though stupefied, and the next he was gone. If my friend was off and not landed, I had the same story to tell, for I also was off and far from being safe landed. Having now time to consider and realize my position, I found it not at all an enviable one. I was twenty yards from the bank, the river rushing and hissing all round me, and no one near to give me aid should I require it. I decided at once not to remain on the rock to be swept away, but to swim for the bank, and at once. My chief anxiety was how I should get my watch over safe and dry. I took it out of my pocket and placed it in my hat; but, on looking at the torrent, I came to the conclusion that I could not keep my hat on in such water. Having come to this conclusion, I proceeded to undress, rolled my watch in my vest, my vest in my coat, both in my waterproof, and placed all in my fishing bag, which I strapped well round with the belt. I then took down my rod, secured my salmon line to the strap of the bag, and, having paid out sufficient line, I cast the reel to the bank, and thus, as I hoped, had secured a safe way of getting my watch, etc., safe to land. Having shied across my boots, it now behooved me to look out for my own safety. About mid-channel there happened most fortunately to be a large rock. This formed a sort of eddy, or back current. I saw that this was my only chance. If I could get to this rock I was safe. Accordingly I went as far above it as I possibly could, and the next moment I plunged into the river, and was swayed like a cork beyond the rock, having failed to catch it in passing. However, two or three strokes brought me into the back water, and then I had no difficulty in reaching the rock. Once on it all danger was over, for I knew I could swim to the bank from it. Having rested for a few moments in the water again, and after a short and hard struggle, I found myself within reach of a friendly branch of a tree, and the next moment saw me safely landed. Now came the question how to regain my watch and clothing. To run to my room, put on dry clothes and return, was only the work of a few minutes. This time I had the assistance of my nephew. When I came to pick up the reel and pull over my parcel, you cannot conceive my chagrin and anxiety when I found the line had got foul in the branch of a tree, so that I could not get a pull at the parcel on the rock. Fortunately we had brought another line with us. To this we tied a stone so as to cast it across the bundle the moment it left the rock, which we expected it would do each moment. We were not kept long in suspense, for the water soon rose and carried it off. The moment it moved we had the line across, and proceeded to pull in to the bank with every hope and prospect of success; but the river proved too rapid, and the moment the strain came on the line, snap it went, and off went my bundle, watch, chain and all. For a few moments we kept it in view, but down the river it went like a race-horse, and we could now do nothing but deplore my loss, which I estimate at upwards of £10. I was told by many that I would recover all, and that it could not go far; but any one who saw it rushing down the river would come to a different conclusion. Soon the news of my adventure and loss spread, and, having offered a reward of £5, half the country were on the river banks next day, but until the river fell there was no chance of finding my property. It was at 7:30 a. m. on the 5th inst., that the parcel was swept away, and at 8 o'clock this morning it was found by a man of Sir Samuel Hayes', named Kee, at Drumboe, a distance of five miles from the starting-point. The watch appears nothing the worse for the journey.—London Field.

Game Bag and Gun.

GAME IN SEASON IN JANUARY.

Hares, brown and gray. Wild duck, geese, brant, etc.

FOR FLORIDA.

Deer, Wild Turkey, Woodcock, Quail, Snipe, Ducks and Wild Powl.

"Bay birds" generally, including various species of plover, sand piper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocets etc., coming under the group Limicola, or Shore Birds.

CONCHA.

MASSACHUSETTS—New Bedford, Dec. 28.—The warm weather kept the game birds in the upland woods, and of course where every tiro, as well as veteran could get a shot at them. As a result for the last fortnight birds have been very scarce, but hares and rabbits plenty in this vicinity. A flock of wild geese passed over last week (Dec. 22), denoting warm weather north of us.

Salem, Dec. 26.—Since last accounts there has been little done with the gun. There is a sportsman's club at Lynn, which is quite active. They have glass ball shoots more or less each week at the base ball grounds. Some good shooting is done by Messrs. Loud, Holbrook, Nichols and others. Some rabbits have been shot in Ipswich. A large flock of geese flew in the outer harbor a few weeks ago. Goosanders, old squaws, etc., are reported as quite plenty off the upper end of Plum Island. Gulls numerous. An accident recently occurred in Jamaica Plains worthy of note. A partridge flew into the window of a house, and after flying around lively, evidently bewildered, was finally captured, and went the way of all good partridges. This, in a section tolerably well settled, must be owing to some misunderstanding in the B. umbrella family.

CONNECTICUT—Lakeville, Dec. 28.—I send you record of one on two rather unusual "takes" for this season of the year: Dec. 21, shot a cow blackbird (Molothrus peccati) out of a flock of perhaps a dozen. Dec. 28, Wilson snipe shot near here by C. M. Turner. With regard to ruffed grouse, we close the season with a score of twelve hens out of about 175 birds shot, showing a slight increase in the proportion of hens in the birds killed for the last two or three weeks, and with more birds in our immediate vicinity than at the opening of the season, they having come off from the mountains in sufficient numbers to more than make up the list of "casualties."  
W. H. W.

New York—Dunkirk, Dec. 29.—It is worthy of mention that our principal hunter here sums up his fall work as follows: Two hundred partridges, 100 plovers and red squirrels, a large number of rabbits and four red foxes.  
E. B.

PENNSYLVANIA—Pottsville, Dec. 24.—Within the past three weeks our fields and forests have become well stocked with pheasants, quails, wild turkeys, and rabbits. A deer is now and then brought in town. Our market is stocked with all kinds of game, which commands a ready sale at advanced prices.  
DOM PEDRO.

VIRGINIA—Stafford, Dec. 21.—Wild turkeys have been more numerous than they have been for many years, and large numbers have been killed. In one day fourteen were bagged by Mr. Thomas Bullock, a gentleman living a short distance from Falmouth.

Page, Dec. 21.—William Barran, last week, at one shot killed three wild turkey gobblers, each weighing eighteen pounds. They had beards that measured ten inches in length. They were decoyed within a few feet of the blind where Mr. Barran was hid.

Lunenburg—A correspondent of the Richmond Whig writes from Lunenburg: There are more deer in this county than have been here for half a century, and the sentiment of the people is opposed to their being hunted or shot at present. But they never can be exterminated as heretofore if the law is rigidly enforced. Extermination comes by aid of the snow, and as the law lets down on the hunters the 15th of this month, there is rarely snow enough before this time to do damage. I was down in the lower end of the county about ten days ago, east of Flat Rock. The Messrs. Neblett and Major Stokes were out with their splendid pack. The fox was up, and I never heard more splendid running.

Piedmont, Dec. 20.—The Virginian records the success of a hunting party, composed of Messrs. Howard Reveley, Thomas C. Reveley, Thomas Winslow, E. W. Williams, and R. C. Grymes, who camped in the wilderness in the lower part of the county, for an old-fashioned hunt. Between Monday and Saturday they had succeeded in bagging fifteen turkeys, supposed to be wild; ten pheasants, and forty-nine rabbits, or old hares, as they are sometimes called. The party report deer as being quite abundant in the wilderness this season.

SOUTH CAROLINA—Charleston, Dec. 23.—Several parties spent Christmas in the woods and found sport first rate. Our company bagged two deer, wounded two more, but lost them. A fine fox chase was a feature of the day. Some good bags of birds brought in.  
ZENOTS.

MISSISSIPPI—Corinth, Dec. 28.—Weather has been too warm to shoot much; have made some small bags of quails. Dr. P—killed two fine gobblers—right and left—one day last week. Squirrels numerous in the bottom. Five or six of our sportsmen are off to-day, for the pine hills, after deer and turkey.  
GUYON.

OHIO—Greenville, Dec. 27.—Game in this vicinity plenty. Farms posted, but sportsmen have little difficulty in securing permission to shoot. The following bags have been made: Dec. 4 to 6—N. Nelson, 86 quail; Dec. 9 to 12—J. Clave and E. Hawfagh, 205 quail, 9 pheasants, 9 rabbits; Dec. 14—45 quail and 3 pheasants for two men; Dec. 20 to 25—56 quail for 3 men; Dec. 20—54 quail, 6 rabbits, one red fox, to one man.  
NEMO.

CUVIER CLUB.—We are indebted to Hon. Thomas A. Logan, secretary of the Cuvier Club, of Cincinnati, for an invitation to the Fourth Annual Reception, Jan. 1st. We content ourselves with a hearty New Year's greeting to all the members.

WISCONSIN—Watertown, Dec. 28.—I have it from several of our citizens that Saturday, the 22d, they saw not only robins, but two flocks of wild geese going north, besides a number of ducks.  
S. S. W.

COLORADO—Denver, Dec. 23.—A band of from four hundred to five hundred elk were, at last accounts, ranging near the head waters of the Troublesome River, some fifteen or twenty miles from the West Sulphur Springs, in Middle Park.

CALIFORNIA.—A correspondent at Yuba City, Sutton Co., says that section affords advantages and opportunities for shooting wild fowl second to none on the globe.

A NOVEL CAPTURE OF BRANT.—“Two years ago old man Cole found two flocks of brant fighting each other on his island—a very muddy place. The fight was so severe that the plucky fellows were completely besmeared with mud, and unable to fly away on the approach of Cole and his two daughters. They caught nearly a hundred, and took off the first joint of the wing. He now has brant by wholesale.” This story came from a responsible person. ARROW.

[And these birds, bespattered with the mud of interecine war, are the same whose notes are heard, high in the stilly air of night, by the poet. What a fall, from the cerulean vault to a duck-coop; from poetry to mud!]

STILL THEY COME.—From every part of the United States and Canada, from North and South America, from the West Indies, come in the answers to our puzzle, more numerous than all the blackbirds that ever flew, or squirrels that scuttled up hickory-nut trees, or woodcock that flittered in the thickets. The worst of it is, that everybody hits it; the answers are all correct. The problem is solved in an infinite variety of ways. Algebra is wrestled with, and fluxions, logarithms, coefficients, multiples, surds, calculi, differentials and aliquot parts, are overhauled, computed, supputed and made subservient to the blackbirds, squirrels and woodcock. If addition, subtraction, multiplication, division, involution, evolution, differentiation or integration ever made anybody happy, we are those persons. The only person who is not serene is the office boy, who groans under the weight of the mail. Never more will we do such a thing, until we hire a Lady Sphynx as part and parcel of our editorial corps, then look out for a difficult problem.

The answers have, however, a real practical use, whether by accident or design, and it is very hard to fool with numbers—the results show true sportsmanlike details. Blackbirds are shot in flocks. So 3 shells to kill 48 blackbirds are not out of the way, you have to take individual pops at the squirrel, and a fair shot ought to kill a squirrel at every fire, unless he falls in the crutch of a tree. But as to the woodcock, ahem! Ten shells for each *Philohela minor* cannot be called very good shooting. Now, as a shell costs on an average 5 cents, next time we buy a woodcock and have to pay 75 cents for him, recollecting that it took ten 5-cent shells to kill him, we shall put down our money without a grumble. Yes, numerous kind friends, the answer is—well, suppose we give it in poetical form:

Eight and forty blackbirds sitting on a hill,  
Bang went three shells, and did all the kill.  
Seven and forty squirrels sporting on a stump,  
Bang went 47 shells, and hit 'em in a lump.  
Then a muff he went, with an old fint-lock,  
And he wasted fifty shells on five woodcock.

BIRDS FOR TRAP SHOOTING.—In reply to numerous questions as to where birds can be had for trap shooting, we have to say that there is nothing reliable as to the purchase of pigeons for trap shooting in New York. The best that can be done is to apply to the poulterers in Fulton and Washington Markets.

GUN TRIALS.—As we have been asked to give the method employed for testing guns we reproduce that used at the Chicago gun trial in 1874:

All the guns were fired from a frame, the heel-piece of gun set 40 yards from the target board, which was a square surface of pine one inch thick, supported by two upright pieces of pine two by four inches thick, set three feet in the ground and firmly braced. On this target board was clamped a sheet of strong manilla wrapping paper, having described on its exposed surface a circle 30 inches in diameter. In the centre of this circle, and pressed firmly against the target board, was placed the penetration pad, which was composed of 40 thick-nesses of heavy brown paper, full sheet 48 by 60 inches, 380 lbs. to the ream, cut and pressed by book-binders' press and the edges of each pad glued firmly together, the size of each pad being 9 by 10½ inches, and each pad weighing 13 ounces and 5 drachms avoirdupois. In ascertaining the result of the firing a 30-inch circle was made. In the middle was a square called the central pad, and the rest of the circle was divided by a perpendicular and horizontal line, each part being called respectively: Central Pad, Right Upper, Right Lower, Left Upper and Left Lower quarters of the circle not covered by the central pad; or C. P., R. U., R. L., L. U. and L. L.; the letters Pen. signify penetration. In determining the penetration the last leaf of paper in the pad broken by a single shot is counted. The shot used was No. 7, 4,954 pellets per lb. avoirdupois, 809 10-16 pellets per oz. actual count. Charge of shot for all guns 1 oz., measured by Dixon dipper, No. 1, 106, and struck off. Powder, Dupont's "Eagle Ducking," No. 2, charge 4½ drs. for 10 bore guns, 4 drs. for 12 bore guns, and 3½ drs. for 16 bore guns. In addition to the three rounds fired with graded charge of powder for different bores, one round from each gun was fired with a uniform charge of 4 drs. of powder and 1 oz. of shot measured as above. Eley's blue shells were uniformly used.

—J. C. Grubb & Co., of Market street, are the Philadelphia agents for the Nichols & Leferer breech loading guns.



CAPTAIN A. H. BOGARDUS.

CAPTAIN BOGARDUS.—Capt. Bogardus, who shoots today at Gilmore's Garden, and whose proposed performance of breaking 5,000 glass balls in 500 consecutive minutes, loading his own gun, has never been attempted before, is well known, both in this country and abroad, as a most remarkable shot. In an exceedingly interesting work, written by Capt. Bogardus, entitled "Field, Cover and Trap Shooting," the Captain thus speaks of himself, and how he commenced at fifteen to handle a gun:

"I was then a tall, strong lad, and have since grown into a large, powerful, sinewy, and muscular man. I have always enjoyed fine health, had great strength and endurance, and been capable of much exertion and exposure. When I began to shoot, there was a good deal of game in Albany County, and it chiefly consisted of ruffed grouse and woodcock, which are difficult birds for new beginners. I received no instructions from anybody, but I possessed a quick, true eye, and steady nerve, and had, as I believe, the natural gifts which enable a man to become in time, with proper opportunity, a first-rate field shot. It was a long time after that before I ever shot at a pigeon from a trap, and I confess that I had for many years a strong prejudice against that sort of shooting. There were no quail, snipe, or ducks about Albany County at that time, and it was not until removed to the West that I became familiar with them and with the pinnated grouse. Seventeen years ago I moved to Illinois, and settled on the Sangamon River, near Petersburg. It was more a broken, swampy country, with much cover, than a prairie land like that to the northwards in the State. Game of all sorts was in vast abundance. There were vast numbers of quail; the pinnated grouse were rather numerous, though nothing like as much so as upon some of the great prairies; ducks and geese came in immense flocks every spring and fall, and deer and turkeys abounded. It was, too, and is to this day, one of the best places for snipe that I know of. It was a paradise for a sportsman; and as for the snipe and quail, there was hardly a man who could kill them except myself. Lots of men used to go out to see me shoot. There was one, a great hunter of deer and turkeys, with whom I became very intimate. At first he laughed at me when he saw me loading with No. 8 shot. 'That wunt kill nothin', stranger,' said he. 'What little I do to quail I do with No. 1 shot, and for prairie chicken I always use BBs. You can't stop 'em with anything lighter.' But he changed his opinion when he found by experience that I could kill 'em with his one, and then it was the old story of the fox and grapes. 'Darn the little creatures, I say!' he exclaimed; 'I got no use for 'em anyhow!' At that time I used to stint myself in quail-shooting time to twenty-five brace a day. When I had got them, I gave over for the day."

Capt. Bogardus became first noted as a pigeon shooter in 1868. In 1869, in a match against time, Capt. Bogardus to kill five hundred pigeons in six hundred and forty-five minutes, he won the match, having an hour and fifty-seven minutes to spare. On the 21st of October, 1869, he accomplished the wonderful feat of killing one hundred birds straight. Capt. Bogardus is the winner of innumerable badges and medals. A feat in the field which one reads of, but which Capt. Bogardus has been known to accomplish, has been to kill a grouse with each barrel as the pack rose, and, slipping in another cartridge, to kill a third bird out of the same pack.

Of late Capt. Bogardus has devoted a great deal of atten-

tion to glass-ball shooting, and has given rules and regulations governing this most pleasant amusement. In the new edition of Capt. Bogardus' book, to be issued shortly, will be found the rules for glass-ball shooting. Capt. Bogardus' style of shooting is quiet and easy, even deliberate. He seems to get his aim intuitively, and to find the exact moment when to discharge his piece. Never flurried nor excited, though his movements are neither mechanical nor automatic, still there is an impassiveness about the Captain which is quite remarkable. Birds or balls rise, a gun is fired, and the bird falls, or the glass ball is broken into fragments. Should the Captain succeed in accomplishing the feat he proposes at Gilmore's Garden, it will become one of the most noted events in the annals of shooting. It will prove three things: Firstly, the endurance of the man; second, his wonderful skill; and, lastly, the perfection of the modern system of arms.

HOW CAPTAIN BOGARDUS LOADS.—In his match against time at Gilmore's Garden, Captain Bogardus will change every fifty shots from his ten to his twelve-bore. In the twelve, 3½ drs. of Dittmar's powder are used; in the ten, 4 drs. The charge of shot is 1½ oz. No. 8 for the ten, and 1½ oz. for the 12. In the field rather more powder would be used.

#### A CHALLENGE TO GLASS-BALL SHOOTERS.

SAN FRANCISCO, Cal., Dec. 12, 1877.

I will wager from \$250 to \$500 that I can beat any man in the world shooting the following eight matches, or any one of them: First, I can break more glass balls thrown from a Bogardus trap, 25 yards rise, than any man in the world; 2d, I can break 1,000 glass balls quicker with a shot-gun than any man living; 3d, I can break more glass balls shooting from a horse's back, the horse to be on a run, 21 yards from the balls, than any man in the world can break, 30 yards, and stand on the ground; 4th, I can break more glass balls with a rifle, the balls to be thrown into the air, than any man in the world can break with a shot-gun and shoot 30 yards, using a Bogardus trap; 5th, I can break 100 glass balls quicker with a Winchester rifle than any man in the world can break them with a shot-gun; 6th, I can break two glass balls thrown in the air at the same time, making a double shot and loading the gun once while the balls are in the air, using a Winchester rifle; 7th, I can make more fancy shots with a rifle than any man in the world; 8th, I will wager \$1,000 that I can kill more buffalo in one run, shooting from a horse's back, than any man in the world, and if buffalo are not to be found, will shoot elk, and go on the prairie at any time.

DR. W. F. CARVER, San Francisco, Cal.

[From what we have heard of Dr. Carver, we are led to suppose that he is a very wonderful shot.—Ed.]

TO CLEAN METAL SHELLS.—It is an awful nuisance to make a shell clean inside, and though simple when you look at it, is much harder to do than you think for. Now there is a handy little tool of which Mr. J. T. Ronan, of 778 Shawmut avenue, Boston, is the maker, which works on shells like a charm. The Ronan shell cleaner can be used as a breach wiper. Why sportsmen should have verdigris now in their old shells we cannot see. In ten minutes fifty shells can be made as good as new by using the Ronan shell cleaner.

CARD.

PHILADELPHIA, Dec. 29, 1877.

EDITOR FOREST AND STREAM:

In your report of the late match between Mr. Jeffrey and General Grubb, it is stated that the gun used by the latter-named gentleman was of "Western make, marked Krieger, of Philadelphia," leading your readers to suppose I was not the manufacturer. In justice to me, I would have you correct the error. The gun General Grubb shot I made for him at my establishment, corner Second and Walnut street, Philadelphia, especially for his pigeon shooting, and the same gun was used by him at his last match at Baltimore in an unfinished state, winning there also. The gun weighed nine pounds seven ounces, and was loaded with five drs. of Hazard's No. 4 powder and an ounce and a quarter of English chilled shot.

JNO. KRIDER.

THE DOUGALL BRECH LOADERS.—Mr. Henry C. Squires, of No. 1 Cortlandt street, calls attention to the breech loaders, of which J. D. Dougall, of London, is the maker, as the original introducer of the choke-bore into England. Mr. Dougall, through Mr. Squires, presents the following facts:

On May 18th, at the Gun Club, all the Dougall guns in the choke-bore match killed all their birds at 35 yards rise. On the same day Capt. A. L. Patton killed nine out of ten at 40 yards rise. In the choke-bore match, two of the four prizes were taken by Dougall guns. On June 7th, Capt. F. Leighton, at Hurlingham, won the champion sweepstakes at 30 yards—cup and £140. The Field newspaper says: "The winner, it may be remarked, made some wonderful good kills with his second barrel." On June 11th, the prize, 10,000 francs, given by Mr. Gordon Bennett, at Paris, was won by Capt. Shelley with a Dougall "express" gun, killing ten running, against 87 shooters. On June 16th, at the Gun Club, Capt. A. L. Patton won the Ascot cup and £55, also with Dougall "express" gun. The last week of the shooting at the Gun Club, London, all the prizes were won by Dougall guns on the express boring system. During 1877 many other events, as reported in the leading English papers, were won by the Dougall guns.

In the United States this particular make of gun is too well known to require an extended comment. Three qualities of guns are made, called the Highest, First Special and Second Special. The Dougall gun has various mechanisms as to fastening, known as the patent lock fast lever, the side snap self-closing, and top snap self-closing, and the under snap self-closing.

CHARGES FOR GUNS.

EDITOR FOREST AND STREAM:

Within the past two years I have seen many articles in your paper concerning the merits of the various brands of powder; and, with your permission, will give my experience for the benefit of my brother sportsmen. I have tried Curless & Harvey's, Lafin & Rand's, Dupont's, Dittmar's and Hazard's powder pretty thoroughly, and like Hazard's the best. For upland shooting I use Hazard's Electric No. 5, and for ducks the Ducking No. 4. And it may not be amiss to add that in a 12 gauge Clark & Sneider gun, weighing 7½ pounds, I use for quail, woodcock and snipe 2½ drs. powder and 1 oz. No. 9 shot. For a gun weighing a pounds I would recommend 3 drs. powder and 1½ oz. No. 9 shot.

In duck shooting I use a Tolley 10 gauge modified choke-bore, weight 8½ pounds, and my usual charge is 4 drs. powder and 1½ oz. No. 4, or 1½ oz. No. 5 or No. 6 shot. For general duck shooting, from the teal to the mallard, I doubt if a better charge can be used, in a gun of 5½ to 9 pounds, than 4 drs. powder and 1½ oz. No. 5 shot.

What I have stated above is the result of experience and I give it in the hope that it may benefit some of the younger sportsmen who have not the necessary time to devote to experimenting. TAR HEEL.

Wilmington, N. C., Dec. 1, 1877.

EXPERIMENTS WITH SHOT-GUNS.

LACON, Marshall Co., Ill., Dec. 10, 1877.

EDITOR FOREST AND STREAM:

A gentleman writing to this paper some weeks ago, remarks in substance: "Many a good gun has been discarded and disposed of for a trifle of its value, and replaced by a new one, simply because its owner did not know how to load it." This, according to my experience, is undoubtedly a fact. Shot-guns are queer things. Scarcely any two of them, no odds how nearly they may be alike, will shoot the same, with the same loads, and scarcely ever do we find the two barrels of a double gun that will make the same pattern when loaded alike. One gun will shoot No. 10, No. 9, or No. 8 beautifully, making very regular, even gun patterns with varied loads, but always doing best with certain load. Another gun will not make good, regular, nor even patterns with any of these sizes of shot, but only produce choice patterns with No. 7 and No. 6 shot. I have experimented enough on these points to become convinced that no one, no odds how great his experience is, can give the best load for any particular shot-gun without trial. He may approximately do so, but only very careful targeting will get at the exact facts. The experience of some of our most careful sportsmen would be of value to the inexperienced, and I hope we shall hear from them on this subject.

I now give you some of my experiments. Four months ago, I became the possessor of a 22 in., 12 gauge, modified choke, 8½ lbs., breech-loading shot-gun, ordered expressly by me to have the left-hand barrel make the closer pattern, but, unfortunately for me (it was built for a friend), the reverse proved to be the fact. This gun turned out to be an arm of remarkable execution when properly loaded, but it has some curious peculiarities. After targeting it at least 2500 times I find its most killing loads to be, for small game, four drs. moderately coarse powder and 1½ oz. No. 10, 9 or 8 shot, with two wads on powder (Eley's black edge) and one on shot. For large game, ducks up to turkeys and geese, five drs. same kind of powder (dead shot) is the best I have used, American Powder Co's., with one oz. of No. 6 or 7 shot. This gun, loaded in the last manner described with one oz. of No. 7 shot, is very deadly to game up to eighty yards and even further. But what to me is very curious is that there is very little difference in its pattern with the oz. of No. 7 shot at forty yards with from two and a half and five drs. of powder. Of course a considerable difference exists as to penetration. An ounce and a quarter, or even an ounce and an eighth of shot spots the pattern. I killed with this gun this fall one morning six wild turkeys at distances ranging from fifty to ninety-five yards, knocking them all dead but one I used three and a half drs. powder and an ounce of No. 7 shot. I killed a ruffed grouse at seventy-three yards, carefully measured, hitting him with three shot with two and three-quarter drs. of powder and an oz. of No. 7 shot. I killed a turkey at ninety-five yards with three shot and he died right there. I killed the six turkeys at five shots. The wounded one was damaged when I shot at another and was not found for several days. He flew about 100 yards and died where he alighted. This gun

does not make a good pattern with shot larger than sixes, but a very deadly charge for ducks or geese I find to be a third of an ounce of threes, twos and double O's in about equal proportions mixed with two-thirds of an ounce of No. 7. It makes a wonderfully good pattern with 3½ to 4 drs. powder and 1½ oz. heavy shot, but this I will bring out more plainly by giving experiments with a larger and heavier gun, if acceptable. BYRNE.

THE RIFLE AT RUNNING DEER.

MACON, Mo., Dec. 23, 1877.

EDITOR FOREST AND STREAM:

I see in your valuable paper, of Dec. 20, that "Deer Hunter" wants to hear from practical deer hunters on the above subject. As I was raised on the border, and am the son of an old deer slayer, I have concluded to give my experience. Twenty-five or thirty years ago we used nothing but the rifle at any kind of game. Then all kinds of game from the quail to the deer were plentiful. As a matter of course some of us became dead shot. We frequently killed ducks, geese and wild turkeys on the wing with our rifles, and in shooting deer on the run we all agreed that at the instant the deer struck the ground was the time to pull the trigger. I have heard this subject discussed many times around the old-fashioned fire-place, and never heard a dissenting voice from the above theory. I am satisfied that it is the only correct way. Our best shots always thought it an easy matter to kill a deer while it was crossing a wagon road in the brush, and a brother of the writer has killed two when he only saw them take one jump each before shooting.

Very truly,

T. A. SMEDLEY.

PRICE OF FURS.—The following list of prices of furs will certainly be of interest. We may remark that the troubles in Europe, the failures in Leipzig, and the mild winter have depressed the price of furs in the American markets. These quotations are for all kinds of prime skins, according to size and color. Good size and good color, of course, command outside figures:

Table listing prices for various furs such as Bear, Beaver, Badger, Cat, Fox, Muskrat, Raccoon, Skunk, Wolf, etc., with prices in dollars and cents.

There is a decided objection to receiving skunks in New York until after the first of February. From time to time we will repeat this list with the changes of the season.

PIGEON MATCHES.

MASSACHUSETTS.—Cambridge, Dec. 25.—A club for glass ball shooting is to be organized here. A match to-day—25 balls, three traps set 25 feet apart and 18 yards rise, the shooter not knowing from which trap the ball would be sprung—was shot for a gold and a silver cup, with a tin cup for the poorest score. The result was:

Table showing results of a glass ball shooting match with names like G. O. Rollins, A. H. Hubbard, Mr. Danielson, etc., and their scores.

F. B. P.

LONG ISLAND SHOOTING CLUB.—The members of the club assembled Dec. 28 for the regular monthly shoot for the champion silver cup. There were fifteen competitors, and each shot at seven birds, 25 yards rise (all except the holder of the cup from last month, Mr. G. F. Gildersleeve, who was handicapped at 27 yards), 80 yards boundary, 14 ounces of shot, H and T traps, the club rules to govern. Score:

Table showing results of a Long Island Shooting Club match with names like G. Hance, Broadway, Brown, Lumphreay, Gildersleeve, etc., and their scores.

Same Day—Sweepstakes, \$3 each, twelve entries, making \$24; divided into three parts—\$12 to the first, \$3 to the sec-

ond and \$4 to the third; at three birds each; the other conditions same as above:

Table showing results of a sweepstakes match with names like Thomas, Black, Broadway, Gildersleeve, etc., and their scores.

† Divided the money.

Same Day—Sweepstakes, \$2 each; ten contestants, total \$20; divided—\$10 to first, \$6 to second and \$4 to the third; at three birds, and under the same rule as above:

Table showing results of a \$20 sweepstakes match with names like Robinson, Hughes, Houghton, etc., and their scores.

† Divided the money. Time of shooting, 3h. 15m.

BOOTH VS. GUTIERREZ.—A match was shot between E. Booth and J. Gutierrez, on the grounds of the Lexington Gun Club, Brooklyn, Dec. 25, with the following score:

Table showing results of a match between Booth and Gutierrez with names like Booth, Gutierrez, etc., and their scores.

Sweepstakes match same day:

Table showing results of a sweepstakes match with names like Booth, Gutierrez, etc., and their scores.

GOSHEN SHOOTING CLUB.—Friday, Dec. 21.—10 birds each, 21 yards rise. Following was the score:

Table showing results of a Goshen Shooting Club match with names like H. R. Cable, C. Hopkins, etc., and their scores.

AN AFTER CHRISTMAS DINNER SHOOT.—Just what work may be expected from a man with an overloaded stomach is hard to say, but the good things of the table did not seem to have a bad effect upon the six sportsmen who gathered at the house of Judge Thomas Brown, of Wayne, N. J. Some of the shooters claim never to have shot at the trap before. The score was:

Table showing results of an After Christmas Dinner Shoot with names like Judge Thomas Jones, Col. B. H. Brown, etc., and their scores.

WACO GUN CLUB.—The Waco Gun Club, of Waco, Texas, shot a match for the Tatham cane, Dec. 23. Thirty shots each in two scores. Score as follows:

Table showing results of a Waco Gun Club match with names like E. McCall, J. Thompson, etc., and their scores.

Table showing results of a Waco Gun Club match with names like E. McCall, J. Thompson, etc., and their scores.

Ties on 18. C. C. McCulloch... 1 0 1 0 1-3 W. T. Lane... 1 1 1 1 1-5

Table showing results of a Waco Gun Club match with names like E. McCall, J. Thompson, etc., and their scores.

MIOHGAN.—East Saginaw, Dec. 25, 1877.—Contest for a solid silver cigar case, presented by Mr. O. C. Becker, gun-dealer of this city; 20 balls each, Bogardus' traps, 18 yards. Score:

Table showing results of a Michigan match with names like Fleming, Beckman, etc., and their scores.

AUDUBON CLUB.—The Christmas shoot of this club at Dexter Park, Chicago, proved unusually interesting. The Diamond Badge was won for the second time in succession by S. H. Turill. If he wins it once more it becomes his personal property. The pigeons were very wild. Following are the scores:

Club match; four prizes; class shooting; 10 birds, 25 yards rise, plunge traps:

Table showing results of an Audubon Club match with names like Charles Smith, Greene Kerns, etc., and their scores.

Ties on eight. Kerns... 2 Neilhart... 3

Ties on seven. Felton... 2 Stagg... 3

Ties on six. Wilson... 3 Morris... 4

Sweepstakes shoot; 5 birds; class shooting:

Table showing results of a sweepstakes shoot with names like W. T. Johnson, Abe Kleinman, etc., and their scores.

Ties on four. Kleinman... 2 Kerns... 3

Stagg... 3 Turill... 2

Diamond Badge score; English rules, 30 yards rise, 80 yards boundary, 5 ground traps:

G Smith	1	1	1	1	0	0	0	1	1	0	6
C Felton	0	1	1	1	1	1	1	1	1	1	9
W T Johnson	0	1	1	1	1	1	1	1	1	1	9
C Kerns	1	1	1	1	1	1	1	1	1	1	9
J I Gillespie	1	1	1	1	1	1	1	1	1	1	9
C Wilson	1	1	1	1	1	1	1	1	1	1	9
S B Turill	1	1	1	1	1	1	1	1	1	1	9
F Taylor	1	1	1	1	1	1	1	1	1	1	9
T Stage	1	1	1	1	1	1	1	1	1	1	9
C Smith	1	1	1	1	1	1	1	1	1	1	9
Dr N Rowe	0	0	0	0	0	0	0	0	0	0	3
De Price	1	0	1	1	1	1	1	1	1	1	9
G Morris	1	0	1	1	0	1	1	1	1	1	9

\* Killed with second barrel.

**THE BOWERY CAT SHOW.**—The enterprising managers of the American Museum, "the greatest 15 cent show on earth," have added to the attractions of the fat people, "wax fingers," "Inquisition horrors, and other objects of curiosity and wonderment, a vast and various assemblage of cats. There are cats with two legs, and cats with six legs; lap-eared cats, and one-eared cats; cats double headed, and cats ring-tailed; black tom cats and albino tabby cats; cats yellow and cats green; big cats and little cats, fat cats and lean cats, and whole families of cats of every degree of beauty and monstrosity.

**WHO OWNS THE TURKEYS?**—Some four years ago Mr. Jacob Peutz presented to the Blooming Grove Park Association his preserves, but ungraciously and incontinently vacated the ranch. They have been seen at times in the surrounding country and have just been heard from, some sixty strong, in the mountains fifteen miles from the park, toward Seranton. And through FOREST AND STREAM the braves of the tribe wish to say to those gentlemen who claim their drumsticks, that if any member of the association wants his turkey let him come and get it. As for them, "These mountains shall fly from their firm base," etc.

**CALENDARS FOR 1878.**—Lang & Robinson, flour dealers, 2 and 3 South street, New York, have issued beautiful illuminated calendars for the New Year. We have also received an artistic calendar from M. B. Brown, general printer, 201 and 203 William street.

THE COUNTRY,

A weekly journal, devoted to the Kennel, Shooting, Fishing, Fox Hunting, Archery and other outdoor sports. Has also departments treating of Natural History, The Garden and Poultry, Pigeons and Pets. Edited by Wm. M. Fleston, 1st associate editor of FOREST AND STREAM. Subscription price, \$3 per year. Specimen copies free. Address, "THE COUNTRY PUBLISHING ASS'N," 33 Murray street, New York. —[*Ado.*]

Answers to Correspondents.

**No Notice Taken of Anonymous Communications.**

- F.** A number of anonymous correspondents will understand why their queries are not answered, when they read the lines at the head of this column.
- B.** By an inadvertence many answers to correspondents were left over last week.
- J. F. S., Philadelphia.**—P. Mullin's address is 97 Fulton st., N. Y.
- H. W. H., Lawville.**—Address G. B. Eaton, Jersey City Heights, N. J.
- O. K., Boston.**—The maker you mention is in good repute and he manufactures an excellent arrn.
- E. J. P., Painesville, Ohio.**—Address Mr. S. B. Dodge, 351 Broadway, New York, and at Crystal River, Florida.
- H. W. M., New Rochelle.**—We send to your correspondent the form for organization of such a game protection club as you desire.
- C. H. M., Rockville, Conn.**—Where can I procure Black's patent cartridge vest? Address Schnyler, Hartley & Graham, New York.
- BRD SHOT.**—What would two pure bred greyhounds, dog and bitch, cost? Ans. The right kind would be worth something like \$100, and hard to get.
- Boston.**—Is there anything I can use besides arca nut for tape worm in dogs? Ans. Kooso and male fern are supposed to be effectual remedies.
- B., Greenville, Pa.**—Where can I procure the skin of an elk? Ans. Address Mr. Baldwin, fur dealer, Third st., near Merchant's Hotel, St. Paul's, Minnesota.
- E. D. G., Elmira.**—1. Where can I procure a harrier pup? 2. Would it be the best kind of a dog for rabbits? Ans. 1. Advertiso in F. and S. 2. An excellent dog.
- JACK, Boston.**—Have a nickel collar which makes my white dog's neck dirty; what is the reason? Ans. It is fully coated with nickel it ought not to tarnish. Cover the metal collar with leather.
- J. G. R., Boonton.**—Where can I procure a few hundred live quail during the next two months? Ans. Very hard to get. Apply to Robbins, Fulton Market, or to Reichs Bros., Chatham St., N. Y.
- Doctor, Yonkers.**—The queer skate-shaped fish referred to some weeks since as having been captured and exhibited in Yonkers at the fish market of William Jones was the *Lophus americanus*.
- LEROY, Cin.**—My setter pup six months old has cough, eyes inflamed, with discharge from them. Have given sulphur. Ans. The puppy has distemper. Follow directions in "Sportsman's Gazetteer."
- N. S. M., Rutland.**—Is the doubtful shot on the target we send you on the black or bull's eye? Ans. We decide that the doubtful shot is not an. A shot, to be on, must break the paper; splits do not count.

- J. H. M., New York.**—What quantity of powder and number of shot will I require to load a breech-loading shot-gun 12 gauge and 7 and 10 pounds weight for snipe, quail, or woodcock. Ans. 3½ drs. powder, 1 to 1½ oz. shot No. 10.
- C. F. S., Brooklyn.**—As far as we know, it is honest, though, at all times, such things have, somehow or other, a taint about them. There are responsible people outside of it, but then, the true inwardness always craves examination.
- A. B., Oswego.**—A bet 8 that in England a premium is paid for killing sparrows, and that the person so killing them can have the premium applied to paying his taxes. Ans. A has lost, there are no such foolish things done in England.
- J. H. W., Fort Wayne.**—Can you give me the pedigree of "Major," who was owned by a Mr. King about ten years ago? Ans. Have made inquiries from leading sportsmen in the State, but they don't know. Address L. H. Smith, Strathroy, Canada, who has our book of pedigrees.
- A. O. P., Mt. Pleasant.**—The Tolley Mr. Squires has to sell is a 10 bore 32 inch, Damascus barrels, weight 9½ pounds. Extra barrels 10 bore 30 inch, laminated steel, weighs 9 pounds. Side lever, beautifully engraved, and is of Tolley's best make, and never was imported under \$300.
- C. G. J., Howell.**—1. Do wire cartridges injure the interior of fine guns? 2. Are they made of all sizes, and ought they to be purchased in reference to the size of the bore? Ans. 1. They do not, but should not be used for choke-bore. 2. Of all sizes and make for various bores.
- PEESKILL.**—What is the best work published in this country on insects? Is Currier's classification much used? Ans. Send to Estes & Lauriat, Boston, Mass., for the works of A. S. Packard, "Guide to the study of Insects," "American Entomology" and "Relation of Insects to Man."
- E. A. M., Stewartville.**—Would not advise the purchase of the revolver, though they are fairly reliable at the distance you mention; but for general sporting purposes it answers quite well. There are inconveniences, not of power but of mechanism, which render revolving arms (not pistols) objectionable to-day. Magazine loaders have taken their place.
- H. D. P., N. Y.**—1. Where can I get pads? 2. Where can I find table of penetration? Ans. We certainly replied to you some weeks ago. Pads can be had of Messrs. Fowler & Fulton, 300 Broadway, or of Mr. Squires, No. 1 Cortlandt st., N. Y. 2. Mr. Squires, if he has the "Field Gun Trials of 1875," and could spare you a book, you could find the necessary information.
- G. A. E., N. Brookfield.**—Do you think the flesh of the ruffed grouse could be poisoned by eating laurel buds? Was there ever a case of the kind? Ans. In hard winters with heavy snowfalls, when little other food can be obtained, the ruffed grouse feed principally on laurel buds in the swamps where they seek shelter; and persons eating of their flesh at such times are very liable to be made sick.
- GROUSE, Meadville.**—Please prescribe for my puppy four weeks old. Think he has the mange caused by being in a litter of thirteen puppies and the bed not being changed for four weeks. He is broken out on the legs and back and matter crusted on his hide and hair. How shall I diet him? Ans. Keep in a clean, dry bed and rub in a little kerosene where there is any eruption. Feed him boiled oat meal or mush.
- G. N., Fisherville.**—Have a rifle, 40 cal., 50 grs., 30 in. barrel. It shoots admirably at 100 yds., but over that distance the balls will not get on the target. The rifle is highly finished and excellent in every way. Pray inform how I may remedy the trouble. Ans. Perhaps the twist is not sufficient to impart a permanent rotary motion over 100 yards. Suppose you try a shorter ball, or if not shorter ball more powder.
- E. B. G., Montreal.**—How can I remove rust from the outside of a gun barrel? Ans. Lubricate the part well with an animal or fish oil. Let the oil remain on for several days. Then take a fine scratch brush and work carefully. Of course rust can always be removed, but sometimes at the expense of making a blemish on a barrel, but it is always better to use the heroic method and get rid of it, because if left rust eats its way to the metal.
- C. M., Dauphin.**—How can I dry fern leaves so as to preserve their color? Ans. Take dry sand, and place the leaves on the sand, then sift a layer of an inch or so of sand on the leaves—of course arranging the leaves flat and neatly. By doing this carefully, not only leaves but flowers can be preserved. Let the whole remain until the leaves are dry. Of course, keep the sand in a moderately warm room, such as one's living room.
- IRISH SETTER.**—1. Describe the color of a red Irish setter? Are they ever white? 2. Where can I get California quail? Ans. 1. Blood red, a deep chestnut, mahogany color—not golden, nor fawn, but a frank, deep blood-red is the color of a red Irish setter of high breed. Irish judges consider a black tipping of the coat a grave fault in color. Yet Stonehenge says, "There are good Irish setters nearly white, red and white." There were famous Irish setters, white and red, as far back as 1392; still, in our judgment, a red Irish setter ought to be bred, and nothing else. 2. Address Reichs Bros., Chatham st., N. Y.
- E. P. H., Stroudsburg.**—Please give description of a full-blooded black and tan setter, and whether they have short hair? Ans. The black of a Gordon should be raven black; the tan, a rich red. There should be no yellow or tawny, nor fawn. The cheeks, lips, throat, feet, back of forelegs to the elbow, front of hind legs to hips, belly inside of thighs and underside of ears should be red, with a large spot over the eyes. Hair of moderate length, and perhaps, generally not as fine and silky in texture as in high bred English setters. Hair often with a handsome wavyness, but not curling.
- R. G. L., Franklin.**—1. Please give me address of a reliable party that is considered a good dog breaker or trainer? One living nearest this place desired. 2. Will choke-bores shoot Kay concentrators and wire cartridges with as good effect as cylinder barrels? 3. Are wire cartridges injurious to choke-bores? Ans. 1. Do not know of any. 2. There would be no necessity for them. Choke-bores are supposed to do away with peculiarities of ammunition. 3. Should think it would be injurious.
- W. H. D., Baltimore.**—What is about the average weight of bluefish caught on the Atlantic coast? What was the weight of the largest blue fish known to have been caught in New York Bay, or off Sandy Hook? Ans. There are several runs of bluefish from the beginning to the end of the season. In May the average weight is seven pounds; in June three pounds; in July a quarter of a pound, growing to half a pound in August. In October they run from twelve to eighteen pounds, the latter weight being the heaviest that we have personal knowledge of.
- E. M., St. Paul.**—1. I have a 16-bore breech-loader; am at present using common straw-colored shells; what should be the proper amount of powder and shot for common bird and quail shooting? The gun is light—total weight of barrel and stock is 11 lbs. 2. Can you recommend

- me a good dealer in shells, etc., who has No. 16 shells for sale? Ans. 1. From 2½ to 3 drs. powder and 1 oz. 9 or 10 shot, perhaps for your section of country. 2. Schnyler, Hartley & Graham, or Squires, or Fowler & Fulton, all of New York.
- J. A. W., Richmond.**—Have a fine pointer pupped in May of last year. He is badly off with distemper. No cough, but loss of spirits and appetite. Very poor, thin and timid. Vomits, bowels loose; hair lustreless and skin tightly drawn. Ans. Difficult to properly prescribe without seeing the dog, but two grains of quinine four times a day, tincture of opium five drops three times a day as long as the bowels are loose, good strong broth of meat and a warm, dry bed will, at this stage of the disease, probably pull him through.
- T. O. M., Harrisburg.**—On Dec. 20 my setter dog, apparently in good health, commenced to gag and throw up a silny, stringy matter. Since then he has eaten nothing. His stools are the same color and like what he threw up. He drinks water, but will eat nothing. Has not fallen away any, so far. Gets into dark corners and is very reluctant to come when called. What is the matter, and what shall I do? Ans. Probably has an attack of gastritis. Give only milk and water for a time.
- G. S. W.**—1. What is the price of Greener's book on choke-bore? 2. Is the — breech-loader considered a good gun? 3. Is Hazard's F. G. sea shooting a good powder to use for a B. L. 7? 4. Is a coarser powder better for shooting? Ans. 1. \$3.50. 2. Very fair. 3. None better. 4. The tendency is to use coarser powder. A slower burning powder strains the gun less, gives a diminished recoil, and produces, at less cost, excellent effect. The powder you use has the advantage of a good glaze, which prevents its becoming moistened.
- C. W., Brooklyn.**—1. Does the \$1 for subscription to the F. & S. include postage? 2. How could a slight trembling of the barrels be remedied, and what would it cost? 3. What would be the cost of altering a forward-side lever to back-side lever, & c., back of the right-hand hammer? Would this prevent the shaking? Ans. 1. Four dollars includes everything. 2. Exceedingly hard to tell, unless we saw the gun. 3. Think the remedy would be found in the change, but could not tell the cost. Would be glad if C. W. showed us the gun in person, in order to advise further.
- PHILADELPHIA.**—1. What game is there in the upper part of West Virginia? 2. What calibre of rifle is most suitable for shooting squirrel, wild turkey, etc., and what make should I get? 3. What kind of dog should I have that has always to keep with the shooter, and whose only duty would be to bring the game that has been killed on land or water, and what would such a dog already trained be worth? Ans. 1. Deer, bear, wild turkey, quail, ruffed grouse, squirrels, orter and mink and fox (see Hallcock's "Sportsman's Gazetteer"). 2. \$5. 3. A retriever. Would cost from \$25 to \$50.
- J. G. A., Itasca.**—1. Please inform me if a wad and disc of grease over the powder is better for general hunting and target shooting with a patched ball? 2. What is the highest score (5 and 10 shots) ever made at 200 yds.? 3. Is the putting a dozen consecutive shots in a space of ¼ in. diameter with a .22 cal. rifle 100 ft., spoken of in your last number authentic? Ans. 1. It would an advantage, almost a necessity, if you did not wipe out. 2. 24 points in 5 shots, 47 in 10; these are absolute scores, winning matches, and recorded, not—hearsays. 3. We have every reason to believe it was authentic, and wonderful shooting was it
- C. H. C., New York.**—1. Have an imported setter and wanted to breed from him. Do you know of any one having a good bitch? 2. What is the best work on rearing, etc.? 3. Is there a probability of glass ball practice being established in the city? 4. Have —, Dublin, a good reputation as gunmakers? 5. My dog's hair comes out quite badly and looks rather rough, from his shoulders to his tail. Skin appears all right, no inflammation or eruption. What shall I do for him? Ans. 1. Advertise and we are quite certain it could be arranged. 2. Stonehenge, Idstone, "Sportsman's Gazetteer." 3. There is. We shall announce it shortly. 4. Very good reputation. 5. Give a little sulphur two or three times a week and afterward a dose of castor oil.
- J. M., West Meriden, Conn.**—1. Will you be good enough to inform me where I can purchase the bamboo that fly-rod makers use in making their rods? 2. Can partridge, called pheasant in Pennsylvania, be shot during the first month of the year? 3. Is there any good wild turkey hunting in the neighborhood of Wilkesbarre, Carbonado, or Pittston? 4. Can they be shot during January without trespassing on the law? 5. Any fishing to be had in the places spoken of above, for bass in January? Ans. 1. Fersherne & Co., Canal St., N. Y., import bamboo and lancewood. 2. The close season for pheasants is from Jan. 1 to Oct. 1. 3. You will find turkeys in that region, although not in the immediate vicinity of the towns named. 4. They cannot. The close season is from Jan. 1 to Oct. 1. 5. You will find speckled trout. The close season for trout is from Aug. 15 to April 1. Black bass fishing permitted until March 1; close season from March 1 to July 1.
- J. O. W., Tounah.**—What is the difference between Remington Creedmore and Remington Sporting Rifle, No. 1? What is a Creedmore rifle? Ans. A Creedmore Remington is a special arm adapted to long range shooting. Our manufacturers, such as Remington and Sharps, both make what they designate as Creedmore rifles. A Remington sporting rifle, No. 1, could be used for match shooting at short ranges, but would not be useful at the extreme ranges. Creedmore rifles have delicate sighting apparatus, water levels, verniers, and for the finest and most accurate shooting, must be cleaned after every fire. A Creedmore rifle is good of course for all distances. With certain precautions in its use, a Creedmore is to a sporting rifle something like a chronometer to a first-class watch. You could knock about a sporting rifle without injuring it, but not a Creedmore. The Creedmore rifle is an arm of absolute precision for all distances.
- B. A. M., Austin, Minn.**—In what States are quail allowed to be trapped? 2. Is there anything to prevent my being a member of a sportsman's club in their regulations, being only 16 yrs. old? 3. Can you give me some information as to taking out powder burns from the inside of my gun, also rust? 4. Is \$25 a reasonable price for a retriever? Ans. 1. Trapping quail is prohibited in nearly all the States at all seasons of the year. Some States, as Illinois and Connecticut, allow trapping on one's own property. 2. We should judge there would be nothing. Its own membership is regulated by the constitution of each club. 3. If powder burns, send to a gunsmith and have it emiered on Fur for use Riggs's Belmontite oil. Also, a thin coating of shellac, dissolved in alcohol, is excellent. Common tallow is very serviceable. Blue ointment is the best preventive, and easily applied by mixing it in sperm oil and passing it through the barrels a few times with a rag. 4. Yes, if the dog is a good one.
- NOTICE TO SPORTSMEN.**—Having received so many communications asking for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$150. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting. F. O. Box 1,244. —[*Ado.*] **ANBY & IMBRIE, 55 Maiden Lane.**



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INDOUGLICATION IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

No. 111 (old No. 103) FULTON STREET, NEW YORK.

[POST OFFICE BOX 2832.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 60 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\*\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, JANUARY 3, 1878.

### To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts. Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

**GRAZING RANGE WANTED IN TEXAS.**—A gentleman with \$5,000 to \$10,000 capital wishes to buy a rancho in Colorado or Texas, for the purpose of grazing sheep or cattle. Will buy the whole or join another party. Do our Colorado or Texas friends know of an opportunity? Address the editor of this paper.—[*Ado.*]

**WHETHER THE FOREST AND STREAM AND ROD AND GUN FETTERES.**—Fetches! It is not an elegant expression, but it means that advertising in this paper fetches business. And why? Because our circulation is constantly increasing, and for the reason that we reach all the sportsmen in the country. An advertiser writes us as follows: "I have been advertising but a short time, but long enough to appreciate the FOREST AND STREAM AND ROD AND GUN as an advertising medium, having received letters from all parts of the country, and even from British Columbia, with any number of letters from officers in the army."

**FLOWERS ALL AROUND, 1877 AND 1878.**—The old year is generally represented as a decrepit fellow—a snow man—all ice-bound and muffled up, while the new year is a gay spring-ald decorated with flowers. This year we think there has been a mistake made about it. When dandelions sprout in December, 1877, we don't see why both the old and the young year should not be garlanded with flowers, and each have a chaplet of its own.

**BLOOMING GROVE PARK RECEPTION AND BALL.**—This much-talked-of affair will take place at the Hoffman House on Tuesday next the 8th instant. It will be a characteristic reunion of sportsmen and their families. Tickets, admitting gentlemen and lady to the reception, ball and supper, can be obtained of Charles Hallock, Esq., office of FOREST AND STREAM, or of any of the other members of the Reception Committee following:

Dudley Field,  
Dr. Geo. H. Groney,  
Col. Sanders D. Bruce,  
Charles Hallock,  
Joseph Dore,  
E. B. Wilbur,  
O. H. Read,  
P. M. Wilson,  
John Avery,  
Dr. E. Bradley,  
Hamilton Busby,  
E. A. Buck,  
A. H. Wellington,  
T. W. B. Hughes,  
Simon Stern,  
M. B. Brown,  
Geo. S. Greene, Jr.,

### THE PHOTOSCOPE.

THERE was a time when the narrator of stories relating to the sports of the field was listened to with a certain amount of attention. "When I was in Bengal"—so would commence the *raconteur*, "I went up to the country with Colonel Plunger, of her Majesty's Quety-oneth, and we had a tiger hunt." Here would follow some stirring incidents, and as if to bring authenticity to the recital, the conclusion might have been, "And that skin there, fourteen feet three inches long, from head to tail, you have under your feet, I shot. The biggest brute of the season! In fact, the animal was the terror of Humberwallah." Of course the inspection of a noble skin, with a bullet hole or two in it, settled the matter. Suspicions of a fine hide bought at Gunther's was out of the question. Guileless as we were, it was a pleasure to be imposed upon, when a remarkable yarn, bristling with impossibilities, was supplemented with trophies, photographs and sketches.

But this kind of thing, even with the visible proofs, will no longer be alone of avail in launching a Munchausen. The story of the future must be buttressed with something more than material things.

Next year the man who attempts to indulge in a tough story (outside, of course, of the newspapers) will have to do it something in this way: "It was near the Atlas Mountains, and I was going for lions. Of course I use the plural, though I assure you had I been able to bag one lion I should have been quite contented. It was a quiet moonlight night, and my Arab said to me (here a curious sound is heard in some impossible language), which means, 'Oh, my Lord and Master, here comes the Father of lions; keep your eye skinned!' I got to understand the lingo. I cocked my rifle. When near me, quite near me, I heard (the room here absolutely reverberates with a deep booming) the roar of a lion. Frightened! Of course I was. You see we had tied a kid to a stake, and the poor thing commenced bleating piteously (sounds of ba-a and m-a-a are heard, of the most doleful kind). At last the lion's flank was toward me, and drawing a careful bead, I let him have it (the glasses in the room vibrate with the explosion of a gun). He had it right under the shoulder. That one shot sufficed, for he fell dead in his tracks. My Arab embraced me. That night in the village there was feasting and dancing (a twanging of some string instruments and the monotonous beat of a tambourine sounds not unpleasantly). Queer music, is it not? I lost my heart just about that time. Zobaide, the Scheik's daughter—you know. Such a lovely creature! All veiled and bundled up, but eyes that shone like stars! When she lisped out 'Ra-ka-hout, ra-ka-hout'—that's 'Dear Billy' (the fair sound of a woman's voice is heard), it was the sweetest music I ever listened to. Her father, a grim old fellow, all long beard and hollow-eyed, his girle a perfect armory and arsenal, got wind of it somehow, and said he, ('Gi-wuto-atwince-yedi-vil,' is heard). Of course I went. My Arab steed neighed for joy (a loud whinny is heard) and scouring the burning sand—a week afterward I was in Algiers."

Is is the Photoscope, the last electrical invention, which will do this kind of business. The sportsman will carry with him a photoscope, and once catching the sounds, he will be able to preserve them, and grind out the sounds again whenever the occasion presents itself. What delightful anticipations do not the photoscope permit. Our favorite horse has thrown us, and we have a broken leg. Seated in the sick-room, we can forget our pain, as the room rings again with the joyous yelping of the fox hunt. Pictures alone in the ornithologist's books will no longer suffice. Songs of nightingales we may listen to now, and the deep mysterious booming of the bell bird in tropical forests, just as Whittier has written it,

"A cry as of the pained heart of the wood,  
The long, despairing moan of solitude."

We are to have the honking of the brant in our back parlor, or the gentle peeping of Bob White in the smoking room.

What a revolution that photoscope is destined to play in theatrical business! The manager of the future will want now nothing more than puppets. Mr. Jefferson can be centupled, and may be heard in Bangor or Sacramento on the same nights. Maybe, in time, the photoscope will become so common that actual plays will be considered as things of the past, and only pantomime be the leading business.

Philosophizing, however, somewhat more sagely over the wonderful discovery of the photoscope, an instrument which actually records sounds, and can reproduce them over and over again, one is amazed to think how the possibility of the creation of such an instrument has been, before this, at least, imagined. Just as Swift wrote about the moons of Mars, two centuries almost before their discovery, so has an American story-teller, Mr. Perkins, in a weird tale called the *Manufactory*, curiously detailed the possibility of just such a machine as is now due to the marvellous inventive talent of Mr. Edison.

Returning, however, once more to where we started from. If the photoscope does nothing else than to repress impossible hunting stories, and if such are no longer to be credited unless supplied with vocal and audible proofs, this new instrument, the photoscope, will have effected a noble purpose.

**THE WOODRUFF SCIENTIFIC EXPEDITION AROUND THE WORLD.**—The purpose of the expedition is to visit points of general and special interest on a carefully considered route

around the globe, to study the arts, ethnology, archaeology, and present condition of the better known countries, and the geography, geology, fauna and flora, as well as the history and character of the people of those less known, and to make collections in various departments of science, paying special attention to the collection of such specimens of natural history as will add materially to the present collections in the National Museum, under the direction of the Smithsonian Institution. An invitation has already been accepted by the director of the Smithsonian Institution, and by the Commissioner of Agriculture to send, free of charge, a representative from their respective departments, for the purpose of making such special collections. It is also intended that those who wish to study navigation and the various collateral branches such as astronomy, meteorology, and the higher mathematics may have a practical opportunity offered by this project; and it is suggested that the studies of manufacturing, mining, and commercial interests attainable throughout the various parts of the world to be visited cannot fail to be of great importance, not only to the student, but consequently to the country at large. The expedition will be absent two years. In order that these promised arrangements should be fully carried out, and the departure be fixed—the date of May, 1878—it is necessary that a substantial vessel should be found, and Congress is to be asked to authorize the Secretary of the Treasury to grant for the purpose of the expedition an American register to a foreign built steamship. This experimental floating college, combining pleasures with solid practical instruction, in fact object teaching on a grand scale, is fully indorsed by such distinguished names as E. P. Whipple, Oliver P. Hubbard, Charles P. Daly, E. J. Nolan, all the Professors of the University of Pennsylvania, Joseph Henry, Secretary Smithsonian Institution; the President of the Cornell University, Professor Gray, of Harvard; the Secretary of State and Governor of Indiana, the President of the University of Michigan, the President of the Rochester University, and all the Professors, with the President, of Yale College. The Secretary of the Woodruff Scientific Expedition is Daniel Macauley, Esq., who may be addressed at the St. Nicholas Hotel, New York, as to the business of the expedition.

**COLUMBIA'S CREW TO GO ABOARD.**—Columbia having failed in her effort to secure a match with Harvard, has, with indomitable pluck, determined to enter the lists with far more formidable rivals, and proposes nothing less than entering the English races for amateur fours, open to the world, at Henly-on-Thames next June. There the New York oarsmen will meet crack crews from Oxford, Cambridge and Dublin, the London Rowing Club, and others. These rivals will demand good work from their foreign competitors, and Columbia's good record in the past justifies the belief that she will acquire herself with honor. Certain it is that the race will be watched with far more interest in America than would be excited by any inter-collegiate matches; and Columbia's crew will carry abroad with them the good wishes not only of her own college but of all who are interested in American rowing.

**MORE ORANGES.**—We are indeed in luck. Santa Claus has not forgotten us this year, that is certain! We have now received a box of splendid oranges from the grove of an old correspondent, George F. Willis, at Bayport, Florida, who has just now fully 50,000 in his packing house. He gives the pleasing intelligence that he was never so busy as at present, from which, and other evidences, we infer that orange culture in Florida is looking up. For ourselves, we believe that it will soon become one of the leading industrial interests of the State.

Mr. Willis adds the following interesting bit of information:

"We had a pleasant call (Dec. 21) from two gentlemen, Mr. Oscar Jasigi and Frederick L'Estrang Hart, who came in with their beautiful yacht, the 'Al Fresco.' They took dinner tea and breakfast, and enjoyed our oranges. We went up the Wekawacha on a hunt and fish with them, and had a jovial time. They sent kind regards, and wished to be remembered to you, and, after selecting a few boxes of our choicest oranges, bade us good bye as they started down the coast in their beautiful craft."

Mr. Jasigi is the Ottoman Consul General at Boston.

**VANITY FAIR.**—Not only we, but all our staff, are indebted to the Messrs. W. S. Kimball & Co. for numerous packages of their Vanity Fair. The office is redolent with the perfume of this fine tobacco. If we are somewhat of an authority in rifle matters, so is Sir Henry Halford, who, like us, is equally learned both in rifles and smoking. Sir Henry says: "Vanity Fair is the best tobacco I ever smoked," and so do we. Sir Henry smoked Vanity Fair in going West. We have used it in going North, South, East and West, and no matter as to latitude or longitude we always found it admirable. There is no use of our puffing Vanity Fair; thousands of smokers do that graceful thing every day.

**THE "KANSAS FARMER."**—This well-known journal, the leading agricultural paper of the West, we always deem among our leading exchanges. Established some fifteen years ago, the *Kansas Farmer* has, by its enterprise and good judgment, secured a large class of intelligent readers. As a medium of advertisement for seedsmen, live stock breeders, agricultural implement makers, for commission dealers and real estate agents—in fact for all business, we consider this paper as among the best. The *American Young Folks* is issued by the same publishers, and occupies a prominent position.

VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.—No. 9.

By THE EDITOR.

DECEMBER 27, 1877.

GENTLEMEN: The record of my summer rambles must have already become prolix, and should end with the year that is drawing to a close. Lack of materials with which to make letters is certainly no cause for winding up the series, for the great West is redundant of material. A prairie of pages lies spread out constantly before us there, from which to cull unceasing knowledge and experiences in nature, and I never weary in the study or acquisition thereof. But I fear that the facts, as I now present them at this late date, have become withered and vapid, like the flowers which I gathered in summer. The spangled vesture of June, which covers the prairies where I have roamed with a radiant and illimitable glory, as far reaching as the expanses of Paradise, bear vivid contrast to the sere landscape of autumn, where the solitary golden rod and coreopsis nod and rustle among the dead and fallen leaves of verbenas and wild geraniums. At this season, in years gone by, the ground has usually been mantled with snow; now I am reminded that it is bare, and that the prairie fowl are still enabled to gather a doubtful subsistence from the dry seeds of grasses and lupines that rattle out with the sweep of the passing wind. Of course, severity of weather may, and is likely to, follow, but a reference to carefully preserved meteorological tables informs me that each alternate year, through any given period, with almost invariable rule, is mild. The mean temperature of each alternate year varies fully three degrees. The present should be the mild year. I have, therefore, hoped for the preservation of the birds and good shooting next season.

Last year there were many conditions unfavorable for full bags for the sportsmen. The prairie fires destroyed the eggs in spring; drought and heat succeeded in mid-summer and throughout September, and the birds migrated to localities where food, and especially water, was more abundant. In hunting through both the northern and southern ranges of the State of Minnesota, I found that birds were abundant near to water reservoirs. The presence of farm buildings did not seem to frighten them off, for I repeatedly saw them roosting on the barn-yard fences. But one might traverse twenty miles of unoccupied and tenantless land, and, if there was no water, would scarcely flush a bird. Both the pinnated and sharp-tailed grouse are migratory, to the extent of changing their residence in quest of subsistence when necessity requires. So are all other wild animals, perhaps. On the prairies, as the river beds which were "booming" in spring gradually become dry in summer, the buffalo, the mustangs, the deer and the feathered tribes resort to basins and reservoirs, where the supplies of water still hold out. The pack animals which suffer from thirst, waterless, after prolonged marches, scent the water from afar and drag themselves to it. Even the instinct of domesticated stock teaches them to wander after food and water in seasons of prolonged drought. There is, then, nothing, remarkable in the periodical or occasional absence of game from long-frequented localities, and it does by no means follow that old haunts will not be occupied again. I expect next season to pick up a wagon-load of birds, where three veteran gunners with best of dogs hunted last fall in almost fruitless search. I do not even agree that much hunting on the open prairie drives away birds irretrievably. Nay, by scattering it preserves them. In the later fall they pack and are wild. Throughout the winter they forage, and if stress of hunger drives them back to the stubble fields whence they were driven in fall, there they will be found in the spring. Where the carcass or grain is, there the fowls are gathered together. Flies always congregate around the bung-hole.

Naturally the recollections of my vacation in Minnesota are chiefly of shooting. I went there after birds, and wherever there were birds, got them. But, bless me! what a place for game was the "land of the Dacotahs" when I visited it twenty years ago. I remember, as we tramped over the primitive, unsettled prairie in July and August, the young and old fowls fluttered continually up and out of the cover close by, and after flying a few yards, settled down leisurely into the grass and scrub again, scarcely noticing the disturbance. Acres of dead-ripe strawberries gleamed among the particular flowers, affording the birds a luscious dessert for the time being. So thickly did the berries cover the ground that the soles of our moccasins became saturated with the juice, and as our wagons creaked over the level or undulating trail the sun-dried axles mingled their shrieks and groans with the blood of the crushed, which bespattered and stained the wheels. Big bucks would occasionally "rise" a knoll and take a survey from the top, while gangs of deer were frequently jumped from their noonday siestas in the "drains" and "cooleys." No wonder the sons of Hiawatha regarded the domain of their ancestor as a Paradise into which no trespasser or unbidden stranger should come without toll or forfeit. With self-compacency they had watched the steady progress of white settlement westward—nay, even with indifference had they observed it; for did not the great lake "Michisawgyegon" and the trackless forests of Wisconsin interpose five hundred miles of land and water as a barrier to their advance? Nevertheless, the tidal wave of immigration rolled in resistlessly upon them, like when the ocean is stirred by an earthquake. The tomahawk was momentarily uplifted, and then it dropped listless and paralyzed for further mischief. Since the massacres the Indians have been peaceable

and submissive. The Sioux and Chippewas have even scarcely quarrelled among themselves. Those upon the reservations have just sufficient energy to sit and be fed, while the more enterprising among them roam about very much as they used to do in the halcyon days of their uninterrupted freedom and barbarism. Their tepees, or bark and skin houses, are scattered all over the land. One meets them in the forest, beside the lines of railways, and in the outskirts of villages and large towns. They are as common as dirt and twice as dirty. The stranger takes interest in them at first, but the novelty soon wears off and the attention ceases. He looks no more upon the Indian when he is red.

Most people have an idea that all Indians are alike squalid, stolid, bestial and brutal. They do not pause to consider that the like social and intellectual distinctions obtain among them as among other races. They are very apt to be humbugged into the belief that the ragamuffin who tricks himself out in green paint and turkey feathers, and courts attention by strutting to and fro with a dingy blanket over his shoulder, is a great brave or a chief of high renown. For this poor clown the head men of the tribes entertain the same respect that statesmen among us would bear toward a rag-picker or hoodlum. The social grades and properties are jealously maintained. Secret societies are numerous, and instituted for various purposes. Often disturbances, raids and massacres are set afoot by some one of these societies, without the knowledge or approval of the tribe. The massacre in Minnesota, which occurred some sixteen years ago, was brought about by such an agency, and many individuals friendly to the settlers were compelled by the obligations of secret societies to which they belonged to take part in a movement in which they had no heart. There is a kind of free-masonry which extends throughout the tribes all over the country, so that they are enabled to communicate with each other by signs and signals, either in company or at great distances. A notable illustration was manifested in the fact that the tribes in Minnesota were informed of the Ouster massacre long before the event was known to the whites. It is due, no doubt, to the good sense and intelligence of well-known chiefs that the peace has been so uniformly maintained in Minnesota for many years. I believe that the sportsman may safely travel wherever he lists, and often he will find the Indians to be good guides and desirable assistants in camp. In these days, however, when most parts of the State may be reached by railroads, which traverse it from east to west and north to south, the sportsman generally elects to avail himself of the luxuries and comforts which the railway managers provide for them. On all the lines are business cars, so-called, or coaches, which are specially fitted with cooking apparatus and bunks; these can be chartered for a given period, and be run over the lines to any point desired. I met several parties so equipped and provided.

Entering Minnesota by the great eastern gateway at Duluth, which is easily reached by steamer from Bayfield, Wisconsin, one can journey westward for five hundred and fifty miles by the Northern Pacific RR., to Bismarck, in Dacotah; or, halting at Glyndon, which is two-thirds the distance, he may run due north to Crookston; or, continuing beyond Glyndon to Morehead City, situated on the Red River of the North, he may take steamboat to Pembina and Fort Garry. Again, starting from Duluth, he may go south directly to St. Paul by rail; or taking the Northern Pacific Railroad, as before, he can run west to Brainerd, and then take the newly completed railroad down the Mississippi River to St. Paul, switching off at St. Cloud, if he chooses, to go west to Sank Centre. From St. Paul several railroads penetrate the central and south-western parts of the State. On the line of the Sioux City railroad, which follows the Minnesota River for many miles, some of the best shooting may be obtained. On any route, the sportsman has only to select his objective point, disembark, and locate himself at some inn or hospitable dwelling, where ordinary comforts are attainable.

No State in the Union is more beautifully diversified. Rivers and streams intersect it; lakes and innumerable ponds of all sizes are interspersed, some with bold wooded shores and gravelly beaches, and others bordered with rushes and grass marshes that harbor great varieties of wild fowl. There are vast belts of timber and trackless forests, where deer, bears, wild cats, wolves and ruffed grouse abide; prairies bare and level as a floor; and prairies undulating, and diversified with clumps of timber and fringes of cottonwood and aspen along the creeks and streams, hung with drooping vines. There are grass prairies where the pinnated grouse abound and the gopher digs his hole, and prairies of scrub oak and hazel which harbor the sharp-tailed grouse. Over all this broad domain the deer and coyote lope at random, stately cranes stalk, and hawks and buzzards hover. Twenty years ago the buffalo made it his favorite pasture, but he has gone, and not even a bleaching skull remains for a memento of his former presence. And all the summer through, from earliest spring till autumn, a flaming garniture of flowers bedecks the landscape. The atmosphere is pure and vitalizing, and through its transparent sheet, colors become intensely vivid. Objects at a distance, however harsh, when approached, wear the delicate and slaty hue of the wing of a dove or fading cloud. Mounds, bluffs, forests, haystacks, far away, loom up large and distinct as though close by. At mid-day the sun is reduced in size, brighter lower, and intensified to whiteness. At night the magnificent stars come bursting from the firmament like resplendent diamonds. In the silence and serenity of the lonely hour, the wayfarer lies down, and folding his blanket about

him, rests and sleeps. Sometimes the stillness is almost painful; not a sound is heard; scarcely the utterance of a solitary insect disturbs the all-pervading hush.

So let my rambling pen rest here. HALLOOK.

GAME PROTECTION.

THE CALIFORNIA FISH QUESTION.—The fishermen of Suisun Bay and of the rivers are circulating the following petition to the Legislature:

The undersigned, salmon fishermen of the waters of Suisun Bay and the rivers affluent thereto, do most respectfully petition and thus will ever pray: That the laws for the protection of salmon be so amended as to prohibit the taking, catching or possession of them from the 15th day of August to the 15th day of September in each year, and from the noon of each and every Saturday to the setting of the sun on the next succeeding Sunday, throughout the year. Your petitioners represent that, from practical knowledge and observation of the habits of this fish, they are convinced and conscientiously believe that the thorough enforcement of such prohibition would insure the perpetuation of his kind in our waters in great and undiminished abundance.

THE VENISON MARKET.—Two New York firms who were the consignees of some 1,500 head of Minnesota venison which, owing to the weather, they have been unable to dispose of, have obtained from the Association for the Protection of Game the guarantee of immunity from prosecution for the sale of the same in the close season, which began January 1. While this continued sale is in violation of the law, the game society having no power to alter the law, it is one of those instances where the spirit of the law may be considered rather than its strict letter enforced.

The Rifle.

BOSTON—Christmas.—There was a rifle contest at Lincoln's gallery for three prizes, among members of the Forest and Stream Rifle Association, distance 150 feet, each member allowed ten shots; possible score, 50 points; first prize, a box of cigars; second, \$2; third, \$1. Following is the score:

J. W. Fuller.....39 J. C. Smith.....34

George E. Young.....38 G. S. Nickerson.....34

James Emery, Jr.....38 F. B. Rogers.....34

J. D. Nickerson.....36 Freeman Emery.....34

J. A. Conquest.....35

WILLOWBROOK RIFLE RANGE.—There has been erected at this range two new targets and butts, one each at 200 and 500 yards, for the use of six companies of the First Regiment, four in Hartford and two in New Britain. A suitable building and firing stands have also been built, and everything is now in readiness for the battalion to practice. Captain Woodbridge, inspector of target practice, will be busy during the winter selecting and instructing a team to compete with a team from the Second Regiment next summer, for the possession of several prizes now in the adjutant-general's office, which were won at Creedmoor by the consolidated teams of the First and Second Connecticut regiments in 1875.

ZETTLER RIFLE CLUB.—This popular club held its weekly match at 207 Bowery, Dec. 28. Conditions—100 feet, off hand, Creedmoor target reduced; .22-cal. rifle; possible 50:

M. B. Engel.....49 L. A. Beates.....45

C. C. Zeitler.....48 M. Dorrier.....45

John Duttler.....48 W. R. Grohmann.....45

D. Miller.....47 F. Kramer.....45

M. L. Riggs.....47 W. Wiegand.....45

E. Zettler.....47 K. Zimmerman.....42

C. Judson.....45 R. Donell.....42

F. Farbarar.....45 R. Connor.....42

F. Feening.....45 F. Paterson.....42

HAOKENSAK RIFLE CLUB.—This active club met on Dec. 28 and shot for the Fream badge. The following are the scores:

W. Holberton.....4 5 4 5 4 4 4 4 4 4 4 4

B. L. Bruns.....4 4 4 4 4 4 4 4 4 4 4 4

E. Ackerman.....4 4 4 4 4 4 4 4 4 4 4 4

B. S. Barle.....4 3 4 3 4 3 4 4 4 4 4 4

M. P. Gentry.....4 3 4 4 2 3 4 4 4 4 4 4

O. Wells.....3 4 3 0 4 3 4 4 4 4 3 20

The badge having been won three times by Mr. W. Holberton, it now becomes the property of Mr. Holberton.

NEW ORLEANS RIFLE CLUB.—At the last general meeting of this club the following board of officers were elected to serve for one year: Dr. J. C. Beard, president; H. N. Soria, first vice-president; H. H. Haskings, second vice-president; L. A. Jung, recording secretary; J. Mullard, Jr., assistant recording secretary; Geo. Muller, financial secretary; M. Vonderbanck, treasurer; C. Kressner, shooting master; E. J. Wenck, Wm. Mithoff, Jr., J. J. Pittman, assistant shooting masters; Capt. A. C. Smith, M. Wintler, Capt. M. Cooney, directors.

FROGMOOR.—The military were out in full force on the 23d of December, and contested for the Christmas turkeys offered by the Crescent City Rifle Club. The different commands were well represented. Dr. George Howe gobbled up the first gobbler, J. M. Henderson the second, and the third will be claimed when he is out of the woods.

Dr. Geo. Howe.....5 4 4 5 4 4 22 BS Leathers.....5 4 4 4 4 22

Dudley Selph.....5 5 4 4 4 22 C. S. Loud, Jr.....4 4 4 4 4 22

J. M. Henderson.....4 4 5 4 4 21 CF Hunt.....4 4 4 4 4 20

Jules Piffaut.....4 4 5 4 4 21 B. Bercegeay.....4 4 4 4 4 19

C. C. Lewis, Jr.....4 4 4 4 5 20

The third competition by the Louisiana Field Artillery team for the badge, took place on the same day on the grounds of the club, and was won by Private B. DeRoux. Below are the leading scores out of a possible 25:

B. DeRoux.....3 4 4 5 3 19 J. B. Leveque.....5 4 5 2 3 17

R. F. Schmitz.....3 4 4 3 4 18 E. Bercegeay.....4 4 4 3 2 17

R. M. Muller.....4 5 3 3 3 18 M. Leannon.....4 2 4 3 2 15

The members of the Washington Artillery Rifle Club were out for practice, but owing to inclement weather not the usual large attendance put in an appearance. Conditions—200 yards off-hand, with Springfield rifle. No sighting shots allowed.

Dudley Selph.....4 3 4 5 4 4 4 4 4 4 4 4

J. M. Henderson.....4 4 4 5 4 4 4 4 4 4 4 4

B. S. Leathers.....4 4 4 5 4 4 4 4 4 4 4 4

Henry Dupre.....3 3 2 4 4 5 4 4 4 4 4 4

F. Michel.....3 2 4 3 3 3 2 2 4 4 3 3

Geo. W. Charleston.....3 3 4 3 3 3 3 3 3 3 3 3

C. C. Lewis, Jr.....5 0 5 2 4 0 3 3 0 5 2 3

## RIFLE PRACTICE OF THE NATIONAL GUARD, 1877.

WE beg to acknowledge the receipt of the report issued by Col. Geo. W. Wingate, general inspector of rifle practice, and Brigadier-General John B. Woodward, inspector general of the State of New York. From this interesting document we make the following abstracts:

**"Rifle Ranges.**—During the past year nine new ranges have been completed, viz.: at Albany, Watertown, Utica, Elmira, Ellipticville, Warsaw, Batavia and Lockport. This does not include several ranges established by separate companies. One range, that at Ithaca, has been closed for want of use. The official ranges now used by the National Guard are twenty in number, and are situated at Creedmoor, Albany, Watertown, Mount Vernon (Westchester County), Yonkers, Poughkeepsie, Syracuse, Utica, Oswego, Auburn, Binghamton, Oneonta, Rochester, Elmira, Buffalo, Ellipticville, Westfield, Warsaw, Batavia and Lockport. This is exclusive of several ranges established by various separate companies as to which I have received no report. During the year most of these were personally inspected by me and found to be in good condition. During the past season the range at Creedmoor has been used by over 8,000 troops practicing under orders, and if the addition be made of individual practice, the total number would be 12,000."

Col. Wingate gives the following excellent advice in regard to the construction of ranges:

"Heretofore the tendency in constructing rifle ranges has been to make them too large and too costly. This has been checked as far as possible and always should be. From 500 to 600 yards is the longest distance required for military shooting, and it is to military shooting that a range must look for support. The number who desire to shoot at greater distances is always small, and it is difficult and expensive to procure a range which will accommodate them. Neither is it necessary that a range should be exactly level, as inequalities of the ground may be overcome at a slight expense by the erection of raised firing points. Where a range has cost too much it suffers in the end. Its resources are consumed in keeping down its debt and its operations are constantly crippled. In establishing a range it never should be forgotten that if it is not convenient and easy of access it never will become popular or successful. This is too apt to be overlooked from an erroneous idea of the necessity of having a 1,000-yards range. Neither is it necessary that a range should be purchased or be devoted exclusively to rifle practice. Generally the right to shoot over it upon as many days as are necessary can be secured at a moderate rent. Where the companies of a regiment are detached it is better to have several company ranges, though of the cheapest and most primitive description, than one first-class regimental range. The former plan will result in improving all the companies, while the latter will only help those located near it. As a general thing the saving in the transportation of detached companies will, in a single year, go far toward fitting up separate ranges for them. I think this should be borne in mind in making appropriations for ranges during the next year."

**"Improvement in Marksmanship.**—The great improvement in skill that has been shown in the practice of the troops in the past two years still continues, although the general ignorance in regard to the use of the rifle, which was universal a few years ago, is so rapidly diminishing that the time will soon arrive when the percentages of annual improvement which have hitherto been shown can no longer be attained. This period, however, has not yet been reached. Not only has the number of those qualifying in the lower classes increased during the past year, but the skill displayed by those shooting is of a much higher grade. This is especially shown by the great increase in the number of marksmen. The aggregate number of men of whose practice reports have been received, was 13,343, as against 10,946 in 1876, and 7,670 in 1875. Of these 8,024, or about 68 per cent. qualified in the third class (at 100 and 150 yards), as against 5,341 in 1876 and 2,235 in 1875. Of these 4,930, or about 61 per cent. qualified in the second class (at 200 and 400 yards), as against 2,909 in 1876 and 802 in 1875, a gain of 63 per cent. The total number reported as qualifying as marksmen was 2,126, as against 918 in 1876 and 533 in 1875, being 16 per cent. of those shooting, and a gain of 131 per cent."

In regard to actual practice on the range, Col. Wingate reports:

"In order to make rifle shooting attractive, it is necessary that when men are taken to the range they should be kept shooting. If they spend an entire day, and are allowed to fire only ten shots (as was frequently the case in previous years), they feel as if they had wasted their time. Moreover, the great object to be kept in view is, not the training of a few skilled marksmen, but the instruction of the entire rank and file so as to enable all to have a fair degree of skill with their rifles, and those men who fail to qualify on the first trial are precisely the ones in regard to whose instruction the most attention should be paid. During the practice season volley firing was practiced in the First, Second and several of the other brigades shooting at Creedmoor. The result was beneficial, but the practice was obliged to be discontinued from the injury to the targets and glass caused by the shock of so many bullets and the resulting "splash." This can be obviated by the use of temporary wooden targets placed between the present ones, which might be covered with paper, so that each squad might have a target, which could be removed when its practice is completed, so as to save time in counting the shots.

"Volley firing and also file firing are valuable as giving the men that "fire discipline" upon which so much stress is laid in the German army, and which accustoms them to the conditions of actual warfare. It is, however, a portion of instruction which should not be taken up except by those who have acquired sufficient skill in individual practice as to qualify as first-class shooters.

"I think the number of these have now become so great as to make it proper that some practice of this description should hereafter be permitted. A prize for volley or file firing by company teams would be useful, and I hope to see such a match introduced by the National Rifle Association and the other rifle associations of the State."

In revising the Inter-State match, and comparing the scores made with similar matches abroad, the report of the Inspector-General presents the following interesting facts:

If the scores made in this match are compared with those made in a recent contest between the English Volunteers and Regulars, it will be seen that the Volunteers (Queen's Westminster) using the Snider, averaged 33.4 at 200 yards, and 35.80 at 500 yards, total average 74.20; the Regulars (Scotch

Grays), using the Henry-Martini, averaged at both distances 72.10. In the Inter-State match the averages of California were 41.53 at 200 and 41.33 at 500—total, 82.91, and of New York 40 at 200 and 40.53 at 500—total, 80.53. The comparison at 200 yards may not be valuable, as the English shot lying down and at a smaller target, but at the longer distance the conditions were the same.

The inspector pays the following merited complement to the victors:

The pluck and interest manifested by the California team in coming such a distance to participate in this match, and the skill they have displayed is worthy of the warmest commendation, and no regret should be felt at their success. On the contrary, their victory has done much to increase the public interest in this competition, and to make it a national instead of a local contest.

As to accidents, Colonel Wingate is happy to state that he knows of no serious accident. The changes in the form of the butts introduced last year having prevented the injuries to the markers from the "splash" of the bullets, which formerly were apt to follow from firing on a wrong target, and which threatened to become a serious drawback to the use of iron targets.

The report is very thorough of its kind, and embraces the practice of all the various regiments with percentage of improvement, and many details, from which we find that the Seventy-first Regiment is the first in order of merit, their figure of merit being represented by 85.63. In a future issue we propose entering into further details in regard to this report.

## A CURIOUS RIFLE BALL.

EDITOR FOREST AND STREAM:

MONTREAL, Nov. 27, 1877.

For the past twelve years I have annually hunted the red deer in the same locality—on one of the southern tributaries of the Ottawa River. The "Bush" is about twelve miles in diameter, and is surrounded by settlements, which go far to preclude the chance of deer from other parts wandering into these. I do not exaggerate when I say I am familiar with the makes of all the guns that have been used by others in that district during that period. Last month I shot the largest stag I have ever seen. All hands said it must weigh indressed at least 400 pounds; it had eleven points on one horn and ten on the other. When the skin was removed, I noticed on that portion that covered the neck a lump, the cause of which I at once proceeded to investigate with my knife, when I extricated from a compact mass of gristly matter on the skin, a bullet, the like of which I have never seen before; neither have any of the old settlers in that neighborhood seen an arm discharging such a missile. This bullet I have sent for your inspection by a friend residing in New York, who leaves this city to-day. I refer this matter to your wide experience, that you may express your views as to the arm which discharged the shot. Your conclusions may also tend in some measure to throw further light on the question of the duration of life of the red deer, inasmuch as many years must have elapsed since this strangely formed bullet bored its way through the deer's hide.

Yours truly,

R. H. KILBY.



[We have carefully studied over the bullet sent by our correspondent, of which we give a fac-simile. The diameter of this nondescript ball is 74-100; length, 15-16, and length of bearing in rifling 17-32d of an inch; weight, 1½ oz. The ball has twelve grooves and bands. We think it is a ball belonging to a system of arms in use fully fifty years ago. The bullet was expanded laterally by mechanical force, applied with the ram-rod. This seems quite evident, as the folds of the paper cartridge are indented on the base of the ball. We think the arm which fired this bullet was of French or German make. We should be glad if any of our readers would further enlighten us in regard to this ball.]

## GEN. PORTER ON AMERICAN ARMS.

A public dinner in this city, without a response from Gen. Horace Porter to one or another of the toasts, would undoubtedly leave a fit of indigestion upon the diners. He, quiet and sedate himself, raises such rolls and peals of laughter, so side-splitting efforts in cachinnation, as to positively endanger the lives of many of his hearers. The "Army and Navy" is the general peg on which Gen. Porter hangs his witticisms, but as he has given up the profession of arms for the more peaceful calling of managing the Pullman Palace Car Company, hence it was necessary to change somewhat the usual toast; but Yankee ingenuity was equal to the task at the dinner of the New England Society, at Delmonico's, on the evening of the 22d, and it was our pleasure to hear another of his sparkling talks in response to the toast:

"Internal improvements—The triumph of American invention, the modern palaces run on wheels. 'When thy car is laden with (dead) heads, good 'Porter' turn the key.'"

Secretary of State, Evarts, speaking of the readiness of the people to sustain their rights by arms, said that "Bayonets are not an institution to be sat upon." Gen. Porter supplemented this by continuing:

"The Secretary of War has told you that bayonets are not an institution to be sat down upon; they are equally bad to be tossed upon. If these things go on, and bayonets are to be encouraged by the secretary to such irregular proceedings, and hold up such terrors to the army, a man won't know where to wear his breast-plate. [Laughter.] A little time ago, when some of us youngsters in the war thought we were doing well enough to shoot people with the single-loading rifle, along comes the inventive Yankee, and then we had Gatling guns and repeaters and magazine guns, and pretty soon we shall have weapons we can load upon Sunday to last us through the week. But not only in the guns, but in the

style of using them as well, we have turned things about. Now, when a man is about to shoot, he flops down on his back, twists himself about a rifle barrel, rests the end of it on his big toe, looks through a complete set of astronomical instruments, and hits every time. [Laughter.] It used to be the man who was shot, but now it is the man who shoots that drops on his back and cooks up his toes. Not content to do our own experimenting in arms, we have invigiled other nations to war by our tempting little pieces. Russia and Turkey got our arms, and went to war to try them, and little Greece got a schooner load, and is itching to take a hand in somewhere to see how they work."

A REPLY TO SIR HENRY HALFORD.—The *Volunteer Service Gazette*, of the 15th of December, publishes an interesting letter of Mr. Geo. S. Schermerhorn, Jr., secretary of the N. R. A., in regard to the practice of the Americans as a team. From Mr. Schermerhorn's letter we take the following extracts, in reply to Sir Henry Halford, who writes:

"The team we had to contend against had been at work as a team since April last, with its staff of coaches and spotters, in whom its men learned to place the utmost reliance, upon the very ranges on which the match was shot. On the other hand, our men were only able to have three days' practice together as a team."

The secretary of the N. R. A. makes the following statement:

"I think Sir Henry is very much in error in this statement, as I shall attempt to show: It was not until June 9, 1877, that the Board of Directors of the National Rifle Association adopted a programme for the selection of the American team of 1877, and appointed therein a series of four competitions of two days each, viz., July 17 and 18, 24 and 25, 31, and August 1, 7 and 8. On the 14th of August the American team was selected in accordance with the terms of this programme.

"The first practice as a team was upon August 21 and 22; the second practice was held August 23 and 29, and on these last two days the range was also occupied by our welcome guests, the British riflemen. On September 1 the British practiced, but the Americans did not; on September 4 and 5 both parties practiced; on September 8 the British again practiced, but the Americans did not. To recapitulate, the Americans practiced as a team only two days before the arrival of the British team and four days afterward—a very different thing you will admit from 'practice as a team from April last.'"

"It is true that Sir Henry Halford, exercising his judgment, practiced nine men even on the very last day for practice; but it is also true that the British riflemen practiced six days upon the range before the week of the match. No one will be likely to claim that during the competitions for places on the American team, when each man was striving to secure for himself, and without the privilege of coach or spotter, one of these coveted places, that this was *team practice*."

In our issue of December 6 we published similar information in regard to the actual practice of our American riflemen as a team, and are only too glad that the secretary of the N. R. A. substantiates the facts then advanced by us.

MAGAZINE GUNS.—The Secretary of War, it is reported, will invite inventors and manufacturers of magazine guns to submit their models before a board of officers, which is to meet some time early in April; calibre must be .45. We have always affirmed that the magazine gun is the gun of the future.

## The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed signs of suffering, etc.

## RABIES CANINA.

920 FORTY-SEVENTH ST., N. W., Washington, D. C.

EDITOR FOREST AND STREAM:

I have just returned from seeing a case of hydrophobia, the history of which may possibly prove of interest to yourself and readers, and I am the more anxious to send you this account, as it shows (at least clearly to me) that the nitrate of silver (Junar caustic) is not the agent we should employ to cauterize wounds made by a rabid dog. In October last, the 20th, I think, a young lad, seventeen years of age, living near Jenalltown, while standing in front of his father's house, saw a nound-dog coming down the road, and as the animal appeared to be astray, and as he wanted a dog for rabbit hunting, he approached it, and finally took it in his arms, intending to carry it to the stable. He patted and fondled it, the dog meeting his advances kindly; but when he playfully puffed its ears it turned and bit him slightly on the left hand near the base of the little finger. Going into the house he recounted the circumstance to his mother, who at once took him to a physician, who, in view of the fact that the animal had evinced no symptoms of madness, did not deem it necessary to cauterize or excise the wound. Two or three days afterward the wound commenced to tingle, burn and throb, and he was again conveyed to a physician, who applied lunar caustic. The wound healed kindly, and nothing more was thought of the matter, but on Dec. 15 he complained of a feeling of soreness in the throat, with a sense of constriction in the præcordial region; shortly after he had a slight chill. Upon attempting to drink water he found it impossible, and was nearly suffocated at each attempt. The family physician was at once sent for, and recognized his dangerous malady. He grew rapidly worse, and had paroxysms of partial delirium, with occasional fits of apnoea, during which his breathing would cease for a considerable period. A consultation was called of a number of the most eminent men of the profession, and everything was

tried to alleviate his sufferings, with the exception of Woorara, the South American arrow poison. Finally, chloral hydrate was settled upon as the remedy likely to be of most benefit, and thirty grains of it were given per anum every hour. This drug certainly cut short the spasms and lessened the sufferings, but at a few minutes of five, this morning, he quietly breathed his last. During his illness the radial pulse oscillated between 130 and 180 beats per minute, his temperature being about 104 deg. Fahrenheit. In the *Medical Record*, of Dec. 15, 1877, will be found a report of a case of hydrophobia by Dr. Warner, and the readers of this article will do well to peruse it, as it is an almost counterpart of the case I have just related. It is particularly noticeable from the fact that many of the symptoms popularly believed to exist in cases of hydrophobia were entirely wanting. There was no violence, no desire to bite, nor were the convulsions very strongly marked. Now, what should have been the proper treatment of this case from the first—that is, the prophylaxis or prevention of the terrible disease from which the poor fellow lost his life? In view of my experience, which has been related in the columns of this journal, I feel warranted in saying that free excision of the wounded parts, if possible, followed by the application of fuming nitric acid, with an after dressing of the fermented poultice, sprinkled with a solution of permanganate of potassa, would have afforded an almost absolute certainty that the septic germs had been destroyed. The nitrate of silver does not go deep enough; it forms a scab, an albuminate of silver, and underneath it the terrible poison is incubating, and shortly is absorbed into the system and spreads like wild-fire, producing, almost inevitably, death. I am forcible in my denunciation of lunar caustic, for in this case, I regret to say, the third in which, within my own knowledge, a misplaced confidence in the remedy has been followed by fatal consequences, and I expect to see more. In my own case, were I bitten by any dog, rather than run a terrible risk I would at once follow the plan of treatment I have suggested, and you will remember, Mr. Editor, how heroically I did this in my own son's case, no fatal results following. If the bite or bites cannot be excised or cauterized at once, do it as soon as possible, even after a week or even longer.

Very truly yours,

H. C. YARROW.

TWO FOXES IN THE FIELD.

FOX HUNTING IN NORTH CAROLINA.

FIRST DAY.

I WILL give you an accurate account of a week's fox-hunting in this vicinity, beginning on the Monday, Nov. 12, and terminating Saturday evening, on the 17th.

Just before sunrise, Monday morning, my horn summoned my pack to arise and prepare for sport. It was in fine trim, and vociferously responded to the summons. Mounting Lord Elgin, I dashed at rapid pace for the hunting grounds, some three miles distant. As soon as they were reached Driver gave mouth. All flew to him and seconded his strike, clustering around a stump, smelling closely, then elevating their heads, loudly proclaimed "just so!" But the stump afforded the strongest scent, and the trail could not be carried forward without close nosing. It soon turned into a road, when the track was plain and the direction right. I followed the road more than a mile before the fox left it. A few persimmon trees in an adjoining field invited him from it. After partaking of his favorite fruit, his direction was resumed and continued through woods and old fields until he entered an enclosed piece of cut down pines to rest and luxuriate in the sun. So securely and so soundly did he rest that the pack surrounded him before he suspected their intention. But he was up and equal to the emergency. Squirrel-like, he mounted the logs and limbs, over the heads of the hounds while they were underneath the brushwood, jumping and flying in every direction, and made off at rapid speed before they got fairly out of this entanglement. He made a straight run West for a mile, when he discovered his safety depended upon better strategy, and he began the double, hoping to throw off the pack by abrupt turns. His efforts were unsuccessful, and in nine minutes he eased in and threw up the sponge. I had scarcely rested after returning home before the shrill sound of a small horn announced the coming of some huntsman friend. It must be Broadnax, of Virginia; but, no! the horn is too soft for him. I went to meet the most welcome comer, and noticed at the outer gate, some 500 yards distant, a single rider and six dogs. In a few minutes the rider was before me. He handed me a note from Genl. P. B. Starke, of Virginia, written in a most affectionate strain tendering me six of the best dogs of his pack. I had ten couple already of staunch and reliable qualities, and this addition made my pack capable of an assortment to suit any and every style of hunting. I had scarcely fed and put them in the kennel before a note is handed me by a special comer with the pleasant information of, "I am down—join me in the morning. Say when and where,"

BROADNAX.

I immediately replied, "Certainly—about sunrise—our objective point must be Mrs. Mason's, keep a converging line to Arrington's."

SECOND DAY.

At a very early hour on Tuesday morning, Nov. 13, I was up and ready for operations. I soon warmed my bread, made a pot of strong hot coffee, with pure fresh cream and butter, and sat down to a breakfast which only huntsmen know how to appreciate. Before the sun was up I blew my horn, mounted Lord Elgin, and in a trice was off as agreed upon. I had not proceeded far in the line decided upon before a courier came to me from Broadnax with the pleasing information that the old red had been seen that morning after day on Gobbins Hill, two miles below Gaston. I pressed forward with quickened pace and soon came to the hunting party quietly waiting my arrival. We had scarcely finished salutations when I was consulted whether the old red or a gray should be hunted. "The old red, of course," I replied. All the party except Broadnax had urged a gray, but my choice prevailed, and off we moved in the direction of Gobbins Hill. We had scarcely arrived at its base before the fox's trail was struck. In an instant the fox was up and off. The start was fair in every essential. Not a dog was out of place. The fox ran out of a small thicket in full view of the foremost huntsmen, bounding like a ball and clearing a deep ravine just there, without effort. He was too closely pressed to run before the wind, as was his invariable practice, but rushed

right away regardless of wind or tide, earnestly endeavoring to gain distance. After a straight run of a mile he was forced to make a curve and traverse nearly his track. I halted with several others to note his next dodge as soon as the sound of the pack indicated this movement. As quick as thought the fox passed us with thirty steps, and close upon him came thundering the whole pack. The woods fairly trembled with the sound. Twenty-six couples of hounds as noisy as forty pianos, make no ordinary music. The same number of clarionets could not produce such lively music. We marked the leading dogs; Broadnax had three covering the track and clear in advance of the pack. Where is Gen. Starke's Dolly? there she is, but a little to the left of the trio. Where is my Logan? still further to the left, and still further outside of all, is my Rodman, moving like a frightened cur, and with such speed that a mere glimpse is afforded us. After passing us the fox ran down the Roanoke for a mile or more, and curved back, laying his course up that stream. I again halted to note as before the leading dogs. Several had been thrown out and stopped with me, seeming disinclined to take further part in the chase. I had scarcely posted myself before the fox ran right square up to me, in full view of the dogs with me, but soon out again. The pack came dashing on with Gen. Starke's Dolly first in my sight. I had no time to wait the approach of her or the pack, but pressed for the dogs (only three) that had accidentally disturbed the sport. I soon, however, got a large number up, and no time was lost or distance gained by the fox. His course too was not turned. Up the Roanoke he moved with falling pace to Broadnax's plantation at Gaston. Then he turned north and made for an oak forest on the river hills near Dr. Wilkin's. As the dogs came out of the forest I saw Broadnax's Bill Ney and my Comet fully thirty paces ahead, and the pack only the half of its proper size. How is this? What has occurred? It was evident. I left the other huntsmen, dashed back and soon came upon some eighteen of the best runners in the field in close pursuit of a gray. The very first break was taken advantage of. I broke them off and dashed for Gobbins Hill, a noted place for observation. On its summit I met the pack after the red, who had adroitly got a good distance ahead, and had matters just as he wished. But my reinforcement soon changed this condition of things, and we were again at his heels. He must have loitered in the same forest in which the pack was divided, for he came out of it not a hundred steps in advance of the pack. He ran right toward the Gaston low grounds, then turned abruptly back on his tracks, ran into a thicket on the outskirts of the low grounds, and out ran a gray fox, both red and grey in full view of the huntsmen at the same time. Unfortunately my dog pursued the gray, and after a spirited race of ten or fifteen minutes caught him. We were now more than a mile from the place where the change of foxes occurred, and knowing the old red would continue to move as long as a note like a horn could be heard, we counseled and determined to rest Wednesday (Nov. 14) and to make an early move on him Thursday morning (Nov. 15). And in my next you shall have the result, though I am now laboring under the effect of the largest freshest ever witnessed in the Roanoke, sweeping away every thing in its violent course, fodder, oats and pumpkins, and submerging my entire crop of corn. This river has manifested a turbulence this fall not heretofore witnessed by me, and now has grown into a bad sea, reaching from hill to hill and covering every foot of land between. But amidst all this destruction I mounted Lord Elgin this morning and hunted its hills with my usual good spirits.

Gaston, N. C., Nov. 26, 1877. T. G. T.

**BIRMINGHAM DOG SHOW.**—This leading English dog show was concluded in the week ending December 8, and there were over 1,000 entries. The following gentlemen were the judges:

**POINTERS.**—Viscount Combermere and Messrs T L Brewer and E Lewis. **BLOODHOUNDS,** Mastiffs and St Bernards—Mr E Hanbury. **DEERHOUNDS** and **GREYHOUNDS**—Mr S Malabay. **OTTENHOUNDS,** Hartiers, Beagles, Dachshunds, Dalmatians, and Foreign Non-sporting Dogs—Mr T Fisher. **FOX-TERRIERS**—Mr W Cropper and the Rev Cecil Legard. **SETTERS**—Rev R O'Callaghan and Mr O G Ross. **RETRIEVERS**—Mr W Lort and Col J Allison. **SPANIELS**—Mr C B Hodgson, Major H W Willett and the Rev A L Willett. **NEWFOUNDLANDS** and **FOREIGN SPORTING DOGS**—Mr W Lort and Mr M Smith. **SHEEP DOGS**—Mr W Lort. **BULLDOGS** and **BULL-TERRIERS**—Mr J Taylor and Mr J Percival. **SMOOTH-HAIRED,** Black and Tan and Yorkshire Terriers, Pomeranians, Pugs, Maltese, Italian Greyhounds, Blenheim and King Charles Spaniels and Toy Terriers—Mr M Hadley and Mr P Eden. **SKYE TERRIERS,** Dandies, Bedlington, Wire-haired and Broken-haired Terriers—Mr J Nisbet and Mr G Parker.

We give the prize-winners in pointers and setters:

**POINTERS**—(large size)—Dogs (Champion Class)—Prize, Mr R Price's Wagg; H C, Mr J H Whitehouse's Trent. **Bitches** (large size, Champion Class)—Prize, O H Mason's Lady Isabel. **Dogs** (large size)—First, Mr T Sturgeon's Barr; second, Mr G Pilkington's Faust; C, M R Price's Eos Gymrwy. **Bitches** (large size)—First, Mr G T Bartram's Stella; second, Mr G Moore's Maggie; H C, Mr J E Mason's Nina; C, Mr R Price's Mend and Mr J N Clark's Blair. **Dogs**, small size, Champion Class—Prize, J H Whitehouse's Cedric. **Bitches**, small size, Champion Class—Prize, Mr J Fletcher's Luna; H C, Mr J H Whitehouse's Lady Pearl. **Dogs**, small size—First, Mr R P Leach's Ben; second, Mr G T Bartram's Special; C, Mr J Kennedy's Priam. **Bitches**, small size—First, Mr J H Whitehouse's Reine; second, Mr R Price's Bow Belle; H C, Mr J Ineson's Flora; C, Mr J H Whitehouse's Regent and Mr J Higgins' Juno.

**SETTERS,** English—Dogs, except black and tan, Champion Class—Prize, Mr J Fletcher's Book. **Bitches**—Prize, Mr W Van Wart's Belle. **Dogs**—First, Mr G de L Macdonna's Ranger III, late Dick; second, Mr R L Purcell-Llewellyn's Count Dick; V H C, Mr R L Purcell-Llewellyn's Prince Royal and Mr F Jones' Roll II. **Bitches**—First, Mr R L Purcell-Llewellyn's Princess; second, Mr R L Purcell-Llewellyn's Novel; V H C, Mr A H Jubb's Kate. **Dogs**, black and tan, Champion Class—Prize, Mr W Coath's Lang. **Bitches**—Prize, Mr E L Parson's Floss. **Dogs**, black and tan—First, Mr J T Richardson's Duke; second, Capt F W Rankin's Monarch; V H C, Mr O H Mason's Benad and Mr H Maplebeck's Blossom; C, Mr T W Webley's Seamp II. **Bitches**—First, Mr W M Eglington's Nell; second, Mr T A Nugent's Sherry; V H C, Mr R Cathcart's Rapid. **Dogs** and **Bitches**, Irish, Champion Class—Prize, Mr T M Hilliard's Palmerston. **Dogs**, Irish—First, Mr G de L Macdonna's Rover; second, Mr J Kennedy's Dick; H C, Mr F W Ears' Rover and Mr J Fletcher's Grouse. **Bitches**—First, Mr J H O'Brien's Kate; second, Mr J S Skidmore's Poll.

The show of the kennel club was to take place immediately afterward, at the Alexandra Palace. Nearly 1,200 dogs had been entered, including representatives from the best kennels in England.

**ST. LOUIS BENCH SHOW.**—The interest in this show is still at fever heat, and all the officers are doing their best to make the event a leading one in Western canine annals. Many special prizes are coming in—in fact already their aggregate value surpasses \$2,000. About next week we trust to be able

to give the fullest details. Special rates have been obtained on all the railroads coming into St. Louis. A change, we are informed, has been made in the \$100 kennel prize by the substitution of the words *or bred*; now it reads dogs, "owned or bred." The medals for sportsmen's goods are quite costly and represent, as announced, every dollar of their actual value. As there are no entry fees for sportsmen's goods, to win these prizes would, of course, be an important object. Miss McKellops has presented one of her best pictures, worth, at the lowest, \$150. Some of the judges have been already appointed, among them we may mention Col. Skinner and Dr. R. Young. The association have engaged the rink for the whole of January and February, so as to have the place perfectly under their control long before the bench show commences. Want of space prevents our giving the classifications in this number. We trust to find a place for it in our next.

**DETROIT BENCH SHOW.**—It will be seen from the following that the proposed show has been postponed:

DETROIT, Dec. 20, 1877.

*Editor Forest and Stream and Rod and Gun:*

DEAR SIR—Owing to the committee not being able to engage a satisfactory placeto hold the bench show, it is postponed for the present, much to the regret of many owners of dogs. Yours truly,

CHARLES LINCOLN.

**MASSACHUSETTS KENNEL CLUB.**—Boston, Dec. 31.—*Editor Forest and Stream:*—The Massachusetts Kennel Club, at their last meeting, decided to give their initiatory bench show in the early spring, probably during March.

Commenting on the Alexandra Palace Bench Show, the *Live Stock Journal* has the following remarks:

"Turning now to the show we have to review, to commence with, the honest open judging—the public can see it; the press, catalogue in hand, can look on; the press is not even deterred from talking to a judge. The dogs, too, are led around a large open ring, where every flaw or fault in head, or limb, or loin, may be spotted at a glance. The judges, as a rule, are better chosen than at Birmingham. The dogs, too, may be led round by the owners, or their servants, and this is a great advantage. How, for example, can a setter show head or stern if he is dragged and bullied into the ring by a man that makes him tremble? The time the dogs are confined at this great show is but four days, and they are brought in on the morning of the show, thus reducing the actual time of their incarceration to a minimum.

Future associations having bench shows in view, would do well to think about all such matters. In the centre of every bench show room, there should be made some kind of an inclosure, where the dogs can be moved when being judged. Hauling a dog down stairs and up stairs to be judged does not improve him.

**DOG AND POULTRY SHOW AT PITTSBURGH.**—The Western Pennsylvania Poultry Society will hold its sixth annual exhibition at the City Hall Pittsburgh, commencing on January 17th, and concluding on the 25th. Address E. Gregg, President, or C. B. Elben, Secretary. The show is open to dogs, under the rules of the Kennel Club, and it is believed that a fine show of dogs and poultry will be on exhibition.

**MEADVILLE PA. ASSOCIATION.**—The Meadville Dog, Poultry, Pigeon, and Pet Stock Association, will hold their first show on the 25th, 26th, 27th and 29th Jan., 1878, at Meadville, Pa. Premium lists will be furnished on application to the corresponding secretary. The following are the officers: President, A. McLaren; Vice-President, Dr. S. A. Gawan; Corresponding Secretary, W. A. Logan; Recording Secretary, Wm. Craston; Treasurer, J. Worst; Executive Committee, J. W. Babcock, Edgar Hindekoper, Geo. M. Orris, O. H. Blystone, Chas. Colt, M. Minium, and C. McLean.

**MASSACHUSETTS KENNEL CLUB.**—This association, which undoubtedly will occupy a leading position in canine matters in New England, held its first meeting on Dec. 5, 1877, when the following gentlemen were elected: W. H. Cowing, president; J. Pottler, Jr., first vice-president; E. L. Dorr, second vice-president; T. T. Sawyer, Jr., treasurer; E. J. Forster, secretary, who also constitute ex-officio the executive committee. The charter (under the General Law of Massachusetts) was obtained from the Secretary of State, Dec. 12, 1877.

The object of the club is stated in the constitution, namely, "To encourage interest in dogs, promote improvement in their breeding and management by means of exhibitions, the distribution of awards, the gathering and disseminating of reliable and practical information relating thereto; or by such other means as the club may vote."

The association is composed so far of gentlemen of Boston. In addition to the officers already mentioned, the following gentlemen are members of the Massachusetts Kennel Club: Dr. J. Nelson Borland, Dr. P. B. Greenough, Mr. Lee J. Colley, Samuel W. Rodman, Frank L. Barnes, James F. Curtis, Samuel Hammond, W. P. Fay, Luther Adams, Edward P. Brown, Edward E. Hardy, and Charles E. Fuller, all of whom are of Boston. The membership is limited to twenty-five.

**RABIES CANINA.**—We would direct particular attention to a communication addressed to us by Dr. H. C. Yarrow, U. S. A. Dr. Yarrow's advice in regard to the method of treatment in hydrophobia comes quite opportunely as an adjunct to Sir Thomas Watson's admirable paper on hydrophobia and rabies, published in the *Nineteenth Century*. We propose in the next issue of the *FOREST AND STREAM AND ROD AND GUN* to give a careful abstract of Sir Thomas Watson's excellent article. We have implicit faith in Dr. Yarrow's medical judgment, and believe that by his method of treatment for hydrophobia lives can be saved.

## Yachting and Boating.

### HIGH WATER FOR THE WEEK.

Date.	Boston.		New York.		Charleston.	
	H.	M.	H.	M.	H.	M.
Jan. 4.....	0	41	8	49	8	09
Jan. 5.....	1	29	10	17	9	29
Jan. 6.....	1	57	10	53	10	03
Jan. 7.....	2	41	11	38	10	39
Jan. 8.....	3	07	0	04	11	36
Jan. 9.....	3	45	0	42	11	06

THE ROWING SEASON OF 1878.—The rowing season opens with a series of challenges to championship match, which, with others likely to succeed them, will make the year 1878 memorable in aquatic annals. Courtney having accepted the challenge of Trickett, the Australian oarsman, will meet that formidable rival on American waters in a match for the championship. In the meanwhile a number of contests will in all probability come off, the result of which may materially affect this world-championship match. Boyd and Higgins meet shortly on the Tyne for their third and final contest for the English championship. The winner proposes to meet Trickett for the world's championship, and should he come out the better man, it would provide a new opponent for our American sculler. We agree with the *Herald* that this match should come off on American waters instead of the Englishman going to Australia, expending time and money in the long journey there. Then there are other complications on this side of the Atlantic. Courtney pulled as an amateur at the Centennial, and consequently did not then meet Hanlon, of Toronto, who won the American professional championship. A match between these two should be rowed before the match with Trickett, or, in case he is defeated, with Boyd or Higgins as the case may be. Then there are to be meetings of Hanlon with Scharf and Morris, and the result of these must, of course, be calculated as affecting the final match. Of one thing at least may we be confident: the man who proves himself the best oarsman will have a hard-won victory, and will richly deserve all the honors attaching to that distinction.

COURTNEY CHALLENGES AMERICA.—Courtney has sent out a challenge to any oarsman in the United States or Canada for any amount of money and the championship of America, the race to be rowed prior to the Trickett match in July next.

COURTNEY AND TRICKETT.—These two oarsmen are likely to row together. Courtney has accepted the latter's challenge to row a three-mile race, straightaway, for £1,000 a side, £250 forfeit, on any neutral water in the United States, and has named Oswego Lake for the meeting.

COLUMBIA IN ENGLAND.—Columbia's crew now proposes a European tour. They go first to England to engage in the Henly races on the Thames, and from there to Paris. The six men from whom the final four are to be chosen are Messrs. Goodwin, Boyd, Sage, Colgate, Timpon and Ridabock. Captain Goodwin and Mr. Timpon, it will be remembered, have a record running back to the University race of 1874. Messrs. Boyd and Sage were in the '75 crew; and the others have pulled in the past season. The crew have been very successful in this last summer, beating picked fours of the Atalanta and Argonauta clubs. From England the crew go to Paris to participate in the Exposition races.

—Hon. Oscar Jasigi, the Ottoman Consul General at Boston, was reported off the Wekavacha River, west coast of Florida, Gulf of Mexico, on Dec. 21st, in his beautiful yacht "Al Fresco." He is on a pleasure tour, and is accompanied by Mr. Fred L'Estrang Hart.

BOAT FOR FLORIDA WATERS.—We intended to inform our correspondent M., in a recent issue by a foot-note in his letter in our Yachting column, that Dr. Kenworthy ("Al Fresco") has more than once taken great pains to give the specifications and working plans of a boat which long experience has taught him is the best adapted for use in Florida waters. An article which enters into the subject in detail will be found in a former issue.

ST. LOUIS, Dec. 27, 1877.

EDITOR FOREST AND STREAM:

I am deeply interested in the articles on boat building by "Nauticus," and have been able to follow him easily with but one exception—that is: how does he obtain the water-lines in the half-breadth plan? (See diagram on page 256, issue Nov. 1st.) He says, "Mark on each cross-timber the points where the water-lines cross them." How does he get the proper distances at which to mark these points? An early answer will oblige.

W. B. S.

## National Pastimes.

NEW YORK ATHLETIC CLUB.—The athletic tournament which is to be held under the auspices of this club at Gilmore's Garden to-morrow evening and Friday evening, comprises sixteen contests, for each of which the list of entries is remarkably full. The programme for each evening has been so arranged as to afford a varied and attractive entertainment. There are in all one hundred and eighty-two entries, representing all the prominent athletic clubs of the vicinity. The numbers of contestants in each match are: Half mile run, 15; one mile run, 13; seventy-five yards hurdle, 4; sparring, light weight, 5; middle weight, 5; heavy weight, 5; fencing, 5; seventy-five yards, special, 4; one mile walk, special, 5; one lap hurdle, 11; seventy-five yards, handicap, 33; amateur tug of war, 5 teams of 10 men; professional tug of war, 4 teams of 5 men; four hundred yards, handicap, 21; mile walk for those who have never beaten 8:30, 27; two-mile walk, handicap, 16.

POLICE ATHLETIC TOURNAMENT AT GILMORE'S.—The programme of the coming Policemen's Athletic Meeting at Gilmore's has already been referred to by us as unusually large and attractive. The prizes of the various contests are to be competed for by a number of keen contestants. Of course, some fine display of muscle may be expected; for what is a policeman if not athletic, and when one goes to witness the best physical development of men who are, from their calling, supposed to be unusually muscular, he is warranted in expecting some extraordinary feats. We are tempted just here to urge that the tournament be attended by all the vast multitude of gentlemen who earn their subsistence by the sweat of their brow, it is true, but still in a vocation not always recognized as legitimate by society and which frequently brings them into personal intercourse with the police. We are confident that it would be of fascinating interest for them to witness the displays of running, wrestling, boxing and other accomplishments. But then we refrain from our proposed suggestions, for these gentry never read *FOREST AND STREAM*. We, however, trust that there may be a full attendance of all lovers of genuine athletic sport next Monday evening.

QUEEN'S COUNTY HUNT.—There was a special meet of the Hunt at Garden City New Years Day. The ground was hard and frosty and properly there should have been no hunt, but twenty ladies and gentlemen were on hand with poor Reynard, who had been brought in a bag on the train with the hunters. There was a long drag chase before the fox was turned out. When those in charge of the drag had reached East Meadow Brook, and the field had become pretty well thinned out, Reynard was set free in a field where he lay down and sullenly waited for the hounds to come up. The chase was ingloriously terminated when the leading huntsman came up to where the men in charge were warding off the hounds, and despatched the cowering creature by knocking him on the head.

## New Publications.

LOVE AND DUTY. By Mrs. Hubbaok. Philadelphia: T. B. Peterson & Bros. Price \$1. This is the twelfth volume of the "Dollar Series." Love and Duty are interwoven through the pages in a natural and effective style keeping up the interest of the reader to the end.

THE AMERICAN CRICKETER.—This little paper is devoted to the game of cricket and the interests of cricket players. It is filled with a variety of matter, and appears each month. In the cricket season it becomes a weekly.

HOW THE ANAONDA EVADES THE LAW.—Probably few passengers on one of the Jersey City ferry boats the other day were aware that that quiet man had an anaconda in his carpet-bag. But that's exactly what was there. The great Aquarium constrictor refuses to eat any food which she has not killed herself. But Mr. Bergh decrees that she shall not be fed on live animals. So when the time comes for her meal her keeper puts her in his bag, takes her over to Jersey, gives her a square meal of live rabbits and doves, and brings her back to her Aquarium case.

THE GELADA.—Several living specimens of this extremely rare Abyssinian monkey, first described by Dr. Ruppell in 1835, have quite recently reached this country for the first time, and are being exhibited at the Alexandra Park. The exact affinities of the species have never been fully determined, different biologists placing it, some with the Macaques, others with the baboons. It is peculiar in that the male is covered with very lengthy hair, like that of the waderoo, whilst the female is a much more ordinary looking

monkey. In the male also there is a bare spot, in shape like an inverted T, upon the breast, which is of a bright pink color, becoming red and expanded into an inverted heart-shaped patch upon excitement. The tail is long and like that of a lion, having a bushy tuft at the extremity. The color is a sooty, dark-gray brown, verging upon black; the hands and feet are black; the nails are powerful and long. The size of the male is about that of a chimpanzee four years old; the eyes are close together and the snout prolonged. The living animal has a habit of everting the whole upper lip when irritated, and thus exposing its formidable array of teeth.—*Nature*.

A FAITHFUL DOG'S REWARD.—The *Jefferson (Mo.) Tribune* says: "A gentleman who lives in Vernon county tells a remarkable story of the sagacity of a dog which accompanied him on his travels. While in the Short Creek timber, on his way to Joplin, the dog jumped and caught the horse by the bridle rein. Mr. Ewing drove the animal off, but it persisted in catching the horse by the reins, until the gentleman concluded it must be mad. Under the impulse of the moment he pulled his revolver and shot the animal, which then ran back along the road over which he had come. In a few minutes Mr. Ewing missed his overcoat, which had been tied to the saddle. He turned back to find it, and after riding about a mile, not only found his coat, but his faithful dog, which was lying on the garment dead."

AN ORIGINAL SUICIDER.—The suicidal mania assumes strange forms. Here is one of the latest methods:

In Placerville last Sunday a young German named Obarley Roth committed a dreadful suicide. Procuring a giant powder cartridge and two feet of fuse, he retired to his sleeping apartment. In a minute or two a loud and sharp explosion was distinctly heard several blocks away, and when people from the street hurried into the room they found him lying on the pallet entirely headless, an immense cavern hollowed out of the upper part of his chest, and his teeth and fragments of his skull scattered in every direction. From the middle of the neck upward all was blown to atoms, not a vestige of his head or face remaining. The presumption is that he lay down upon his pallet, took the end of his cartridge into his mouth, connected the fuse with the cap, lit it, and deliberately awaited the explosion.—*Neveda Territorial Enterprise*.

—It has recently been discovered in France that wine may be injured through the glass of the bottles in which it is contained being too alkaline. According to analyses given by the *Revue Industrielle*, glass for wine bottles should yield per 100 parts: silic, 53.4; potash or soda, 11.7; lime, 18.6; clay and oxide of iron, 11; other ingredients, 0.8. Glass in bad bottles has been found to contain: silic, 52.4; potash or soda, 4.4; lime, 32.1; clay and iron, 11.1. The wine suffers principally from excess of lime. Thus, in glass composed of silic, 45; soda, 15; lime, 30; and clay, 15; for example, the wine became thick, and lost its aroma. The best bottle glass contains from 18 to 20 parts of lime, and 59 to 60 silic; the worst, 50 to 52 silic, and 25 to 30 lime.

AN ANECDOTE OF DANIEL WEBSTER.—Webster was out one day on the marshes near Marshfield, busily shooting birds. It was a hot afternoon in August. The farmers were getting in their salt hay on the marshes.

He came, in the course of his rambles, to the Green Harbor River, which he wished to cross. He beckoned to one of the men on the opposite bank to take him over in his boat, which lay moored in sight. The man at once left his work, came over, and paddled Mr. Webster across the stream. He declined the payment offered him, but lingered a moment with Yankee curiosity to question the stranger. He surmised who Mr. Webster was, and with some hesitation remarked:

"This is Mr. Webster, I believe."  
"That is my name," replied the sportsman.  
"Well, now," said the farmer, "I am told that you can make from three to five dollars a day pleadin' cases up in Boston."

Mr. Webster replied that he was sometimes so fortunate as to receive that amount for his services.

"Well, now," replied the rustic, "it seems to me, I declare, if I could get as much in the city pleadin' law cases, I would not be a wadin' over these marshes in hot weather shootin' little birds!"

THE S. F. P. C. A.—Since the 1st of January, 1877, the Society for the Prevention of Cruelty to Animals has prosecuted 525 cases of cruelty in New York and Brooklyn. Of these, 487 resulted in the conviction and punishment of the offenders. Special agents, or street patrol, turned out of harness 1,961 horses that were lame and sick. The agents humanely destroyed 1,202 horses, and 480 small animals.

—How to make a catfish—Leave her alone in a room with an aquarium.

MESSRS. TIFFANY & CO., UNION SQUARE, NEW YORK City, have made extensive preparations for the approaching HOLIDAYS.

Their Stock of Diamonds, Watches, Jewelry, Silverware, Bronzes, Pottery, Stationery and Fancy Articles, is the largest and most varied in this country, and includes novelties from abroad and choice goods of their own manufacture, not to be found elsewhere.

A special department has been organized for sending goods to persons at a distance from New York, and any one known to the house, or naming satisfactory references, can have careful selections sent for inspection.

They have lately published a little pamphlet containing a condensed account of each department, and lists of articles appropriate for presents, which they will send to any address on request.

## Piper Heidsieck AND PIPER "SEC."



For Sale Everywhere.

JOHN OSBORN, SON & CO.,  
45 Beaver street, New York,  
and  
44 St. Sacramento street, Montreal,  
GENERAL AGENTS.

Oct 11

ESTABLISHED 1820.

## C. G. Gunther's Sons,

(LATE 502-504 BROADWAY.)

184 Fifth Avenue,

(Broadway and 23d St.)

NEW YORK.

SEAL-SKIN SACQUES AND WRAPS,  
FUR-LINED CIRCULARS AND CLOAKS,  
FUR ROBES, MATS, COLLARS & GLOVES.

ALL IN LARGE ASSORTMENTS AND AT  
LOW PRICES.

N. B.—Orders by mail or information desired will receive special and prompt attention. Dec 18 77



# NICHOLS & LEFEVER,

SYRACUSE, N. Y.,

MANUFACTURERS OF

## DOUBLE AND SINGLE-BARREL BREECH-LOADING SHOT-GUNS

Double-Barrel Breech-Loading Rifles, and Shot and Rifle combined. Muzzle-Loading Creedmoor guaranteed to be the best, and not to give "UNACCOUNTABLE MISSES."

Our Catalogue for 1878 will be ready January 15, giving full description of gun, recent improvements in same, matters of general interest to Sportsmen, etc., etc.

## ACME CLUB SKATE.



The only reliable Self-Fastening Skate ever invented. Can be instantly and firmly attached to any boot. Requires no heel-plates, straps, nor key. Price per pair \$9. Nickel Plated \$6. Sent by Mail, post-paid, on receipt of price, or, by Express C. O. D. Send stamp for illustrated price-list of Skates, Revolvers, Novelties and other Sportsmen's Goods. Trade supplied by

Mention FOREST AND STREAM. FISH & SIMPSON, 132 Nassau street, N. Y.

## THE UNITED STATES CARTRIDGE COMPANY,

LOWELL, MASS.

Manufacturers of the

CENTRAL FIRE, SOLID HEAD,  
BRASS SHELL, RE-LOADING CARTRIDGE,

Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.

## Sportsmen, Attention!



### Keep Your Feet Dry.

The only premium awarded by the Centennial Commission, Philadelphia, 1876, for Alligator Waterproof Boots and Shoes.

Goods sent to all parts of the U. S.,  
C. O. D.

Catalogues containing full instructions for self-measurement sent free on application.

503 Broadway, New York.

## NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

MADE OF BROWN VELVETEEN.

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$6.50. Also the best brown corduroy pants at \$10 per pair. Make only the one grade, as the cheapest goods do not turn briars and will not give satisfaction.

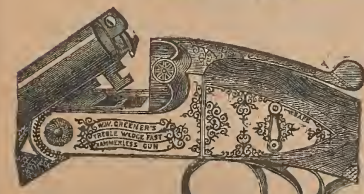
Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is the Best Yet. Coat, \$35.00. For full Suit, \$14.00. I also make the Sleeveless Coat; Vest with sleeves if desired. Rules for measurement and samples sent upon application.

F. L. SHELDON, Rahway, N. J.

For Sale by Dealers in GUNS and SPORTSMEN'S SUPPLIES.

## W. W. Greener's Patent Wedge Fast, Hammerless Breech-Loader.

### THE GUN OF THE FUTURE.



Address,

ST. MARY'S WORKS, Birmingham and 68 Haymarket, London.

FOR SALE, when eight weeks old, six puppies out of my blue belton setter Mell, by Bob Boy. They are black and white. Two of them are black, white and tan, and are almost perfect immages of their sire. For particulars, address L. F. WHITMAN, 5 City Hall, Detroit, Mich. 1228 tf

FOR SALE—One setter dog pup, seven months old, very large and fine; two red Irish bitch pups, six months old, will be sold for \$10 each, I akan soon. Address D. G. WEBSTER, Parks Cor'ers, Ill. 131

## DOGS.

DOCTOR HENRY GARDNER, No. 146 West Thirtieth street, New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ag 2t

FOR YOUNG COCKER SPANIEL STOCK from the choicest breeds. Inquire of M. P. MCKOON, Franklin, Del. Co., N. Y. 13123-ly

## The Kennel.

### ST. LOUIS BENCH SHOW

AND  
SPORTSMEN'S ASSOCIATION,  
St. Louis, Mo.

The first annual Bench Show and Exhibition of the above Association will be held in St. Louis, Mo.

February 19th, 20th, 21st and 22d, 1878.

Cash prizes, paid in full..... \$3,000  
Special prizes, value..... \$2,000

Cash prizes for Kennels of English, Irish and Gordon Setters and Pointers, \$100 each.  
All Setters and Pointers have 1st, 2d and 3d prizes, cash, in open classes, \$50, \$20 and \$10.  
All Setters and Pointers in free-for-all classes have cash prizes of \$50 each.

Officers of the Association—President, E. Hayden, Manager American Express Co.; Vice-President, Jos. A. Wherry, Wholesale Boots and Shoes; Secretary, John W. Munson; Treasurer, H. S. Brown, of Brown & Hilder, gun dealers.

Directors.—E. O. Sterling, President Hydraulic Press Brick Co.; C. Jeff. Clark, of Clark & Kennett, metal dealers; W. L. Scott, Secretary of Belcher's Sugar Refinery.

For catalogues and information address JOHN W. MUNSON, Secretary, St. Louis, Mo. Nov29 tf

## EDINA KENNEL.

JESSE SHERWOOD, PROPRIETOR, Edina, Knox County, Mo., breeder and importer of Sporting Dogs. Pointers, setters, spaniels, fox and beagle hounds. "Sancho," Imp. Pointer, stud dog; fee, \$35. See English K. C. S. B., No. 1,005. He is a grandson of the celebrated "Hamlet," No. 836. This dog "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874, three here.

## BALLARD'S FLEA KILLER!

FOR THE  
DESTRUCTION OF FLEAS  
On Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.

NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.

Price 50 Cents per Package.

Will be sent postage paid on receipt of price. Proprietors,

LAZELL, MARSH & GARDINER,  
1719 tf 10 GOLD STREET, NEW YORK.

## SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped.

F. O. de LUZE,

18 South William Street, N. Y., sole Agent.

For sale in cases of 112 lbs. Special terms to dealers.

## Fleas! Fleas! Worms! Worms!

### STEADMAN'S FLEA POWDER FOR DOGS.

A Bane to Fleas—A Boon to Dogs.

This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.

Price 50 cents by mail, Postpaid

## ARCA NUT FOR WORMS IN DOGS

A CERTAIN REMEDY.

Put up in boxes containing a dozen powders, with full directions for use.

Price 50 cents per Box by mail.

Both the above are recommended by ROY AND GUN and FOREST AND STREAM.

W. HOLBERTON.

102 NASSAU STREET.

FOR Irish and native setters, dogs and bitches of all ages, broken and unbroken, address E. J. ROBBINS, Wethersfield, Conn. Oct2

## The Kennel.

FULL-BLOODED—Two Irish setter bitches, four months. Sire of pups, Don, imported from J. C. Cooper, of Limerick, Ireland, by C. H. Turner, Sec. Nat. Kennel Club, St. Louis, Mo.; dam, Countess, by Rodman's Dash. One Gordon bitch, eighteen months old; hunted this fall; staunch on quail and very fast, with good nose; will make a good one. One Gordon bitch eight months old. Full pedigree given with pups. H. B. VONDERSMITH, Lancaster, Pa. Nov29 tf

FOR SALE—A well broken pointer dog of good stock and pedigree. Also, some finely bred pointer pups, six months old. Address immediately, JOHN TOMKINS, Kennebunk, Me. 13 3t

FOR SALE—A well broken setter dog, two years old, Blue Section; is fast, staunch and a good retriever. Also, a black and tan Gordon setter puppy, seven months old; has premium blood on both sides; no better stock in the country. The above dogs will be sold cheap. Address "SETTER," P. O. box 468, Baltimore, Md. 13 1t

FOR SALE—My red Irish bitch "Beas," by Salter's celebrated "Dash," out of Strachan's Imp. "Belt." "Beas" whelped thirty-five puppies in three litters, and is a splendid field dog on woodcock, quail and snipe. Will sell "Beas" in whelp to Imp. "York," if desired. Also, a pair of pups, four months old, by "York," out of "Beas." Address F. A. DIFFENDERFFER, Lancaster, Pa. 13 8t

## For Sale.

FOR SALE, CHEAP—Two first-class breech-loading shot-guns, 10 and 12-gauge; been used but little, and all as good as new; sold only as I have no time to use them. Address JOHN TOMKINS, Kennebunk, Me. 13 3t

SECOND-HAND—A very fine Tolley breech loader, with two sets of barrels fitted to same stock; one pair 10 bore Danussens and very close shooting, other pair laminated steel and cylinder bore; weight, 9 lbs. and 2 1/2 lbs. This gun was made to order for the owner, and is very superior in every respect. Can be examined at gun store of HENRY C. SQUIRES, 1 Cortlandt street, N. Y. Nov1 tf

FOR SALE—An entirely new "Express" shot-gun, 12-gauge, made to order by J. D. Donnell, 57 St. James street, London. For details, address P. O. Box 787 Hartford, Conn. Dec13 4t

FOR SALE—One Sharps rifle, Creedmoor pattern, and one Nichols & Lefever sporting rifle; both in the order and nearly new. Address C. H. FOUTE, Port Henry, N. Y. Dec20 5t

CITY AND COUNTRY PROPERTY bought, sold and exchanged. C. S. PECK, 8 West Twenty-fifth street, New York Sept27 1y

## Hotels and Resorts for Sportsmen.

### HALSEY HOUSE,

ATLANTICVILLE, LONG ISLAND,

is nearer New York City than any horse boarding on Shinnecock Bay. Is as near, and has as good shooting grounds, and as experienced attendants (with live geese and other decoys, batteries, etc., always on hand), nearer the station, the largest and the best kept house in the bay. L. I. R. R. to Atlanticville Station, Fare, \$2. Stage meets all trains. W. F. HALSEY, Owner and Proprietor. Atlanticville, L. I., Oct. 20, 1877. Oct25

## Metropolitan Hotel,

WASHINGTON, D. C.

## Carrollton Hotel,

BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.

THE METROPOLITAN is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and re-furnished throughout. The cuisine is perfect; the service regular, and charges moderate.

R. B. COLEMAN & CO.

## Wild Fowl Shooting.

SHRINEVILLE HOUSE OR SPORTSMEN'S RESORT, SHINNECOCK BAY, L. I.

By a practical gunner and an old bayman. Has always on hand the best of boats, batteries, etc., with the largest rig of trained wild-geese decoys on the coast. Special attention given by himself to his guests, and satisfaction guaranteed. Address WM. N. LANE, Good Ground, L. I. Nov5 tf

## UNION SQUARE HOTEL,

UNION SQUARE, Corner 15th Street, New York.

A. J. DAM & SONS, Proprietors.

E. THOMAS, JR.,  
GUNS, PISTOLS, SPORTING GOODS,  
174 South Clark Street, Chicago, Ill.

Gunpowder.

Warren Powder Mills,

MANUFACTURERS OF

BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS—Bureka, Continental Border Rifle, Snap-Shot, and Warren Sporting Cannon and Musket, U.S. Standard. The above can be had of the dealers, or at wholesale at the office, 27 Dorset street, Boston, Mass., and of the agents, JOHN P. LOVELL & SONS, corner of Washington, Cornhill and Brattle streets, Boston, Mass. 1 JY19

ORIENTAL POWDER MILLS MANUFACTURERS OF ALL KINDS OF GUNPOWDER

Office—13 BROAD STREET, BOSTON.

BRANDS—DIAMOND GRAIN. FALCON DUCKING. WILD FOWL SHOOTING. WESTERN SPORTING. (Oriental Rifle.)

The "Oriental" powder is equal to any made; no expense is spared to make the best.

AGENTS OFFICES.

J. G. Munro, Branch, 19 Exchange St., Buffalo, N. Y. Cobb & Wheeler, Agents, 9 State St., Chicago, Ill. C. J. Chapin, Agent, 215 Locust St., St. Louis, Mo. Agencies in the principal cities in the United States.

THE HAZARD POWDER CO. MANUFACTURERS OF GUNPOWDER.

Hazard's "Electric Powder."

Nos. 1 (fine) to 6 (coarse). Unpacked in point of strength and cleanliness. Packed in square canisters of 1 lb. only.

Hazard's "American Sporting."

Nos. 1 (fine) to 6 (coarse). In 1 lb. canisters and 6 1/2 lb. kegs. A fine grain, quick and clean, for upland partridge shooting. Well adapted to shot-guns.

Hazard's "Duck Shooting."

Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzle or breech-loaders.

Hazard's "Kentucky Rifle."

FFG, and "Sea Shooting" FFG, in kegs of 25, 50 and 60 lbs., and cans of 5 lbs. FFG is also packed in 1 and 2 lb. cans. Burns strong and sweet. The FFG and FFG are favorite brands for ordinary sporting, and the "Sea Shooting" FFG is the standard rifle powder of the country.

Superior Mining and Blasting Powder. GOVERNMENT CANNON & MUSKET POWDER; ALSO, SPECIAL GRADES FOR EXPORT OF ANY REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER.

The above can be had of dealers, or of the Company's Agents in every prominent city, or wholesale at our office,

88 WALL STREET, NEW YORK.

GUNPOWDER

DEAD SHOT, NE PLUS ULTRA, TELEGRAPH, DUCK SHOOTING.

The above celebrated Brands are manufactured by the

AMERICAN POWDER CO., 233 State Street, Boston.

GENERAL WESTERN AGENTS

E. B. RAMBO, Chicago, Ill. F. G. GODDARD, St. Louis, Mo. M. BARE & Co., Cincinnati, O.

English Sporting Gunpowder. CURTIS & HARVEY'S DIAMOND GRAIN.

Nos. 2, 3, 4, 5, 6, 7 and 8. Superior Rifle, Entfield Rifle, and Col. Hawker's Ducking. W. STITT, 51 Cedar street, N. Y. Agent for the United States.

N. Y. Newspaper Mailing Agency

With the latest Improved Newspaper Folding and Mailing Machines, No. 13 Spruce street. JAMES BRADY, Manager and Proprietor.

Sportsmen's Goods.

BOSTON

SHOOTING SUIT.

Manufactured only by

W. SIMMONS & SON,

BOSTON.

Each article—coat, trousers, vest and hat—have the name and manufacturer's address stamped upon it, and no suit is genuine without it bears this imprint.

The suit can be sent, securely packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit.

We make no discount except to the trade. We make but one quality, and that is the VERY BEST. The price of the suit complete is \$13.

The suit consists of coat, trousers, vest, and choice of either cap with havelock, or hat.

The material is of the best quality of duck, waterproofed by a patent process. The color is that known as "dead grass shade."

The seams and pocket corners are riveted, and nothing is neglected to make the whole suit complete in every way.

OUR PATENT DECOYS

have entirely superseded the old-fashioned cumbersome, wooden decoys. The birds are hollow, and six of them occupy about the space of one wooden decoy. The Duck Decoys of all kinds are \$12 per dozen: geese, \$3 each; yellow leg, \$4.25 per dozen; black breast plover, \$3.75 per dozen; red breast plover, \$3.75 per dozen; goen plover, \$3.75 per dozen; turnstone, chicken plover, etc., \$3.75 per dozen; sandpipers, \$3.50 per dozen. We are now making standing geese for field shooting.

THE HUNTER'S TENT

made of tan-colored duck; light, easily transported. Size, 7 ft. by 8 ft. Price, \$10 complete, made on the umbrella principle, folding into a neat roll 3 feet long.

In the judges' report at Philadelphia they were commended for excellence in every part. Very novel and practical; adapted to all out-of-door purposes where lawn, beach, hunters and camp tents are used; quick folding; all sides strongly fortified; enables them to stand against wind and rain. Rev. F. B. Savago, of Albany, N. Y., who camps out in Florida in winter, and the Adirondacks in summer, writes this about the tent:

ALBANY, July 31, 1877.

SIR—I have just returned from a three-weeks' camping expedition in the Adirondacks, and have had the three tents bought of you put to the severest tests of exposure both as to wind and storm, and I do most unhesitatingly say they are the most complete thing of the kind I ever used.

- 1st. They are easily put up or taken down.
2d. They are perfectly waterproof.
3d. They are a good height, and all the room I available.

One party asked for no better. They were admired by all who saw them, and one party insisted on buying one of ours that was to spare. Rev. Dr. Duryea, of Brooklyn, and the Rev. Dr. Irwin, of Troy, both endorse what I say about your tent. With kind regards, yours truly, F. B. SAVAGE.

Tan-Colored Leather Pliable Waterproof Suits.

Shooting Coats, Jackets, Breeches, Vests and Hats at following prices: Coats, \$22; Breeches, \$15; Jackets, \$18; Vests, \$12. These form the most elegant shooting equipment known. They are indestructible.

A recent notice in the FOREST AND STREAM from a correspondent, says:

Whenever a sportsman, or even one who does not claim the distinction, finds a really good and useful article, it is no more than fair that he should let others have the benefit of his knowledge. For this reason we would call attention to the Tan-colored Leather Shooting or Fishing Suits, made by G. W. SIMMONS & SON, of Boston, Mass., the manufacturers of the famous "Boston Shooting Suit."

I saw these goods advertised in your paper, and wrote to the parties for samples. I found the material as soft and pliable as a piece of kid. I tested it by soaking in water twelve hours, and found it as nearly waterproof as one could desire, and after drying was happily surprised to find it had not stiffened in the least. I have since then received a full suit—coat, vest and breeches—ordered by letter from measure taken by myself.

The goods are splendidly made, well lined with flannel; in fact I do not see how they can be improved.

My friends are unanimous in their verdict that G. W. Simmons & Son's leather goods cannot be excelled in quality or beaten in price.

For every kind of sportsmen's goods address

G. W. SIMMONS & SON, Oak Hall, Boston, Mass.

FURS.

F. BOSS & BROTHER.

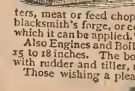
ESTABLISHED 1853.

THE ONLY FUR HOUSE in this city who received at the Centennial Exhibition the HIGHEST AWARD AND DIPLOMA for SEAL SACQUES, FANCY FURS, ROBES, Etc. Our prices this season are 25 PER CENT. LOWER THAN LAST YEAR'S.

449 Broadway and 26 Mercer St., New York. Dec 4

ESTABLISHED IN 1837.

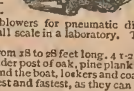
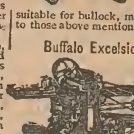
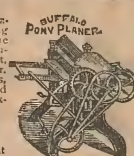
Consult your interest by sending for our revised and reduced prices.



Excelsior Latest Improvement. Double treadle, including one double-duty imitative Prent Saving Pattern and prepared Wood, to the value of \$4. A new device for tightening Saw, Power Drilling attachment, Wrench, Oil Cup and Screw Driver. Speed, 800 strokes per minute. Saws, 1 1/2 inch thick. Price, complete, cast and delivered on board cars at Express office, \$2. Saw only, without attachments, \$9.

SMALL STEAM ENGINES. With Copper Boiler, to drive light Lathes, Scroll Saws, etc. Are all sizes from 2 1/2 up to a horse power; either plain castings, partly finished, or complete, ready for use.

The "Scientific American" of June 29, 1876, says of the above, in an extended Editorial, introducing our manufacturers to the public: "It can turn writers, chums, washing machines, or ice cream freezers, run coffee mills, pump water through a house, accurate foot lathes, run knitting or sewing machines, turn a grindstone or emery wheel, work ventilating or hand threshing machine cutters, meat or feed choppers, or sausage machines, drive small blowers for pneumatic dispatch tubes in a building, or for a blacksmith's forge, or compress air or work an air pump on a small scale in a laboratory. These are a few only of the purposes to which it can be applied."



Nearly One Thousand in Use. Buffalo Pony Planer. Will cut it self and pay expense of running in 2 days. Price from \$50 and upwards, each.

LIGHT MACHINES FOR PONY OR HORSE POWER. The great success of these machines is unprecedented, and it may be confidently affirmed that no article has ever more clearly proved its superiority for the quantity and quality of its work than this. It is made in several sizes, and can be fitted to those above mentioned.

Patented March 30, 1875.

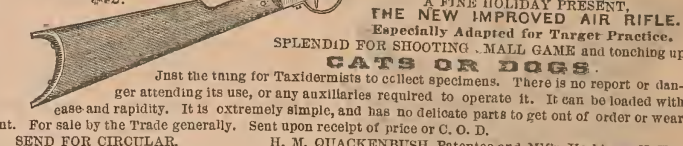
Best of its kind in use. Price, complete, \$25. Also Planing Machines, Knives, which are recommended as superior and extra in quality.



water for exploring expeditions and surveying parties. The Engine and Boiler can be easily detached from the boat, and is then for running light machinery. Price of 20 foot boat, complete. Price of Engine and Boiler, without boat, including driving pulley, \$425.00 \$75.00

Illustrated Catalogue containing One Hundred Scroll Work Designs mailed to any address free on receipt of Stamp. GEORGE FARR, BUFFALO, N. Y., U. S. A.

PRICE, BOXED, WITH DARTS, SLUGS, TARGETS, &c., \$10. FULL NICKEL PLATE \$12.



SEND FOR CIRCULAR.

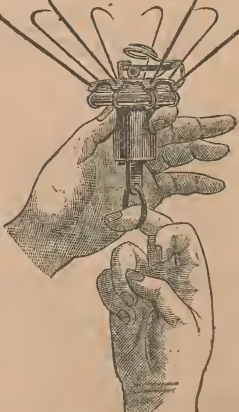
Hart's Sportsman's Favorite Metallic Shells. FOR BREECH-LOADING SHOT-GUNS.

These Shells are easily loaded, and the caps easily extracted from inside. Head solid and much thicker than any Shell now made, giving a solid seat, for cone or anvil, which prevents the driving through or springing a way, thereby causing mis-fires. The Cone is made of nickel, and fastened solid in its place. Neither rusts nor corrodes fast, like movable anvils made from steel. The Nickel Cone also prevents mis-fire when a cap has been left on shell for a few days, which is liable to occur either in steel or iron. These Shells are finely finished, and made any length ordered, from 2 1/2 to 3 3/4 inches.

Shells and Loaders and Descriptive Price-Lists can be obtained from all the leading Sportsmen's Houses throughout the country.

FROM CAPTAIN BOGARDUS, CHAMPION WING-SHOT OF AMERICA. MESSRS. GEORGE B. HART & CO.—Gentlemen: The fifty Shells I received from you to-day suit me better than any I have ever used. They are stronger and better in every respect, and I shall use them in all my shooting hereafter. Yours truly, A. H. BOGARDUS.

A VICTORIOUS INVENTION The Eagle Claw.



An ingenious device for the purpose of catching all kinds of Animals, Fish and Game.

The easy method of setting the Eagle Claw, combined with the simplicity of removing the victim, are among its peculiar advantages.

It is immaterial how to place it when set. It may be buried flat in the ground, suspended from the limb of a tree, or, when occasion requires, covered with grass, leaves or other light material without in any way impairing its certain operation.

It is adapted for bait of any description, and, when set, no animal, fish or bird that touches the bait can possibly escape.

It does not mangle or injure its victims in the slightest degree, nor need they be handled to free them from the trap.

PRICE LIST.

- No. 1—For fishing and all kinds of small game and animals, sent by mail, 35 cents.
No. 2—For catching Mink, Muskrats, Beavers, Large Game, Fish, etc., 75 cents.
No. 3, or Rocky Mountain Giant, for catching Bears, Wolves, Panthers, etc. Can be easily set by a boy, and will stand a strain of several hundred pounds. Weight, 10 to 15 lbs., \$10.
All goods sent, charges paid, to any address on receipt of price. Address

Stent & Co., Mfr's. Agents, 132 Nassau St., NEW YORK. P. O. box 2997.

AGENTS WANTED.

SHARPS' RIFLES---MODEL 1878.

ORDERS FOR THE NEW MILITARY AND LONG-RANGE RIFLE ARE NOW BEING FILLED. SEND FOR ILLUSTRATED PRICE LIST. Sharps' Rifle Co., Bridgeport, Conn. NEW YORK WAREROOMS, 177 BROADWAY.

Publications.

LONG-RANGE RIFLE SHOOTING.

A Complete History of the International Long-Range Matches, 1873-1877—Complete Elcho Shield Scores—Rules and Regulations of the N. E. A. Etc., Etc.

FULLY ILLUSTRATED

BY THE RIFLE EDITOR OF THE "FOREST AND STREAM AND ROD AND GUN."

Price 25 cents.

NEW YORK.

Published by the Forest and Stream Pub. Co. 1877.

Bound Volumes

Forest and Stream.

EIGHTH VOLUME, NOW READY.

First Four Volumes, \$4 each, Others, \$3.50.

A complete set of the FOREST AND STREAM—seven volumes, bound handsomely in cloth—a valuable library for the sportsman—can now be obtained on application to this office.

BINDERS.

Get your fine books bound. Art Journal bound uniform to London publishers' style. Picturesque America, Art Treasury of Germany and England, Women in Sacred History, Large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done in two or three days if required.

E. WALKER'S SONS, 14 Day street.

Camp Life in Florida.

BY CHARLES HALLOCK,

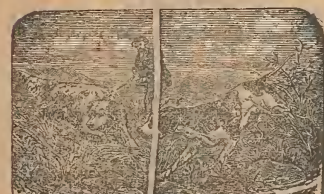
AUTHOR OF THE FISHING TOURIST.

Published by Forest and Stream Publishing Co.,

No. 111 FULTON STREET, NEW YORK,

And for sale by all booksellers. Sent by mail, postage prepaid, on receipt of price (\$1.50) at office of publication.

FRANK SCHLEY'S AMERICAN



Partridge & Pheasant Shooting.

Describing the Habits, Habits, and Methods of Hunting and Shooting the American Partridge—Quail, Ruffed Grouse—Pheasants, with directions for handling the gun, hunting the dog, and shooting on the wing. Price, \$2. Liberal discount to the trade.

To be had at book stores generally. Address, Frank Schley, Frederick City, Md.

KNOW THYSELF... A new Medical treatise, "The Science of Life, or Self-Preservation, a book for everybody. Price \$1, sent by mail. Fifty original prescriptions, either one of which is worth ten times the price of the book. Gold medal awarded the author. The Boston Herald says: "The Science of Life is, beyond all comparison, the most extraordinary work on Physiology ever published." An Illustrated Pamphlet sent free. Address DR. W. H. PARKER, No. 4 Bulfinch Street, Boston, Mass. Oct 31

The Southern Guide.

A finely illustrated quarterly periodical, exhibiting the characteristics and resources of the Southern States. One dollar a year; single copies, 25 cents. Published by

BRAMHALL & CO., Washington, D. C. 1869-70

POULTRY WORLD—A splendidly illustrated monthly, \$1.25 a year. Send 10 cents for a specimen copy. Address POULTRY WORLD, Hartford, Conn. Dec 17th

Publications.

Sportsman's Gazetteer

AND GENERAL GUIDE,

By CHARLES HALLOCK,

Editor "Forest and Stream and Rod and Gun,"

896 pp., Price \$3.

Tinted Paper, \$4; half-bound mo., \$5.

A complete Dictionary for Sportsmen. Everybody wants it that has a dog, gun or fishing rod. A complete description of all kinds of Game, Fish, etc. Field sports, Woodcraft, Angling, Fly Fishing, Dogs, Dog Breeding, Diseases and Treatment, Boating and Boat-building.

Several thousand localities where game and fish are to be found. Nothing of the kind ever before published worth ten times the price.

PUBLISHED BY

FOREST & STREAM PUBLISHING CO.

111 Fulton street, New York.

KANSAS.

All about its Soil, Climate, Resources, Products, Laws, and its People are given in the "Kansas Farmer," a 10-page Weekly, in its fifteenth year. Postpaid, three months, 50 cents. Address

J. K. HUDSON, Topeka, Kansas.

Has quickly taken a high place among agricultural journals of the States. We have considered it among the best of our exchanges, and a worthy representative of the West. Practical Farmer, Philadelphia. Our Kansas friends should feel much pride in the high character and sterling worth of their State agricultural paper.—National Live-Stock Journal. We cheerfully credit it with being one of the best edited of our Western agricultural exchanges.—Spirit of the Times, N. Y. 1844

Sportsmen's Routes.

STONINGTON LINE.

FOR BOSTON AND ALL POINTS EAST. REDUCED FARE: Elegant Steamers STONINGTON and NARRAGANSETT leave Pier 33 North River, foot Jay St. at 5:00 P.M. NOT A TRIP MISSED IN SEVEN YEARS.

Tickets for sale at all principal ticket offices. State rooms secured at offices of Westcott Express Company, and at 325 Broadway, New York, and 333 Washington St., Brooklyn.

PROVIDENCE LINE.

Freight-only, steamers leave Pier 37, North River, foot Park Place, at 4:30 P.M. Freight via either line taken at lowest rates. L. W. FIKINS, G. P. Agent, D. S. BABCOCK, Pres.

FOR FLORIDA

FOR THROUGH TICKETS TO FERNANDINA JACKSONVILLE, ST. AUGUSTINE, SANFORD, ENTERPRISE, and intermediate landings on ST. JOHN'S RIVER and interior points in FLORIDA, by steamship to SAVANNAH, and thence, by railroad or steambat, apply to WML L. JAMES, General Agent.

Philadelphia and Southern Mail S. S. Co., Pier 22 South Delaware Avenue, Phila.

Dec 1-ly

"The Bermudas."

NOW A FAVORITE AND DELIGHTFUL WINTER RESORT, is reached in seventy hours from New York, and being surrounded by the warm waters of the Gulf Stream enjoys an equable temperature of about 70 deg. The elegant British Steamships "Bermuda," and "Camina," 1,600 tons, fitted expressly for the passenger travel, are dispatched from New York for Bermuda fortnightly, making connection at Bermuda with steamers for St. Thomas and West Indies. For full information apply to A. E. OUTERBRIDGE, Agent, 29 Broadway, N. Y. Dec 21 ly.

St. Paul and St. Louis Short Line.

Burlington, C. Rapids & N'rth'n Railway.

QUICKEST, CHEAPEST AND BEST!

TWO PASSENGER TRAINS EACH WAY DAILY, crossing and connecting with all East and West Lines in Iowa, running through some of the finest hunting grounds in the Northwest for Game, Ducks, Pinnated and Ruffed Grouse and Quail. Sportsmen and their dogs taken good care of. Reduced rates on parties of ten or more upon application to General Ticket Office, Cedar Rapids. G. J. IVES, G. P. WINSLOW, Gen. Manager, Gen. Passenger Agent.

Sportsmen's Routes.

REDUCTION OF FARE.

\$3 NEW YORK TO BOSTON VIA THE FALL RIVER LINE

To Boston and Return, \$5.

Magnificent Steamers NEWPORT and OLD COLONY leave New York daily (Sundays excepted) at 4:30 P. M. This is the only Sound Line giving passage on FULL NIGHT'S REST. Passengers take any one of the FIVE MORNING TRAINS from Fall River to Boston.

BORDEN & LOVELL, GEO. L. CONNOR, Agents, General Pass Agent.

NEW YORK AND PHILADELPHIA NEW LINE BOUND BROOK ROUTE.

FOR TRENTON AND PHILADELPHIA. COMMENCING NOVEMBER 26, 1877. STATION IN NEW YORK—Foot of Liberty St. N. Y. Leave New York for Trenton and Philadelphia at 6:30, 8, 9:30, 11:30 A. M., 1:30, 3:30, 5:30, 12 P. M., and at 4 P. M. for Trenton. Leave Philadelphia from station North Pennsylvania Railroad, Third and Berks streets, at 7:30, 9:30, 11:30 A. M., 1:30, 3:30, 5:30, 12 P. M. Leave Trenton for New York at 1:20, 3:35, 5:05, 10:20 A. M., 12:15, 2:15, 4:10, 6:15 P. M. Pullman Drawing Room cars are attached to the 9:30 A. M., 3:30, P. M. trains from New York and to the 7:30 A. M., 1:30 P. M. trains from Philadelphia. SUNDAY TRAINS—Leave New York and Philadelphia at 9:30 A. M., 5:30, 12 P. M. Leave Trenton at 10:20 A. M., 6:10 P. M.

Tickets for sale at foot of Liberty street, Nos. 529 and 844 Broadway, at the principal hotels, all offices of the Erie Railway in New York and Brooklyn, and at No. 4 Court street, Brooklyn. Baggage checked from residence to destination. Sept 13 ly H. P. BALDWIN, Gen. Pass. Agent

GREAT SOUTHERN Freight & Pass'nger Line,

VIA Charleston S. C. The South and the Southwest

AND THE FLORIDA PORTS, Wednesday and Saturday At 3 o'clock P. M. From Pier 27, N. R.

CITY OF ATLANTA, CHARLESTON, Capt. M. S. Woodhull, Capt. R. W. Lockwood. SANTIAGO DE CUBA, G. W. CLYDE, Capt. S. Crowell. Capt. Ingraham.

The above steamers have been handsomely fitted up for the convenience of passengers, and are unrivalled on the coast for

Safety, Speed and Comfort. Close connections at Charleston with the favorite and well-known Florida packets, DIATOR, Capt. Vogel; CITY POINT, Capt. Scott, for FERNANDINA, JACKSONVILLE, ST. AUGUSTINE, PALATKA, ENTERPRISE, MELONVILLE and all points in Florida.

EXCURSION TICKETS AT REDUCED RATES. Insurance to destination ONE-HALF OF ONE PER CENT. Goods forwarded free of Commission. Passage tickets and Bills of Lading issued and stored at the office of JAMES W. QUINN & CO., Agents, Pier 27, N. R., foot Park Place. Office on the wharf.

W. P. CLYDE & CO., No. 6 Bowling Green. Through Freight Tariffs, Passage Tickets by all routes and to all points in the South and Southwest, and further information can be obtained at the office of BENTLEY D. HASELL, General Agent, Great Southern Freight Lins, 81 Broadway, corner of Thomas street. Oct 11 3m

TO SPORTSMEN:

THE PENNSYLVANIA R.R. CO. Superior Facilities

Respectfully invite attention to the lines of the Pennsylvania Railroad Company also reach the best localities for GUNNING AND FISHING in Pennsylvania and New Jersey. EXCURSION TICKETS are sold at the offices of the Company in all the principal cities to KANE, RENOVIA, BEDFORD, CRESSON, RALSTON, MINNEQUA, and other well-known centers for Trout Fishing. Wing Shooting, and Still Hunting. Also, TUCKERTON, BEACH HAVEN, CAPE MAY, SQUAN, and points on the NEW JERSEY COAST renowned for SALT WATER SPORT AFTER FIN AND FEATHER. L. P. FARMER, Gen'l Pass. Agent. FRANK THOMSON, Gen'l Manager. feb 17-77

Old Dominion Line.

The steamers of this Line reach some of the finest waterfowl and upland shooting sections in the country. Connections direct for Chincoteague, Cobb's Island, and points on the Peninsula. City Point, James River, Currituck, Florida, and the mountainous country of Virginia, Tennessee, etc. Norfolk steamers sail Wednesday, Friday and Saturday, Delaware, Monday and Friday at 3 P. M. Full information, given at office, 377 Greenleaf, New York. sep 23 ly

Sportsmen's Routes.

SAVANNAH, GA., ST. AUGUSTINE, FLA., NASSAU, N. P., HAVANA, CUBA.

From Savannah, Ga., to Nassau, N. P., and Havana, Cuba, via St. Augustine, Fla., steamship San Jacinto will sail Jan 1, 15 and 29, and every alternate Tuesday. Connecting steamers leave New York on Dec. 19, Jan. 12 and 20.

FOR NASSAU DIRECT.

Steamship Carondelet, January 2 and February 2, and monthly thereafter from Pier 16, East River, New York. For all particulars, illustrated guide, &c., apply to MURRAY, FERRIS & CO., No. 63 South St.

ONLY DIRECT FLORIDA LINE.

For Fernandina, Fla., Port Royal, S. C., and Brunswick, Ga.

Sailing every FRIDAY from Pier 20, E. R., at 3 P. M.

Close connection made at each port with all railroads for the Interior, and at Fernandina with the steamer Carrie (which has been refurnished), for Jacksonville and the St. John's River.

For through rates of freight and passage to all points in the South and Southwest, apply to

G. H. MALLORY & CO., Agents, 153 Maiden Lane, New York.

NEW HAVEN, HARTFORD, SPRINGFIELD, AND THE NORTH.

The first-class steamer ELA CITY leaves Pier 25, East River, daily (Sundays excepted) at 3 P. M. Passengers to North and East at 12 P. M.

NIGHT LINE—THE CONTINENTAL leaves New York at 11 P. M., arriving in New Haven in time for the early morning trains.

Merchandise forwarded by daily express freight train from New Haven through to Massachusetts, Vermont, Western New Hampshire, Northern New York and Canada. Freight received until 5 P. M. RICHARD PECK, General Agent.

HUNTING

FOR DEER, BEAR, PARTRIDGES, DUCKS, Take the Grand Rapids and Indiana Railroad.

FISHING

FOR MIKE, PICKEREL, BASS, Etc., Follow the G. R. and I.—The "Fishing" Line

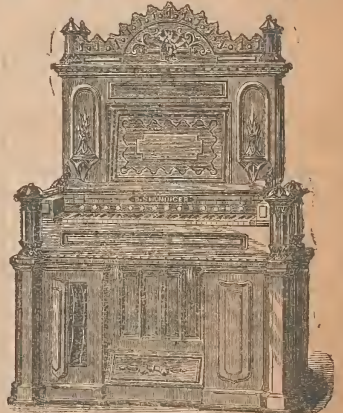
Time, New York to Grand Rapids, 37 hours.

EXPENSES LOW.

Shooting season expires December 15. For information as to routes, ratio and best points for the various kinds of game, etc. Apply to

A. B. LEET, Gen. Pass. Agent, Grand Rapids, Mich. Eastern Agent, 116 Market St., Phila., Pa. Nov 23 77

SHONINGER ORGANS.



Pronounced UNANIMOUSLY AS THE Best Instruments.

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:

"The B. SHONINGER ORGAN CO.'S exhibit as the best Instruments at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climates, less liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either shrink, swell or split." THE ONLY ORGANS AWARDED THIS HONOR.

This Medal and Award was granted after the most severe competition of the best makers, before one of the most competent Juries ever assembled. New styles and prices just issued, which are in accordance with our rule, the BEST ORGANS for the least money.

We are prepared to appoint a few new Agents. Illustrated Catalogues mailed, postpaid, upon application to

B. SHONINGER ORGAN CO., 97 to 123 Chestnut Street, NEW HAVEN, CONN.

Guns, Rifles, Etc.

Second-Hand Guns

SPORTING GOODS,

WHICH CAN BE BOUGHT CHEAP AT

J. F. MARSTERS,

125 NASSAU ST., N. Y.

- One Scott Premier 10-gauge choke-bore, weight 9 lbs., in first-class order, with case, price, \$225
One Remington Sporting Rifle, made to order, pistol grip, rubber heel to prevent recoil, 44-caliber, 50
One Hollis' 10-bore, 9 lb., pistol-grip, rebounding locks, 70
One Remington Military Rifle, 1,000-yard range, 25
One French Double Gun, pin-fire, 16-gauge, 25
One More & Ha ris Muzzle-Loader, 10-gauge, 8 1/2 lbs., double gun, 25
One Hollis' Ducking double gun, 8 gauge, 14 lb., 25
One Scott Muzzle-Loader, 12 lb., 8-gauge, 54-in., 25
One Ballard Rifle, 44-cal., 10 lb., 20
One Colt's Revolving Rifle, 6 shot, 20
One Maynard Rifle, little the worse for wear, 8
One Single Muzzle-Loader, 10-gauge, cost \$45, 15
One Single Breech-Loader, Stephen's make, 10
One Skeeton Stock Stephen's Rifle, 22-calibre, in case, 12
One General Fishing Rod, will make up to different rods, German silver-mounted, cost \$40, 20
One large German silver trolling reel, holds 600 feet line, 10
J. F. MARSTERS, 125 Nassau st., N. Y.



Ronan's Metal Shell Cleaner.

Cleans fifty shells in ten minutes. No water used. Knives elastic, self-adjusting, prevent the slipping of wads. Is unequalled as a breech wiper by covering with an oiled cloth. For sale by all gun dealers, or sample sent free by mail on receipt of price, \$1.50; 10 and 12 bore. J. F. RONAN, 788 Shawmut avenue Boston, Mass. Liberal discount to the trade.

W. W. Greener's

CHOKE-BORE GUNS,

Tried on Game in America.

Supplied by H. C. Squires, 1 Cortlandt St. NEW YORK.

See the Following Testimonials

SIR—A pleasure for me to inform you of my high appreciation of the 10-lb. Greener breech-loader purchased of you last winter. I consider choke-boring, if skillfully done, as the greatest improvement in lowering the muzzle velocity of the percussion cap. It gives the maker complete control of the pattern, and greatly increases penetration. To prove this, I will give you the performances of this gun. The 28-gauge barrels, charged with 4 1/2 drachms of powder and 1 1/2 oz. No. 6 Eleggish chilled shot, give patterns ranging from 25 to 30 pellets in 30-inch circle at 40 yards. The same charge of powder and 1 1/2 oz. No. 4 American shot gives 150 to 175 pattern, with penetration which kills ducks at 50 to 75 yards like a stroke of lightning. It is a characteristic of the choke-bore to show its greatest superiority in the large sized shot. What I am about to say will perhaps surprise you as much as the performance surprised me. On trial of the 12-gauge 28-inch modified choke-bore barrels, with 3 1/2 drachms of powder and 1 1/2 oz. of shot, I got about the same pattern and spread of shot at 25 yards as with the full choke 10-gauge barrels at 40 yards, with tremendous penetration. This is just the performance required of a gun for thick cover, in which you generally find ruffed grouse, woodcock and quail, these birds being killed, with few exceptions, at from 15 to 25 yards.

COL. JOHN BODINE.

DEAR SIR—The guns arrived all right. We think these last guns you have sent us will place the Greener guns ahead of any other in this country, as guns of other makers don't compare in shooting qualities with them. We unhesitatingly recommend the Greener as far superior to any gun of foreign or domestic manufacture that we have seen. We say this after seeing and using guns of all the most celebrated makers. CARLISLE, JONES & CO. SELMA, Ala.

The Greener gun presented by Mr. Squires for the best pointer, and awarded to me, is a close clean, hard hitter, killing its game at very long distances. It is the second Greener that I have owned and they cannot be beaten. I will win with them at the trap or in the field. S. B. DILLEY. LAKESIDE, Minn.

SIR—I have a pair of W. W. Greener's breech-loaders (bought of H. C. Squires, of New York), modified choke-bore. I have had an opportunity to test these weapons on birds heavily feathered, and where great penetration was essential to success. I have repeatedly made long shots, always killing the game clean. At a target both guns made a very even distribution of the shot, with extreme penetration. W. C. FIELD.

SIR—The Greener breech-loader I purchased of you is very fine indeed, and gives great satisfaction. WARREN, Pa. ROBERT DENNISTON.

W. W. GREENER, St. Marv's Works, Birmingham England.

Fishing Tackle.

H. L. LEONARD,

Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

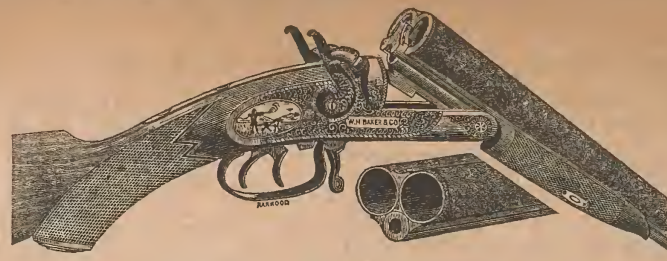
Split Bamboo Rods a Specialty

Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof ferrule," and warranted against imperfections in material and workmanship.

Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancewood, MADE TO ORDER.

I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods.

MANUFACTORY, BANGOR, MAINE. A variety of my rods may be found at No. 19 BEAVER ST., New York City (Up Stairs).



Three-Barrelled Breech-Loading Guns, TWO SHOT AND ONE RIFLE.

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds giving to sportsmen the very thing so often wanted in all kinds of shooting, to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell. They will eventually be the Standard Ball. Out of One Million already sold, not one complaint. No Fancy Price, but a fair profit. Every ball is warranted to give satisfaction. The number of orders from all parts of the country speak volumes. PRICES—Three barrel, \$75 to \$250. Double barrel shot guns, Damascus barrel, \$50 to \$200. Twist barrel, \$35. SEND FOR NEW CIRCULAR. W. H. BAKER & CO., Syracuse, New York.

IRA A. PAINE'S CHAMPION FILLED GLASS BALL.

PATENTED OCTOBER 23. MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the services of that well-known sportsman, IRA A. PAINE, to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell. They will eventually be the Standard Ball. Out of One Million already sold, not one complaint. No Fancy Price, but a fair profit. Every ball is warranted to give satisfaction. The number of orders from all parts of the country speak volumes. Every ball is weighed and examined, then packed with the greatest care, in barrels of 300. Send for price list. Special inducements to the trade. HEADQUARTERS BOHEMIAN GLASS WORKS, 214 Pearl Street, N. Y.

PAINE'S PATENT Feather-Filled Glass Balls and Huber Traps.

MESSRS. WILLIAMS & POWELL HAVE ORDERED 90,000 OF THE FORMER, AND FORTY OF THE LATTER. THEY WILL BE SHIPPED FOR ENGLAND ON SATURDAY NEXT. THIS, WITH THE LATE ORDER FROM W. & C. SCOTT & SONS, EFFECTUALLY ESTABLISHES THE SUPERIORITY OF THE

PAINE FILLED BALLS AND THE HUBER TRAPS.

Bogardus' Patent Rough Glass Balls and Glass Ball Traps.

These Traps are the only ones that give satisfaction, as they are simple of construction, easily set, and not liable to get out of order, and they throw the ball in a manner that more closely resembles the flight of a bird than any other trap in the market. The Patent Rough Glass Balls are made of uniform weight and thickness, and have a corrugated surface that strengthens the ball for shipment to any part of the country, prevents the glancing of shot, and thereby insures the breaking of the ball when hit.

CAPTAIN BOGARDUS was the first to introduce the ROUGH BALL, and at a price far below the smooth ball at that time. Balls and Trap can be ordered through all Gun Dealers. Liberal discount to the Trade.

DEAR SIR—I have ordered 10,000 balls and 24 traps to be sent to England, W. & C. SCOTT & SONS have ordered 10,000 balls and 24 traps to be sent to England, HEADQUARTERS FOR BALLS, HAGGERTY BROS., 10 Platt Street. Dec 13 1m

FOR TRAPS, GEO. E. HART & CO., Newark, N. J.

Sportsmen's Headquarters

FOR WIN S, LIQUORS AND CIGARS.

Outfits for yachting. The camp or field a specialty. Olives by the case, gallon or bottle.

THOS. LYNCH, IMPORTER, 99 NASSAU ST., Bennett Building, New York. Sept 27

C. M. BRENNAN, OLD KENTUCKY BOURBON & MONONGAHELA South Clark Street, Chicago.

PIANOS Retail price \$900 only \$260. Parlor Organs, price \$340 only \$95. Paper free. Dan'l F. Beatty, Wash Dec 20

THOMSON & SON, MANUFACTURERS OF

Sportsmen's Goods, No. 301 BROADWAY, P. O. box 1,016. NEW YORK.

50 Mixed Cards, with name, for 10c and stamp. Agent's outfit, 10c. ATWATER BROS., Forestville, Conn. Dec 18 1m

Sportsmen's Goods.

FLORIDA OUTFITS.

Send 10 cents for illustrated catalogue of SHOOTING, FISHING and CAMPING GOODS, with hints and directions for camping, shooting and fishing Bogardus' rules for glass ball shooting, etc., etc.

TENTS, CAMP STOVES, PORTABLE BOATS, RUBBER GOODS, JACK LAMPS, ETC.

Suits of all kinds, including velveteen, corduroy, leather, etc. Also a new style of duck, very soft and pliable.

Fox, Welbey, Scott and other breech-loading guns and rifles. Ammunition of all kinds.

SPLIT BAMBOO RODS.

I am able to offer to sportsmen a very superior article in split bamboo rods for fly and bass fishing and trolling. Call and examine them. Every rod warranted. With skeleton reel-bands, \$18; solid reel-bands, \$23, with tip case, extra tip and bag. These rods have been well tested, and are equal, if not superior, to any in the market.

FLORIDA OUTFITS A SPECIALTY.

A supplement to my illustrated catalogue will be ready this week, containing a number of new articles for sportsmen, including price list of

SKATES.

No sportsman should be without "THE SPORTSMAN'S DIARY AND NOTE-BOOK;" Blank Scores for all kinds of shooting, Rules, etc., bound in leather;—a handy size for the pocket. Sent on receipt of 50 cents.

Send no money by mail; remit by draft or P. O. order.

W. HOLBERTON'S SPORTSMEN'S EMPORIUM, P. O. Box 5,109, 102 Nassau St., N. Y.

NOW READY,

THE Sportsman's Gazetteer AND GENERAL GUIDE.

WITH MAPS AND ILLUSTRATIONS, 900 pp., Price, \$3.

BY CHARLES HALLOCK,

EDITOR OF "FOREST AND STREAM;" AUTHOR OF THE "FISHING TOURIST," "CAMP LIFE IN FLORIDA," ETC.

NEW YORK: "FOREST AND STREAM" PUBLISHING COMPANY.

The book is a complete manual for sportsmen. It gives every sportsmanlike method for capturing every known game animal, bird and fish in North America.

It designates the proper charges for guns for each kind of game, the various kinds of decoys and blinds, and baits and tackle for the fish.

It gives over 4,000 localities where game and fish may be found, and specifies the game found in each locality, the hotel accommodation, and the best route to get there. (The preparation of this Directory was in itself a work of great magnitude.)

It gives the scientific name and specific characteristics of each species it describes, with the habitat and breeding season of each—a most valuable contribution to science.

It describes 27 varieties of edible fish alone, that may be taken with the hook; 80 varieties of ducks; 50 varieties of snipe or waders, and the different methods of shooting each.

Its instructions for capturing large game are very minute, and the chapters on woodcraft, outfitting and camping have been pronounced by "El Cazador," of Los Angeles, California, to be simply complete.

Every kind of dog used for sport is designated, and his points for bench judgments fully given. The chapters relating to selection, breeding, rearing, breaking, care and diseases, comprise a seventh part of the volume. There are 71 prescriptions and recipes given under the revision of the best modern canine therapeutists.

It is in itself the most concise, accurate, instructive, sensible and comprehensive work ever written upon the dog and his diseases. Any physician can administer the prescriptions with perfect confidence in their safety and efficacy.

It contains very useful recipes and remedies for wounds, bites, poisons, illness, and emergencies of all kinds; for cleaning, repairing, and preserving every implement used for sport; for selection and use of every kind of boat employed by sportsmen; a reference list of several hundred books in request by sportsmen, and a directory where to buy outfitting goods. It instructs in taxidermy, and tells how to preserve and mount specimens of animals, birds and fish.

W. M. HABIRSHAW, F. C. S., 36 New Street, City.

ANALYST FOR THE CHEMICAL TRADE, OF NEW YORK. CHEMIST OF THE N. Y. STATE AGRICULTURAL SOCIETY ANALYTICAL CHEMIST TO THE NEW YORK PRODUCE EXCHANGE. Dec 27 4t



JEWELERS AND SILVERSMITHS, HARTFORD, CONNECTICUT, DEALERS IN Diamonds, Silverware, Watches, Jewelry, etc.

IMPORTERS OF FRENCH, GERMAN, AND ENGLISH FANCY GOODS.

SPECIAL ATTENTION GIVEN TO THE MANUFACTURE OF APPROPRIATE DESIGNS FOR Shooting, Boating, Racing, and other Prizes.

OUR ILLUSTRATED CATALOGUE,

CONTAINING Three Dozen Wood Cuts of the above and other articles in our line, and including the GAME LAWS OF CONNECTICUT, Mailed to Any Address, on receipt of 50 CENTS.

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year.  
Ten Cents a Copy.

NEW YORK, THURSDAY, JANUARY 10, 1878.

Volume 9.—No. 23.  
[No. 111 Fulton St., N. Y.]

For Forest and Stream and Rod and Gun.

### WILD PIGEONS (*Ectopistes Migratorius*).

THE Autumn sky is flock'd with gold,  
As slow the westerling sun declines,  
The floating clouds' ensanguin'd fold  
With a resplendent glory shines;  
And as the glimmering shadows creep  
Across the fading landscape's breast  
And o'er the purpling mountain's sweep,  
The drowsy breezes sink to rest.

The roe-buck to his thicket goes,  
Where dense the wood its covert throws  
The red stag that had paused to drink  
Beside the rivulet's plashy brink  
Exhausted flings his dappled side  
Along the cool, transparent tide—  
'Tis there the pigeons seek the wood  
To roost, a blue-wing'd, uttering brood.

Deep in Wisconsin wilderness,  
In forests dim of Michigan,  
The bending boughs their bosoms press,  
The air their clanging pinions press.  
So vast their numbers, hunters say  
They sweep the bough and break the spray,  
And of their startled millions rise  
With roar, like thunder of the skies.

Years since, in wild woods of the East,  
They gathered to the harvest feast;  
They swarm'd by river and by shore,  
In vast flocks flew the pastures o'er;  
They swept, innumerable, the plain,  
Gleaning the corn-field and the grain—  
Then, winging to some wood their flight,  
Settled in roosting-place for night.

When emigration, toward the West,  
In restless emulation press'd,  
And ax and plow, and farmer's toil,  
Open'd the furrows of the soil;  
And myriad acres of the wheat  
Yellow'd in Summer's sultry heat;  
And bearded rye and golden corn  
Shook their bright tresses to the morn—  
Then, to these sumptuous pastures new  
These wing'd, devouring robbers flew.

When June, with rose-red cheeks aglow,  
Broadcast, wild strawberries doth srow;  
When August, on the sun-bright hills,  
With nectar the ripe blueberries fills;  
O'er all the heated pasture pours  
The blackberry in horded stores;  
And ripens on the swinging vine  
The grapes, like amethyst that shine—  
Then to this rich, luxurious fare,  
So prodigal, the rocks repair,  
Rejoicing in the festival  
That bounteous Nature yields to all.

ISAAC McLELLAN.

For Forest and Stream and Rod and Gun.

### Voyaging on the Upper Missouri.

By ERNEST INGENSOLL.

THE sources of great rivers are invested with a certain romantic interest. The mind follows a mighty flood to its small beginnings as naturally as it asks the causes of strange phenomena or studies the birth of a great man to find some sign of his future eminence. If the springs of the Nile have been sought with unwearied patience and reckless outlay of treasure until they have become almost as fabulous as the alluring fountains of *elixir vita*, because the whole race was curious to solve the riddle of the sacred river's origin, the writer need not beg pardon of the reader in proposing to take him to the very ultimate head of a river twice the length of the Nile—our own Missouri.

The Missouri rises in the Rocky Mountains not far west of the National Park, where the Main Range divides Montana from Idaho. This water-shed is prolific of rivers, three branches of the Missouri, the Yellowstone, two confluent of the Snake (which forms the Columbia), and the Green River (that finally becomes the Rio Colorado), taking their rise within a few leagues of each other.

High on the northwestern slope of these mountains, in longitude 112° and latitude 44½° approximately, the meltings of the snowbanks trickle into a little marshy basin. This overflowing, a slender rivulet finds its way down through

devious and rock-obstructed channels, tumbling and foaming as is the custom of snow-fed torrents, until it gets away from the spruce forests and winds out northward among the foothills, from whose color it receives its name—Red Rock Creek. Then is added to it Horse Plain, Grasshopper, Rattlesnake, Beaver, Black Tail and some other creeks, outlets for mountain snows, which together form a river called by Lewis and Clarke, more than seventy years ago, Jefferson River, in honor of the President of the United States. A hundred miles farther on this is joined by the Madison and the Gallatin, the christening is repeated and the united streams become the "Missouri," which name in turn is exchanged for "Mississippi," just above St. Louis. But the stream I have traced is the real Father of Waters, and there is little reason why it should not be known as the Missouri, or else Mississippi, from the Red Rock fountains to the Gulf of Mexico. That makes a river to be proud of—a river navigable by large steamboats for 4,000 miles, and draining 1,250,000 square miles of territory.

Leaving out of the question the expedition sent northward by Cortez and his successors, which never wandered so far, the earliest exploration of the West was guided by this water-course, and more than a century ago white men, notably Le Sieur de la Verendrye, in 1743-4, had penetrated to its headwaters, although, perhaps, without recognizing the true geography. The trappers of the fur companies scattered more and more widely through the gorges, and their stories fired the zeal of Lewis and Clarke, who reached the Forks of the Missouri in 1804, and passing through the valleys southeast of it, gave names to the streams and mountains, names which, unfortunately, have largely been replaced by more modern but less worthy ones. Yet it was not before the discovery of gold mines in 1862 brought eager crowds to Montana that anything in detail came to be known about the sources of the Missouri, nor until Dr. F. V. Hayden went there in 1871 was the region begun to be surveyed. Even now few persons will undertake to guide a party through this wilderness of mountains, and with the exception of two skirting stage routes there are no roads; while travel continues to be dangerous on account of prowling bands of Indians.

The scenery along the parent streams is striking and beautiful. Noble mountains are piled to the sky; distant gray plains stretch into blue indistinctness; pleasant valleys open here and there embowered in foliage through which you catch the sparkle of icy brooks. The Rocky Mountains at this point are broken into a vast irregular group of granite peaks, snowy atop, and lower down bristling with sharp pinnacles and studded with mighty crags or detached masses of basalt and caps of purple porphyry that stand beetling above the spruces and firs, or crop out of a grassy slope as an Indian's sinewy shoulder protrudes from his blanket. The stratified conglomerates, marls and sandstones have weathered into quaint architectural forms, and add picturesque to the scene. Tumbling and leaping in rash haste, the young rivers rushing to their rendezvous, meet with many an adventure: here plunge headlong down the ledges, there quietly meander through a valley spread widely between banks that bear blooming gardens, anon gathering their forces to run the gauntlet of some canyon between brown walls hundreds of feet high, whose strata, heated to pliancy, the hand of geologic force has some time gripped so tightly that it has distorted and crumpled them as I might crush this sheet of paper in my fist. Such is the history of the Jefferson, which, eluding the tremendous cliffs that stand in its way at Beaverhead, gradually widens and pursues an even way through extensive valleys of fertile, reddish soil, bounded by pine-clothed foothills sweeping up on either hand in fine contrast to the gentle curve of the broad, drab meadow.

The Three Forks is the point of junction of the Jefferson, Madison and Gallatin, and is 250 miles from the sources of the first-mentioned. The Madison drains the geyser basin of Yellowstone Park, flowing almost directly northward through magnificent mountains and attractive valleys. Between it and the Gallatin, the smallest and easternmost of the three, is only a range of hills, at the end of which the trio come together with much swirling of stranger currents and eddying of newly mingled waters, each losing its identity, and all flowing hence to the Missouri.

I was there last August, and although the summits of the mountains hemming in the valley were streaked with snow—a picture of winter—at their base summer reigned. The courses

of the streams, with their many cut-offs and sloughs, are marked by graceful lines of cottonwood and black alder, by islands clothed with verdure, and by jungles of sweetly fragrant wild currant, as they pass through the wide park. The soft carpet of olive-brown bunch-grass, the sheen of the waters seen between the groves, with the shadowy forms of the silvery-rimmed mountains in the distance, made in the twilight a rarely enchanting landscape.

A town has been elaborately laid out there with the high hopes that animate all Western settlements, but thus far a flouring mill, some stores, a race-course and a few inhabitants comprise all there is of Gallatin City. The place is annually the scene of exciting races upon "Cayuse" ponies, when ranchmen from the Gallatin and Madison valleys—both of which are filled with marvelously productive farms—meet miners from the surrounding mountains to stake gold dust against flour and bacon on their favorite nags.

Here my personal experience of the river ends, to be resumed at Fort Benton, 250 miles below. Nevertheless, as I followed its general course much of the way to Helena, and caught sight of it often between Helena and Fort Benton, I might be able to give a sufficiently accurate description of its troubled passage for this distance. But fortunately there is at hand the excellent account of Mr. Thos. P. Roberts, who, in 1872, made a boat journey for the survey of the river course from the Forks to Fort Benton. To his entertaining narrative I am therefore indebted.

At first the river is 500 feet wide and a fathom deep, the banks varying from rocky hills to open grassy knolls. Then a picturesque canyon of reddish rock is wriggled through, and beyond that for fifty miles its waters are worried by boulders, islands and rapids, here elbow'd out of their straight track by the pushing of hills, and there lured from it by the breadth of prairies where herds of splendid cattle come down to drink. After this the river gathers itself into a narrow channel to glide with the stillness of profound depth through the canyons of the Belt Mountains, separating central Montana from the buffalo plains. On the sides of some of these canyons rounded rocks of great size are piled, tier on tier above each other, like cannon balls, to a height of five or six hundred feet; in others the frowning cliffs are solid, rough-hewn granite, with deep black ledges here and there, and occasional jutting ledges where great yellow pines get foothold and cast pointed shadows across the narrow gorge. The last of these canyons is the most remarkable of all on the Missouri.

"Not until we were within the portal," say the surveyors, "and the sunlight was shut out from behind us, did we fully realize how closely the river is here locked within the embrace of the mountains. For two miles ahead a wonderful vista now began to open out, and still there was visible no outlet to the turreted and pinnacled walls which penned us in. Higher the walls grew, and darker and more sombre became the shadows, while a solemn stillness seemed not only to pervade the air, but the water, which, fortunately for our observations, flowed sluggishly along. \* \* \* High up on either hand were colossal statues, carved by the master, Time, in the niches of this gigantic winding hall, five miles long. The walls rose majestically six hundred, eight hundred and one thousand feet high, and in places appeared to rest against the white clouds above, which completed the arch over our heads. The sides afforded no foothold for man or beast, except occasionally, up through lateral fissures, in whose dark recesses lay tumbled in rare confusion huge broken pillars and angular rocks, jammed, and forming natural bridges from chasm to chasm.

"Down the river, midway in the canyon, at the principal turn to the left, the wall actually hung over the river, so that a plummet-line six hundred feet long dropped from the brow, would have struck our boat as we passed beneath it. Pine trees fringed the summit, and struggled for an existence in some of the crevices, some of their tops pointing downward, and many were broken off where the superincumbent growth was too weighty for the slight hold of their roots.

"We longed for the pencil of a Bierstadt or a Moran. Such grotesque forms, such heights, such depths, such lights and shades as here presented themselves, were far beyond the power of pen to illustrate. Words may exaggerate points, but no descriptive language can do justice to this scene. During our speculations the boat drifted around and around as it slowly floated past the 'Black Crook Dens' skirting the deep

river, which nowhere through the canyon is more than three hundred feet wide. Although not a breath of wind was stirring, we all noticed sudden changes in the temperature as from time to time we passed through strata of air, now warm and now twenty degrees cooler, which atmospheric phenomenon we could not account for. A slight rustling from the top of the cliff on our left suddenly attracted attention, some small stones beginning to drop and splash in the water near us, presaging perhaps grave disaster that might entomb us under the mountain's huge weight; but presently the practiced eye of Mr. Scott, "the third mate," an experienced miner, mountaineer and surveyor, detected the cause of our alarm. It was a mountain sheep, or "big-horn," looking down from the dizzy height, and stamping his feet with no puny rage and evident dissatisfaction at the strange creatures far below him.

This is the "Gate of the Mountains" of Lewis and Clarke; and Mr. Roberts thought it more effectually gratified the lover of what is grand in nature than even the frightful gorge of the Yellowstone, where is much that is soft and pretty to distract the eye from the raging flood three thousand feet below, while the imposing desolation of the Missouri's canyon is unrelieved.

As one travels between Bozeman and Helena, or glances eastward from the streets of the capital, his eye overlooks all of this canyon region and then marks the course of the river, but can never catch a glimpse of its buried waters. It is a landscape of broad beauty, with the mighty landmark of the Bear's Tooth as central figure. The foreground slopes gently downward in miles of yellow undulations, with here and there a bare reddish knoll and scattered lines of green willows, where brooks meander, watering verdant patches of grain. On the further side the plain swells upward into gray hills, and behind them tower terraces and bluffs of larger build and darker hue, standing out in front of the real mountains carved in firmest outlines of ultra-marine, with few details of shape or marks of light and shadow, crowned, far beyond, by the coruscant gleam of snowy crests flashing like curved falchions against the sombre background of the sky. Could any one weary of such a picture?

Thus between black and red walls fiercely, and lazily through sunny meadows, rippling over sand-bars and plunging down rapids, intercepted by many a charming island, making the acquaintance of scores of noble trees, drank of elk and deer and mountain sheep, its shallows full of beavers and otters, its pools the home of trout and whitefish, its banks haunted by strong-winged wild fowl, and nourishing rich tracts of cultivable land along its branches, the noble stream rushes onward to cast itself over the Great Falls. After a long placid sleep between banks of rich prairie, where sunlight enters, the river arouses itself, and, springing forward, drops twenty-six feet vertically. Then the water pitches down a long series of cascades and pours over a curving ledge, fifty feet high, in one unbroken sheet, with vast uproar and banners of smoky, rainbow-lit spray. Extricating itself from the turmoil of this leap, the river, churned and lashed into continuous foam, rolls swiftly down between abrupt and crowding banks, and with the whole tremendous power of its pent-up current, precipitates itself down the rough steps of a broken precipice, at one place ninety feet in height. The final descent is a sublime spectacle, and the noise is like that of Niagara; but neither the gorge below, filled with the haste and waste of waters, nor any of the accessory scenery approaches in that just mingling of grandeur and beauty, the superb landscape where Niagara's lithe flood, verdant as liquid malachite, spins in its whirlpool and swings majestically down its canyon into the bosom of Ontario.

The country about these falls is one great dry, rolling plain, covered with bunch grass, which pastures millions of buffaloes and antelopes. The river cuts its way deeper and deeper into this plain, descending 350 feet in half a dozen miles, leaving abrupt cliffs of reddish, jurassic rock and bluish clay, through which deeply cut ravines open down to the water. These cliffs show boulders, protuberances and detached fragments, often wrought by the chisels of water and air into grotesque similitudes of artificial objects. The soil is fertile, but the severity and length of the winter make success in agriculture always uncertain. The climate is that of Quebec.

(To be Continued.)

For Forest and Stream and Rod and Gun.

#### AMONG THE PACIFIC ISLES.

OUR good ship, bound from Boston to the Sandwich Islands, passed through the Straits of Lemaire, and one fine morning in February (midsummer in the southern hemisphere) arrived off Cape Horn. Few old navigators get such a fair view of this storm-breeding promontory as we had that day. The weather was comfortably warm, the air clear, and a gentle, four-knot breeze blowing from the north-east. All sail was set to main top-gallant studding sail, and all hands, including some forty passengers, were on deck. As we gazed on the famous and dreaded rock two miles distant, it was hard to realize that many vessels had buffeted the tremendous seas for fifty and sixty days in the vain endeavor to round the Horn.

But three days after we had a fair sample of the treacherous weather of this much vexed region, where the gales and the billows of two grand oceans seem perpetually contending for the mastery. The morning and afternoon had been moderate. The long table in the cabin had been set for supper; the sky-lights and companion-way were open; the steward was just about ringing the bell, when suddenly, as if a lion had sprung from ambush, a tremendous wave broke on our quarter, flooded the deck, and poured down the sky-lights and companion-way. Such a wreck and ruin! Such a mixture of applause and children, of women and tea (externally applied), salt water, salt beef, wet men, fragile dishes and hard tack, butter and boots, I never have beheld! To all this rumpus below add the fierce shouts of the officers on deck, the frantic efforts of the whole crew, steward and cook included, to shorten sail, the shrill scream of the wind and the loud flapping of the canvas and you will have some idea of the dire confusion which took the place of our quiet tea. In less than half an hour we were under bare poles with a piece of tarpaulin about a yard square triced up in the mizzen rigging. There was no swell. The wind blew a hurricane from the north-west, smothering down the sea, which was perfectly white to leeward and for a mile or so to windward. There

the sky and ocean seemed to be cut in two. Beyond that line the sky and water were of a dense blue black, indistinguishable one from the other. This region of murky gloom advanced rapidly toward us. All at once the captain exclaimed with a tone of horror: "Look! It is a water-spout, close aboard! We are lost!" And there it was, straight ahead, roaring like Niagara, and coming like a race-horse, bearing with it that black pall as clearly cut as a curtain. The panic which ensued I have never seen equaled either on the battlefield or when bumping on a coral reef off the dangerous coast of Lower California. The captain lost his wits; the crew, some of them, actually fell down on their knees and prayed. Women fainted, children shrieked in ignorant sympathy, and strong men turned pale. But before the prayer could be finished—before the lady who had fainted at the top of the companion-way had slipped to the bottom, the danger was over. I happened to be standing by the man at the wheel when the alarm was raised, and partly through ignorance and partly from panic imitation of him, merely stared at the roaring, raging, seething monster. In an instant, the twisting column had driven past our stern, apparently not twenty feet from it, and before we had recovered ourselves appeared long, black, serpent-like, reaching to the clouds, miles to leeward and ahead of us, off our port bow.

"If our sparker boom had touched it, there wouldn't have been a piece of this ship left as big as a chip," said the man at the wheel. We two had the best view of the spout, and both were sure that it was not complete at the time it passed our stern. Though the column of water was much higher than our masts it did not then join a similar nucleus from above. It was probably in the last stages of formation.

Since this providential escape I have never been at a loss to account for vessels "missing," as they are classified by the insurance companies. Off Cape Hatteras I have seen scores of waterspouts at once on the edge of the gulf stream. Imagine a vessel running into one of these in the night—who would there be left to tell the story?

Off Cape Horn we caught a few albatross with a hook and line. Next time I go I shall take a stout rod and reel, and try what sport these huge birds will give to the scientific angler. After putting the customary collar and message on them we let them loose. As we ran into the trade winds and warmer latitudes of the Pacific, dolphins began to appear. The ordinary tackle of the sailor—line hooks and white rag—was all we had, but the sport afforded great fun to the voyagers weary of the sea. I should think that with a good bass rig the dolphins might give as much sport as the bluefish. I was not much impressed with the iridescent colors of the expiring dolphin. The ordinary seap is far more beautiful in his death agony.

One day I tell calm and I had my first view of the shark. The mate called my attention to two fins some distance astern, and soon all the passengers were on deck to witness the capture of these monsters. By throwing overboard a few fragments of bait, three were soon enticed under the stern. The mate tried first with the harpoon, and succeeded in cutting the smallest one in two. The other two immediately retired with him to unknown depths, whether to nurse or to eat him I cannot say. At any rate, they soon reappeared without him. The large shark-hook and chain, baited with pork, was then let down over the stern. To see the leisuredly, glutinous, self-confident manner with which the rascal turned over, and swallowed the mass would nerve a saint's arm with hatred. The mate lanced and killed him in the water, being rather particular about his decks. It was announced that we should have some shark for supper, and the officers and old sea-goers among the passengers occupied most of the afternoon in praising to the ladies the flesh of the shark, and relating many instances of money, jewels, and other valuables found inside these voracious fishes.

When we gathered at the supper table there was quite a buzz of pent-up excitement among the ladies and young people. The boiled shark was duly served, when, "Oh, my!" exclaimed a lovely girl of eighteen, and picked out a Spanish quarter from her piece of shark. The coin was passed around and inspected, and many a conjecture made as to where the shark got it. As the combined imaginations wove a romantic tale of a shipwrecked Spanish galleon, freighted with bravery, beauty and booty, the old sea-goers exchanged furtive smiles. Meanwhile, every morsel of that boiled shark was chewed fine and carefully swallowed by eager treasure-seekers. Not long after I overheard the mate saying to old Captain B— "The oracle of the cabin." "Waal, if that warn't with a quarter, I want ter know." If the reader has never eaten boiled fresh shark, I will tell him how it tastes. Suspiciously like boiled salt cod, long soaked.

It was some months after this that on a fine autumn morning, King Kamachama's royal yacht, a fast and commodious Boston built schooner, slowly fumed out from the harbor of Honolulu. We were a party of a dozen ladies and gentlemen, who had chartered the yacht from her august and dusky owner for a trip to Hawaii and the famous volcano of Kilauca. The crew were natives, but the captain was a full blooded Yankee. The view of the island of Oahu from seaward is lovely, especially to those who have made a long voyage around Cape Horn from the states. The town nestles on the shore at the northern end of a long, flat plain. In the back ground the eye may trace the road leading up the beautiful Nuau Valley, past villas and cottages toward the almost unknown and uninhabited regions in the centre and eastern parts of the island. To the right of the Nuau Valley rises the cone of an extinct volcano whose oval, grass grown crater has given it the name of the "Punch Bowl." At the extremity of the plain a bold, high cap projects into the sea, fringed at its base with coconut groves, called Diamond Head, the land-mark for vessels bound to Honolulu.

As we glided through the channel between the reefs we gazed with admiration on the natives—men, women and children—disporting themselves among the breakers with the fearlessness and fun characteristic of the Kanakas. As we left Diamond Head astern the wind died away and left the Kamachama III, at the mercy of the provoking swell which rises between Oahu and Maui. If anything will bring on seasickness, that cross swell will. I can only come to it to a mixture of the British Channel and the Straits of Gibraltar after a westerly gale has given way to an easterly and depth of the latter. But we were proof against its power, with one or two exceptions.

The next morning we were running along with a lively breeze past Mami and Molokai enjoying to the full the poetry of motion in a tropical sea. And here let me confirm all that has been written by voyagers like Cook, and romancers like Herman Melville as to the fascination and delight of pleasure sailing and exploration in the tropical parts of Polynesia. Content yourself with what nature furnishes on a grand scale,

but do not look at the doings or condition of the native man and his companions. Hideous poultry, wretched dogs and a decaying race of human beings will repel you in disgust.

I long for the day to come when the Pacific coast of the United States will have a fleet of yachts like that of the New York Squadron, when this ocean shall become a favorite cruising ground, and when some enthusiastic and intelligent author shall fully describe and amply illustrate the beauties of the island world. No new field for the artist or the *litterateur* is fairer or more enticing. As we ran in under the lee of Hawaii a dead calm set in before we could make Hilo, our destined port. The coast of Hawaii here rises almost perpendicular and is of the peculiar blue-green of the Pacific, a shade unknown on our Atlantic coast, but of which one is reminded off the Mediterranean shore of Spain. Directly ahead of us we could trace the silvery thread of a cascade falling from the brink of a precipice into a tiny nook on the shore. We were assured that this fall was nearly 1,000 feet high, and that the valley was only accessible by canoes from the sea. Romance also pictured a small colony of natives there in undisturbed and native innocence, a *la* Typee and Osnoo. I used to believe that sort of nonsense. Now I have adopted the faith that all savages are dirty, beastly and cruel. In the background of the interior the land rose and faded dimly blue toward the enormous peaks of Mouna Loa and Mouna Kea, each nearly 14,000 feet high.

The next morning we were at anchor off Hilo and soon conveyed ashore to enjoy the kind hospitality of Dr. Coan, the resident missionary. Pending the preparations for a start the next morning we took a stroll to the falls of the Wailuku River. This is, or rather was, a considerable torrent, which, pent up by precipices to the width of six feet, falls in a solid round sheet about twenty feet into a deep basin below and thence into the sea. The whole configuration of the country has probably changed ere now many times, owing to the earthquakes and volcanic eruptions. The river may still exist and it may not. If you ever visit Hawaii you must not expect to find the places visited to correspond with the descriptions you have read.

The cascade presented a lively scene, such as, I venture to say, none of the great continents has ever presented. Natives of all ages and sexes were tumbling, gliding, rolling, diving from the river above over the falls down into the basin below. The compressed stream made so impenetrable a column of water, as it rushed over the ledge, that the heaviest man was carried on its surface like a chip over the brink into the raging, foaming sea below. There he would disappear and emerge laughing and joyous from the stream a dozen or twenty yartuous bathers, all merrily vying with each other to get back first to the top of the fall. It reminded me very vividly of the New England boys "coasting" down hill in winter, and could be fairly called its converse or complement, as the swimmers came rushing down at railway speed, some head first, some feet first, some sitting down and others arm in arm.

The next day at dawn we set forth on mule-back and horseback for the volcano, distant about forty miles, attended by a train of natives as guides and carriers. The first night was passed at the half-way house or hut, which had a thatched roof, three sides and a front doorway, occupying the whole front; no door. Toward afternoon, as we carefully picked our way over the black, desolate lava plain, 8,000 feet above the sea, now looking down carefully to avoid the air, fire, boiling water, steam and sulphur fumes, anon glancing up in wonder at the stupendous snow-capped dome of Mouna Loa, we were abruptly stopped. We had reached the edge of the great crater. No separate descriptions of Kilauca can ever be alike, and only the greatest of artist's pen or brush can do me justice to its grandeur. In simple words, therefore, let me call it a great hole, thirteen miles in circumference, and from 1,200 to 1,500 feet deep, punched in the middle of a vast plain. In the southwestern part was, at that time, a lake nearly half a mile in diameter, of liquid lava. About half way down to the crust of black lava which made the precarious and ever-shifting bottom like a surface of black ice, there ran a well-defined line around the perpendicular side walls. This marked the point to which the crater had been uplifted previous to the last eruption. Just think of the enormous amount of white, hot, running lava that must have been emptied out in its way to the sea. A mass thirteen miles around, and from 500 to 600 feet deep, was to be accounted for.

We passed two days here. The view at night was more impressive than all the *fees* of Napoleon in Paris—wild, fantastic, horrible, yet fearfully fascinating. By day we descended to the bottom and trudged over to the lake. Those who have seen in iron foundries a pot of white hot metal will please imagine a pool of it, half a mile long, spurting jets a hundred feet and more into the air, with reports like cannon, commencing white, turning red and then black, and falling back solid (so quickly does lava cool) into the boiling, exploding, raging pit below. It seems as if Milton must have seen Kilauca.

As we cautiously picked our way back over holes and cracks and thin lava crust, we realized the danger of the excursion. A native always goes before, sounding the way with a pole, and often deviating from a direct course to avoid tumbling through the thin and brittle covering which alone separates us from the fire below.

What a sight it would be to look at the whole vast crater in fierce activity from the top of Mouna Loa, 8,000 feet above. Will mortal man ever behold it?

One day sufficed for the journey back to Hilo, and now for my shark.

As we lay becalmed off Hilo next day one of the gentlemen must needs go in swimming. He had not seen any sharks, and he did not believe there were any. In he plunged, and paddled about for a few moments. He had regained the deck not a minute before Mr. Shark put in an appearance, with a wicked and hungry eye. This brought the ladies on deck and the shark hoot out of its locker. In as little time as it takes to tell it, so intent on business were all parties, the monster was hooked, a bowline slipped over his tail, and he hoisted aboard. As he struck the deck the bowline slackened and came off, and the hook dropped out of his mouth. The cook aimed a terrific blow at the monster with his ax, missed and planted it solidly in the deck, while the shark knocked him flat and ten feet away. Such a scrambling is seldom seen. All hands made for the rigging and the ladies for the cabin. That shark fairly captured the schooner, and held possession for awhile. At last he was tempted to try to chew up a big log of wood, and during this process was knocked on the head. Nobody cared to eat him, but his backbone was made into a walking-stick, and his enormous jaw, uncrated, and preserved.

THE GULL RIVER WATERS.

BALSAM LAKE lies at the terminus of the Toronto and Nipissing Railway, and is about ninety miles distant from the City of Toronto, in Canada. It is surrounded by land of poor quality, in places scarcely cultivable, but on the shores of the lake are several farms that, by energy and persistent hard work, have been cleared and brought to a higher state of perfection than one might think possible at first sight of the virgin land in the locality.

Balsam Lake is at the head of a chain of waters—small lakes—of, approximately, from four to fourteen miles in length, and short links of river that extend as far east as Rice Lake, including in the chain Lakes Cameron, Sturgeon, Pigeon, Buckhorn, Stony and Clear. Out of Rice Lake these waters find their exit by way of the River Trent into the Bay of Quinte, Lake Ontario. Early in the history of Canada these lakes formed one of the by-ways used by H. B. voyagers on their return from Montreal with stores for their posts in the Northwest. To-day these hardy adventurers have given place to the fisherman and tourist whose summer camp-fire lights up by night a scene of comfort and ease that would contrast strongly with the old-time bivouac of swarthy voyagers, whose camp appointments were very simple—an overturned canoe the usual shelter. The fishing in these lakes consists of bass and muscalonge, and, of course, the dozen other varieties found in like waters—perch, sunfish, catfish, suckers, etc.

The country about Rice Lake to the south and north has been settled for many years. This lake is twenty-two miles in length, and from two to four miles wide. It is famous for its muscalonge and bass fishing, which even at this late date is probably better than in any of the lakes more remote from settlement. Its wild rice attracts many duck, and in October and the early part of November every available point and every island, at all favorably situated, is occupied by a sanguine sportsman. Decoying is the method of capture usually employed, but for ten years past the number of ducks visiting the lake has been rapidly diminishing; and although ten or fifteen years ago, with less destructive weapons than are in vogue to-day, our sportsmen were able easily to bag from 30 to 100 ducks. From five to ten is now considered a good average number.

Rice Lake is probably the most beautiful of our back lakes in the Province of Ontario. It is connected with the town of Cobourg, on Lake Ontario, by the C. P. & M. Railway, fourteen miles in length. In the vicinity of most of the lakes above-named deer are still to be found, but only in some localities is the hunting really good, notably at Deer Bay, Buckhorn Lake, and north of Balsam Lake. Of course there are fifty localities within the province that afford capital sport and deer in plenty, but I am confining myself just now to a meagre description of what are commonly known as the Gull River Waters. Many a town-weary Cannuck finds full enjoyment in canoeing down the chain, making it a two weeks' journey, which allows plenty of time to insure comfort. If the weather is wet or stormy he need not pursue his way, but may employ himself "within doors" in arranging fishing tackle, in reading or in companionable talk.

Buckhorn Lake has some very beautiful scenery, and at the Narrows, between it and Pigeon Lake, the country on either side, as you enter Buckhorn, has the appearance of a grand park, oak, beech, maple and balsam trees lending their varied tints to the landscape. The lower part of Buckhorn Lake, after the rapids are passed, is full of beautiful little rocky islets, covered with bright vegetation, very similar to those on the north shore of the Georgian Bay. There is very little settlement about Buckhorn; the land is poor close to the lake, and deer, partridge and ducks abound during September and October. R. A. R.

Fish Culture.

FOURTH ANNUAL REPORT OF THE COMMISSIONERS OF FISHERIES OF WISCONSIN.

THE Fish Commissioners of the State of Wisconsin—this board consisting of the Governor of the State and Messrs. Wm. Welscher A. Palmer, P. R. Hoy and H. F. Donsman—in presenting their report for the last year, ending September, 1877, follow in the wake of many other commissioners by calling attention to the necessity of taking steps to compel the making of fishways around dams constructed across Wisconsin rivers and streams. Cases are cited of fish always caught at the foot of dams precisely in the season when their instincts led them to ascend for the purpose of spawning. Accordingly, the commissioners, in compliance with the request of numerous citizens, will call the attention of the Legislature to this subject.

In a former report an account of operations at Milwaukee and Madison was published. The process of fish breeding has apparently been carried out quite successfully in regard to trout, not, as the commissioners very wisely state, "while the cultivation of the whitefish must ever constitute our leading purpose, and the lake trout next, we are nevertheless assured that the public want requires that the speckled trout shall have a place."

From Milwaukee over 1,736,000 lake trout fry and 6,300,000 young whitefish have been distributed. This distribution of 8,000,000 young fish is quite remarkable in itself for an establishment not more than a year old. When one learns that the cost of the young fish was only fifty cents a thousand, and that the expenses of distribution only amounted to \$27.15, we may safely state that the commissioners have managed the business entrusted to their care with great good judgment and economy. Mr. Donsman, the commissioner in charge, thinks that with new appliances some twelve to fifteen millions of whitefish spawn can be collected this year with the same outlay as last year. Mr. Welscher furnishes an

interesting contribution to the report in his special paper on fish hatching. Mr. Welscher states that about 182 days is the time it takes the eggs of the lake trout to incubate, but that 140 to 165 days were necessary for whitefish. Mr. Welscher further adds, "Now what I claim is this—that lake waters are the only proper waters for hatching lake fish, and that a long period of incubation is most essential and necessary to produce good, healthy fish. Also, by hatching the ova in water at a low temperature, and the consequent duration of incubation, it brings out the young fish in the spring months when the bright, warm days of April and May have removed the icy coat from the lakes and streams," and accordingly that young fish have a better chance. The report of the Wisconsin commissioners is an exceedingly able one, and bears many evidences of genuine interest in the labor undertaken.

AMERICAN FISH CULTURISTS ASSOCIATION.—The regular meeting of the American Fish Culturists Association will take place on February the 27th and 28th at the room of the Directors of the Fishmongers' Society of New York, over the wholesale market, foot of Beckman street, New York. A large attendance of the leading fish culturists in the United States and the Provinces is expected. The officers of the association are: The Hon. R. B. Roosevelt, President; E. G. Blackford, Treasurer; B. Phillips, Secretary. Besides numerous papers of interest on leading topics the sections organized at the last meeting will report as follows: On Methods of Fish Culture, Messrs. Green, Porter and Wilmot; on Fishing Laws and Fishways, Messrs. Everts, Stone and Ferguson; on Natural History, Messrs. Milner, Mather and Hallock; on Fisheries, Messrs. Blackford, Phillips and Edmunds.

THE WESTERN IOWA FISH ASSOCIATION.—The Western Iowa Fish Association have been doing a great work for this section of country, and the results of its labor are now becoming apparent. The members have worked with great zeal and without a cent's worth of expense to the people to stock the streams in this part of Iowa with the best varieties of good fish that could be obtained from the State hatchery-house at Anamosa. The first fish received was on the 7th of June, 1875, and consisted of ten thousand Penobscot salmon, which were distributed by Mr. D. W. Crawford and Mr. A. C. Graham as follows: three thousand in the Boyer River and two thousand in one of its tributaries. Three thousand were planted in the Mosquito and two thousand in Willow Creek in Shelby County, which is a small stream that flows in the West. Some of these fish have already grown to a very fair size, and occasionally one is caught. In February, 1876, the association received 85,000 land-locked salmon and 15,000 Mackinaw trout. Messrs. Crawford and Graham, assisted by State Fish Commissioner Shaw, put 5,000 of salmon in the Little Mosquito, 5,000 in Keg Creek, and 5,000 in Spring Creek. They also placed 14,000 of the Mackinaw trout in the same streams. Mr. Cooper and S. C. Bowman took 15,000 of the salmon to Big Lake, 5,000 to Hauthorn's Lake, 5,000 to Pigeon Creek, 5,000 to Honey Lake, and the remaining 30,000 to small streams tributary to the Pigeon. The remaining 1,000 Mackinaw trout were placed in Mynaster's Spring. On June 29, 1876, 2,000 eels were received from the State Fish Commissioner, 500 of which were put in Big Lake by the late S. C. Bowman, 500 in the Mosquito at Park's Mill by George Parks, and 500 in Keg Creek by A. C. Graham and D. W. Crawford. The remaining 500 were put in smaller streams. In October, of the same year, Mr. Shaw delivered a lot of striped, rock, black and white bass, wall-eyed pike, croppies, sunfish, perch and a few other varieties, all taken from the Mississippi River. There were about 10,000 in all, and the varieties were all new to our waters, and some of them were large enough to breed. S. C. Bowman took part of them to Mosquito Creek, and Mr. Campbell the balance to Keg Creek. Later in the month Mr. Shaw made the association another shipment of a few large bass and perch, some of which weighed two pounds. These were planted by Mr. A. C. Graham in the Mosquito at Park's Mill. Thus it will be seen that about 125,000 eels have been procured by the association from abroad and distributed. But this is not all they have done. Mr. Graham made application to the Board of Supervisors last fall for funds to enable him to seine the sloughs on the bottoms, in which there are hatched millions of young fish every summer, and distribute the same in the running streams further inland, and he was granted \$50. With this sum men were hired and about 50,000 bass, croppies and wall-eyed pike were caught and placed in Keg and Mosquito Creeks. This was the only assistance the association has had, and we think they are deserving of great credit and should be encouraged.—Council Bluffs (Iowa) Nonpareil.

MINK INFESTING TROUT PONDS.

Seth Green, Esq., has favored us with the following letter in reply to a correspondent who asks him how to get rid of mink which infest his trout ponds:

ROCHESTER, Dec. 27, 1877.

MR. LAND: Dear Sir—Yours of the 26th is received. In answer I will say that I have been troubled with minks, and the way I got rid of them was to set traps and catch them. The chances are that there are not more than one or two minks which visit your ponds, and if you do not kill them they will kill every trout in them. One or two mosquitoes will bother you all night if you keep brushing them off, but if you let them light and then take sight and kill them sure you will not be troubled any more. It is the same with mink or rats. I keep traps set about the State ponds all the time, and when any vermin visit them they get caught. Mink are great travelers. A number of years ago I was fishing through the ice in the North Woods for salmon trout. I had a pond that I kept live bait in. A mink with one fore foot gone got in my pond one night and killed nearly all my bait. The next day I saw his track twenty miles from the pond, and the next night after I caught him in a steel trap in my pond. I have caught four mink this winter in the neighborhood of the State ponds. No fish preserves are safe without traps. A good rat dog is a good thing to have about your premises, and all kind of vermin—including burglars—know every house that keeps a good watch dog. Yours, SETH GREEN.

[Perhaps minks are the cause of many depleted ponds which are supposed to have been poached.—Ed.]

Natural History.

A FIGHT FOR LIFE.

EDITOR FOREST AND STREAM:

I once witnessed a singular contest in strategy between a duck and an eagle, which may interest your readers. My friend and I were duck shooting upon the lakes in Northern Wisconsin. We were shooting from a railroad bridge that crosses the northern end of Lake Beau de Mort, through which flows the Fox River on its way to Green Bay. Our method was to conceal ourselves as much as possible by crouching low upon the stringers and lower timbers of the bridge, and drop our game as it flew over us within easy range. It was a beautiful autumn morning, and I had just fired my first shot, winging a blue bill, which dropped in the water a few rods above the bridge. I was just about to complete my imperfect work by giving the duck the contents of my remaining barrel, when I was startled by a most unusual sound. The air quivered with the rush of lordly wings, and, almost with the rapidity of lightning, a magnificent bald eagle, swooping from his flight, darted for my wounded duck. But with an equal celerity the duck disappeared beneath the surface of the water. And then began one of the most interesting displays of sagacity, and determined contests for food on the one hand and life on the other, that it has ever been my fortune to witness. It lasted for over an hour and a half, and although my friend and myself could have killed both the eagle and the duck at pleasure any time during the contest, we scented ourselves on the bridge and watched with peculiar interest the most singular scene which followed. The instinct (shall we not call it reason?) manifested by both parties was most remarkable.

It is a well-known fact that when you essay to capture a winged duck from a boat that it will seek to preserve itself by diving; and in such cases will remain under the water for a very long time, and when coming to the surface will be far away from your boat, and that frequently in the rear, having passed under you; so that it requires a skilled boatman, as well as very watchful hunter, to capture a duck even when winged.

In this case the duck apparently reasoned that the tactics adopted when pursued by a hunter in a boat would not be entailed, since in that case it might come to the surface immediately beneath the talons of its deadly foe. It further seemed to conclude that there was but one spot absolutely safe, and that was the one on the surface which it had just left, since the momentum of the eagle in his flight would not suffer him to pause at that spot, but would necessarily carry him beyond, so that if the duck should return almost immediately to that spot he might replenish his wasted breath in safety. Whether so reasoning or not, such, at all events, was the course pursued, and no sooner had the eagle darted over the spot than the duck would immediately reappear in almost the exact locality. Nor was the sagacity displayed by the eagle any the less interesting. He adopted a great variety of tactics and method, and pursued them with untiring zeal. At times he would place himself so near the surface that his great out-stretched wings would almost dip the water, and moving slowly, noiselessly and stealthily along, precisely like a cat, would try to steal upon his prey. When he thought he had approached as near as he could in this way, he would dart like a flash, with his great claws distended ready to seize his victim. Then, again, he would place himself in the zenith of the duck and fall, rather than dart, but still with astonishing celerity. Sometimes he would fly listlessly about, as if he had given up the chase, and as much as to say he did not care much for duck anyhow. Then, suddenly from this listless mood he would bound with electric rapidity. Then he would make a succession of darts, one following the other with the greatest celerity, wheeling and bounding as if he would not allow his duckship a moment to recover breath, and so tire him out. After something over an hour of this maneuvering he seemed to tire of the contest, and perching himself upon a neighboring tree sat perfectly motionless. Supposing he had given up in despair, we resumed our sport. But scarcely had we begun, when the same "whurr" filled our ears as at the first, and the contest was renewed with ten-fold vigor. He used less strategy now, but more bull-dog pertinacity. It seemed to have determined to "fight it out on that line if it took all summer."

And now another singular fact appeared. The duck, which at the beginning appeared to have a mortal dread of his foe, gradually grew quite bold and reckless. Alas! how danger, like vice, "seen too oft," makes us lose our caution. Many a poor life and soul is lost because of this. It was that proved the ruin of my poor duck. Instead of seeking safety early, as he had done, he grew reckless, and would wait the quite near approach of his foe before he made his plunge. At last—there always has to be an at last—he waited just a moment too long, and the sharp claws pierced his back ere he had gotten sufficiently beneath the surface, and he was borne off in triumph.

It was with a feeling of regret that we noted the issue. For although we ourselves were taking duck life without compunction, and although this one had his organ of flight broken, so that never again could he sail with companions over forest or stream, yet we felt that such a noble struggle for life deserved a better fate than the furnishing of a breakfast, even though that breakfast was for the lordly eagle.

J. H. WALKER.

For Forest and Stream and Rod and Gun. ACCIPITRICE.

Quails are the natural food of hawks, and a hawk which is large enough to catch a quail will lose no opportunity to do so. For this we should not blame him. We can simply pity the unfortunate quail. But the latter is also the natural food of man, and since the hawk respects no close season he has come to be looked upon as a lawless poacher and marauder, to destroy whom at any time is to deserve well of one's country. But this is not so easy. No bird of prey in this part of the country, in the enjoyment of freedom and reasonable self-respect, will permit an armed pedestrian to cultivate a closer acquaintance than that which may be formed at the distance of one hundred and thirty-seven yards at the very least; and since that range is one to which the ordinary shot gun does not attain, even the most careful and cautious of approaching sportsmen is tolerably certain to see the Fox-y rascal get away Scott free. There's nothing Greener 'bout him. (Next.)

But there is a way to secure him, and thus preserve the lives of the survivors of those splendid coverts which afforded you such sport last November, most of whom will fall victims, one by one, to his active rapacity.

In driving along a country road at this season, one frequently sees a large hawk sitting upon a tree, either at the edge of the woods, or in the middle of a field, but often quite close to the road. To one he is not at all alarmed at the approach of the buggy, and "still keeps on continuing to remain staying in the same place without moving" long after it has passed. "By jingo," you say to yourself, "if I only had my gun!" So the next time you have occasion to drive out you take it along, and maybe you don't see any hawks, but you expect every moment to do so, which mild excitement relieves the monotony wonderfully.

The following day you forget your gun, and pass within thirty yards of three or four big fellows. But the next time, with your No. 10 by your side and half a dozen cartridges (No. 4 shot) in your pocket, you

are prepared to attack the most savage hawk that ever clawed a dog's nose. Before you have driven a mile you notice a large, dark object perched upon the dead limb of an oak tree at the very edge of the road, about 200 yards ahead. There he is, sure enough. Pop in your cartridge; click—you are loaded. Now, look out, Nearer and nearer; only fifty yards. He doesn't stir—feels lazy after his breakfast of quail, no doubt. Bring your horse to a walk. Don't shoot yet; take it easy—he won't fly. Thirty yards—twenty-five. "Whoa, Dolly." Now—bang! Down he comes, stone dead. Dolly behaved well. Started a little, snorted a good deal, pawed the ground, but didn't budge from her tracks. Get out and pat her on the neck. "Good girl." Now pick up your hawk. Isn't he rouser! Four feet at least from tip to tip. What a bill he has, and such claws! Good bye to the quail he goes for. Well, throw him into the buggy and get in yourself. Off you go. Hark! What is that? A series of shrill protracted sounds, something between a whistle and a scream, comes from somewhere not far off. Can that be another hawk? Yes, there he sits on that leafless persimmon tree in the centre of a neighboring field. There was a covey of birds in that field last month, and some of them are probably about yet. Fine ones they are, too. That hawk knows it as well as you do, for he has made a square meal of one that very morning. But he is beginning to feel the want of a little exercise, or a trifle peckish again, and the scream you just heard was as much as to say that he is going on the warpath. His yellow breast shines in the sunlight, and with all his feathers ruffed up to absorb the warmth, he looks as big as an eagle. Doubtless he thinks himself secure in so commanding a position—but what is this? A horse and buggy have entered the field where the bars are down, and are coming directly toward him. He recognizes them at once. They passed him the other day when he was admiring the landscape from the top of a cedar tree at the roadside. The man in the buggy is the same who said "By Jingo" as he went by—he remembers it perfectly—and is, no doubt, coming to gather persimmons. "Well, he's welcome to them, I'm sure," says he to himself, "I can't abide 'em. But I won't play dog in the manger, so I'll be off." And with a preparatory shake, to settle his plumage, he spreads his wings, glides off into the air, and—bang!—to his astonishment, he comes to the ground the most badly demoralized specimen of ornithology this side of Plevna. A-ha! that was a good shot—forty yards if an inch. Get out—Dolly will stand—and go up to him. As you approach he raises himself on his legs and tail outspread, and with open beak and crest erected, is ready to give battle on the spot. "What a *spu-LENDID* eye!" he has (as J. Steele Mackaye once said of an owl I had shot), and yet how wicked and defiant as thus he stands upon the defensive. In spite of a broken wing there is plenty of fight in him yet. Involuntarily, you feel a sort of pity for him—a pity born of the pink cheeks—and you half wish that you had either killed him outright or missed him altogether. But, as you advance your foot to turn him over on his breast, he wheels savagely, and, as quick as lightning, strikes his needle-pointed talons through your boot. Away goes your sympathy; and stepping back a few yards—or, rather, limping back—you convert that hawk into a first-class lead mine with the utmost promptness and satisfaction. K.

### THE TRUE BRANT IN KANSAS.

NEOSHO FALLS, KANSAS, Dec. 5, 1877.

EDITOR FOREST AND STREAM:

Referring to Mr. Greene Smith's article in your paper of the 15th ult., under the heading "Brant," and to your request thereunder, I take pleasure in informing Mr. Smith that he will find the true brant, *Branta bernicla*, in the collection of the State Board of Agriculture at the capitol, Topeka, Kansas, in charge of its secretary, Hon. Alfred C. Gray. The bird was skinned and mounted by O. S. George, Esq., who, last month wrote me (from San Jose, Cal., where he now resides) that the brant was killed in February, 1873, at Topeka, by C. Armstrong, on the Kansas River, just below the A. T. and S. F. R. R. bridge.

I also take the liberty to copy from letter of January 26 last, from Prof. F. H. Snow, State University, Lawrence, Kansas, viz.: "In regard to the brant goose: While duck shooting in the late fall of 1867, about four miles south of Lawrence, my companion (a friend from the East) amused me by raising his gun and firing at a large flock of geese flying at a great height. I should not have thought of shooting at such low range, but I was astonished to see one of the birds drop dead at his feet. This I identified as the brant goose, *Branta bernicla*. Its occurrence way of course have been exceptional, and I should be glad to see other captures made." I feel confident from their peculiar flight (that is, occasionally bunching up) that I have seen a few flocks, but were flying so high I am not positive. I have also been told by several sportsmen, "old bay shooters," that they have seen and shot them here, which I am inclined to believe. Still, as the Snow, Hutchins and white-fronted geese are all known as brant, I would not give or take such evidence as conclusive. If the statements of Dr. Cones and Prof. Snow fail to convince Mr. Smith that the *Branta bernicla* do occasionally come inland, I would respectfully suggest that he write Mr. Gray, who will, I think, take pleasure in sending him the bird. N. S. Goss.

RUFFED GROUSE'S DRUMMING.—A correspondent writes from Nottingham, N. H., concerning the drumming of the ruffed grouse: "I have killed a great many while in the act of drumming. They seem to stretch themselves up as high as possible, bringing their wings full forward and not apparently against their side. I do not think it is a love note, for they drum after they have paired off, and while the mate is laying and hatching. I have frequently seen the king partridge spoken of by your correspondent. I have frequently seen them strutting in the same way and thought no more of it than to see a cock turkey do the same."

THE SEXES OF WHITEFISH.—A point to which Fred Mather, Esq., recently called our attention respecting certain characteristic marks on whitefish, last week evolved from Prof. Milner, of the Smithsonian Institution, some positive and desired information. The pursuit of the subject has now brought to light a fact, undoubtedly not generally known, that these self-same characteristics, or the lack of them, indicate the sexes in the fish. We quote the following letters as authority on this point:

KELLEY'S ISLAND, Ohio, Dec. 31, 1877.

MR. EDITOR—In your issue of the 13th, Mr. F. Mather asks if an elevation of the centre of each scale, making a ridge on the lateral line of the scales, of the males of the whitefish (*C. alba*) has been observed in this country. It has, and for years, and here (the centre of the whitefish trade) it is the sign by which the he fish have been selected by buyers. Females have slight ridges, males much greater. It is more noticeable by feeling than by sight. Yours, CHAS. CARPENTER.

WINNIPEGO, Manitoba, Dec. 25, 1877.

EDITOR FOREST AND STREAM:

I observed a note from Mr. Mather, in your issue of the 13th inst., regarding a peculiarity in the scales of the Prussian whitefish during

the spawning season. Having observed a singular phenomenon on the whitefish taken from the large lakes in this Northwest country, it may be interesting to you to learn that here also in the fall, during the spawning season only, is that remarkable rise of the centre of each scale observable. I do not remember now whether both sexes are affected in a like manner. I cannot be mistaken, as I am familiar both with the appearance and flavor of this delicious fish, having netted numbers of whitefish the whole year round. Here the whitefish is an important item of food to the hunter and trader, and many of our native settlers can be seen encamped on the lake shores about the time of the full moon in October catching this fish, and it is no rare feat for one family, working five or six gill nets, to "speak" (i. e., to hang from the tall on a stage) two thousand fine whitefish.

In haste, yours truly,

CLYMENT SMITH.

TO "ELK."—Our attention has been called by a correspondent to an article which recently appeared in these columns entitled "Moose Hunting in Nova Scotia," in which the writer speaks of having killed a moose which was "a nearly pure-bred elk." No little confusion has arisen, both in the books and among sportsmen, from the fact that the elk of Europe, *Alces alces*, is the moose of America, while the elk of this country, *Cervus canadensis*, is a totally different animal, closely related to the red deer of Europe. It is therefore often difficult to know of what species writers are speaking when they give only the English names of their game. In this case, however, our correspondent has spoken of moose, and then almost immediately speaks of a "nearly pure-bred elk."

The American elk or wapiti is not found in Nova Scotia, and if it were we should never see a hybrid between it and the moose. Such a *melange* is quite unheard of, although in the mountains of the Northwest elk and moose are often found occupying the same range.

Will "Elk" help us on this question by explaining what he means by "a nearly pure-bred elk."

## Woodland, Farm and Garden.

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, SEO. N. Y. HORTICULTURAL SOCIETY.

### HOUSE PLANTS.

IN the houses of the poor as well as in the parlors of the rich do we see the love of these bright gifts of nature manifest itself—often in the former case the only indication of any appreciation of the beautiful. There are few indeed who do not love plants in their homes, and many more would have them were they not deterred from doing so, either by their fear of being unsuccessful or by their lack of success in the past. Many writers also on this subject begin by informing their readers that no person need attempt a window garden, except it be ivy and ferns, unless they can have them in the full sunshine, and likewise that the heated air from a furnace, and more especially the burning of gas in the room, is death to the plants. Doubtless they require as pure an air as possible, and while admitting that foul air, etc., is injurious, probably the most fruitful cause of ill health in house plants is *dust*. A plant breathes through myriads of pores existing more or less numerously in the foliage, according to the species. The fine dust always floating in the air of living rooms settles upon the plants, and just so much as the pores become clogged, so much is the health of the plant affected by the stoppage of one of its vital functions. Sponging with lukewarm water, or removing the plant to a sink or bath tub and showering the whole plant liberally with a sprinkler, is an easy remedy, and the increased healthiness of the plant will soon show its appreciation of the generous treatment. Another fruitful cause of disappointment is the vitiated air of our living rooms, more especially where the life of the air is dried out of it by the red hot iron of our furnaces or stoves. From such modes of heating houses gases escape more or less contaminating the air. Where gas also is used a large percentage escapes unconsumed into the air of the room. Evaporation of water in stoves and furnaces is of great benefit and should be universally adopted, and the temperature of the room allowed to fall at night to from 40 to 45 deg. F. if possible. For the generality of plants plenty of light is necessary—sun-light if possible—and the more direct the light the better; still numbers of plants, such as Palms, Ferns, etc., can be grown in a northern exposure, and do better than if in a sunny window, care being taken to place them as close to the glass as possible, and to turn them frequently so that all sides may have equal exposure. As for soil, for most plants a rich, light soil is suitable which can be made up of the top spot from an old pasture; or, still better, the sods from the road-side with a liberal admixture of wood-mold, rotted manure and good sharp sand placed in a heap, thoroughly rotted and incorporated by being turned over and mixed up a few times. Any good, sweet earth—not sodden or sour—will grow common plants well, but it is better to have some really good soil on hand, or it can be had from any florist when required. If any plant requires extra feeding—and many toward spring will be found to do so—weak liquid manure made of guano, salts of ammonia or cow manure and soot, may be given once or twice a week, to the great benefit of the plants. Provision should also be made by ample drainage for the escape of all superfluous water, and where saucers are used all water which drains off should be emptied. Watering should always be thorough. More plants get unhealthy by being watered in little dribbles than by any other way. Give a good soaking, thoroughly wetting all the soil until the water runs off, and then do not water until the plant is dry. As

previously mentioned, cleanliness is of the first importance. Sponging with lukewarm water, or showering the whole plant copiously, will do much to keep the plants in good condition, the frequency of which will, of course, depend upon the necessities of the case or the nature of the plant. Insect enemies are numerous, though easily kept in subjection by constant watchfulness. The aphid, or green fly, and the brown and black thrip can be destroyed by tobacco smoke; but the best and most simple method of keeping house plants clear of all manner of insect life—red spider and micaly bug included—is to dip them occasionally in water at a temperature of 130 deg. to 140 deg. F. This not only cleans the whole plant thoroughly from dust, but, without hurting it in the least, kills all insect life—eggs and all—on it. Next week we will enumerate a few of the plants we have found most suited for house culture.

### For Forest and Stream and Red and Gun ORIGIN OF THE VARIOUS CLASSES OF STRAWBERRIES.

[Concluded.]

FRAGARIA GRANDIFLORA.—This is indigenous in Suiam and, consequently, on the Atlantic tropical side of S. America. It has often been confounded with the preceding species *Chiloensis*, but the distinctive characteristics of smaller, narrower, more elongated and delicate leaves, upright habit of growth, tender constitution, and the richly concentrated pine-apple flavor of the fruit, which is conical, and has a decided neck above the calyx, are sufficient to distinguish it as a different species. From its sensitiveness to our extreme frosts in winter and droughts in the heat of midsummer the varieties are difficult of cultivation with us, but are successfully grown in the mild and damp climate of Britain. Even there, however, a moist and protected situation has to be chosen to accomplish real success. This species has furnished the varieties known as the Pine Apple Class, which are quite distinct from what are called Pines by some British authors. It has not entered largely in the mixture with the other classes, the object being the obtaining of fine large fruit with hardy and vigorous growth and free bearing habits, and, as the *Chiloensis* has these good properties it has been accepted and formed more of the base in the march of improvement. It is probable, however, that a class of strawberries of very exquisite flavor, and comparatively hardy withal, might be obtained in a few generations by impregnating some of our most robust and hardy varieties with one of the best of this class. In connection with this, and in proof of the supposition, allow me to relate an example which came under my own practice some twenty-eight years ago. I had at that time what was known as Burr's New Pine and the Iowa Seedling planted along side each other. Let it be understood that the Pine is a delicate grower and the Iowa vigorous and hardy. Knowing from former experience that, if a robust constitution is required in the offspring, when artificial fertilization is practiced, the good grower ought to be the mother plant, and that the flowers and fruit are more likely to resemble the father, I dusted, from time to time, the pollen of the Pine over the flowers of the Iowa. The after result was, a number of the seedlings bore evident proof of the success of the operation, but only one was of superior merit, and this variety is in being at the present day as healthy and vigorous as ever. The plant is very hardy and a most constant and abundant bearer; fruit large, globular, with a decided neck above the calyx, which is one of the distinguishing features of the Pine; peduncles long and stout supporting the fruit well above the foliage. The flavor partakes of the Pine sufficiently to make it spicy and sprightly in connection with the sub-acid of the Iowa, and the aroma is strong enough to scent a room when a dish of the berries is introduced. It is, however, too soft and light colored as a market berry and only good for private cultivation.

FRAGARIA ELATIOR.—Exclusively a native of Northern Europe, and the species that has furnished the class known as *Hautbois*, of which there are some half dozen kinds, each having, perhaps, as many synonyms. The distinguishing characters of this class, and the only ones which recommend it for cultivation, are hardness and the peculiar musky, sweet flavor which more or less pervades all the varieties. The fine gone by the *Hautbois* were very much grown, but they are now superseded by the large and fine kinds. There is a tendency in the flowers of this class to become dioecious—that is, to bear male flowers on one plant and female on another; consequently it is necessary, to be sure of a perfect crop, to have a few of the male plants distributed among the fertile ones; but care must be taken that the former do not gain the ascendancy, as they are more luxuriant and produce runners in greater abundance than the latter. By paying attention to these points the *Hautbois* are abundant bearers and will give satisfaction to those who may relish a flavor akin to sugar in combination with musk.

If there was formerly any mixture of this with the other classes of by-gone times it is pretty much obliterated in the present, although, very likely, there may be a slight taint in solitary cases, as the *Hautbois* used to be more generally cultivated. The Hovey's Seedling, a decided female of American origin, and Cuthill's Black Prince, an English kind, for instance, may have been so constituted, for they have, to some extent, the appearance in growth and fruit to this class; and it is probable that this intermixture was the cause of said kind showing a tendency toward the uneven balance between stamens and pistils, more particularly so as the *Hautbois*, being more generally grown, the admixture may have happened without human aid or the knowledge of the cultivator, simply by the aid of insects and the readiness with which cross fertilization takes place. Some persons will remember the disputes which used to occur respecting male and female strawberries, and what prejudiced and angry discussions were indulged in without the combatants on either side going down to bottom facts and taking all the circumstances into consideration. We all know that hereditary taint may lie dormant through many generations, may never develop its entirety under the conditions which existed from its embryo stage, but if said circumstances be changed said taint may display itself, and without a proper allowance being given, and the physiological bearing being understood, the most erroneous conclusions may be arrived at. In our present instance we have some proof of this argument in the case of Cuthill's Black Prince mentioned above. This variety bears unmistakable resemblance tending toward the *Hautbois*, and although the color is considerably darker than the latter, the former has partially the flavor of *Hautbois*, and hence the peculiarity which recommended it in its day. Another

singular coincidence connected with this variety is its tendency to produce a second light crop of fruit. The same is the case with the kind known as Profibus Hautbois, also what is still more interesting, the Black Prince, in the damper and milder climate of Britain, is hermaphrodite, while here, so far as my experience goes, it is frequently female with abortive stamens, and requires the aid of pollen from another variety to fertilize its incipient fruit. This difference may be accounted for by the above explanation, viz., that the taint of the Hautbois has lain dormant, so far as the reproductive organs have been under original influences, but the difference of climate, etc., has eliminated and brought out these latent properties in an abnormal degree. I do not know the history of the recently introduced variety, Black Defiance, but suspect that some trifle of this constitutional peculiarity is inherited by it. I only surmise this, however, from its tendency toward the qualities here spoken of.

FRAGARIA COLLINA.—This species is a native of the mountains of Europe, and constitutes what is known as the Alpine Class. The habit of plant is dwarf, approaching to prostrate, producing an abundance of runners; leaflets small, oval, sharply serrate; fruit small, conical, bright red or amber white in the several varieties; seeds very prominent; flavor sub-acid, somewhat tame. Fragaria collina retains its normal characters under cultivation, and is less prone to run into varieties than any other one of the genus—so much so that we have no reliable evidence of its having influenced any of the almost endless variety produced from other sources. Even within its own sphere there are only some four, or perhaps five, distinct kinds, although any number of synonyms with "high fallutin" names are reckoned on, particularly so amongst the cultivators on the continent of Europe. These varieties are the Red and White Alpine, known in France as Des Alpes de Quatre Saisons a fruit rouge, and Des Alpes de Quatre Saisons a fruit blanc, and the Red and White Bush Alpine, the two latter having the peculiar property of never producing any runners, but in every other respect identical with the first mentioned. This, however, is sufficient to constitute them as distinct varieties of the same species, and so we save them. A peculiarity of this species is its long continued blossoming and bearing of fruit, which lasts from June to November in our latitude, hence the French epithet Quatre Saisons, or four seasons. It is on account of this quality that any of the varieties are worthy of cultivation, but it is sufficient to give them a place in any collection where a continuation of the strawberry season is desired.

A class of overbearing strawberries has long been a desideratum. We have repeatedly had it heralded that such an acquisition had been obtained, but, so far, the pretension has only ended in disappointment and proved to be nothing more than one of the varieties of this species which some ignorant enthusiast, or, worse still, some contemptible rogue, has tried to foist upon the credulous public. It is possible, however, that this desirable goal may be arrived at, notwithstanding the fixedness of character here inherited, if some intelligent and persistent operator would, through a series of generations, persevere in fertilizing this class with some good variety which has a tendency to more than usual long continued bearing, or, at times, shows a disposition to produce, in a natural way, a light second crop. I would here hint the black defiance would be a very likely one to practice with, as it is occasionally inclined in this manner. If this could be accomplished the quality of the insipid alpine would be improved and the long continued bearing probably retained. Without the assistance of another kind the alpine may be improved by sowing, from year to year, seeds of the berries, the which, however, will retain the character of the parent.

If we examine into the fixedness of organism as found in this species it appears very singular compared with the readiness of the others to fertilize with each other, but when we come to search closely into all the details and mode of growth, it will be seen that although this is what may be called a true strawberry there is nevertheless an approach toward an allied genus of fixed character, viz.: Potentilla, and consequently, Fragaria collina in connection with F. indica and Dobriaria fragarioides (Mich.), both of which produce dry and hard fruit, may be considered as one of the almost imperceptible links in creation which are universal.

A recapitulation of the above arguments will stand thus: The so named Scarlet Class has originated from Fragaria virginiana directly; excepting in a few varieties, perhaps, there may be a slight taint of F. vesca.

The most popular and best quality of Europe, known as Chills, Pines or Carolinas has proceeded mainly from Fragaria chiloensis with some mixture of F. vesca and, possibly, a trifle, in a few of the varieties of F. elatior and F. grandiflora.

Our American large, fine, and now excellent Prize Class has been produced from the sub-species Fragaria tovarensis in connection with the European kinds, and consequently in this indirect way the varieties contain a portion of F. chiloensis in their structure.

The highly scented Pine Apple class is direct, or nearly so, from the Surinam species, Fragaria grandiflora.

The Hautbois Class is direct from Fragaria elatior, and the Alpine Class absolutely from Fragaria collina.

In presenting these few remarks I do not wish it to be understood that every detail can be vouched for in its entirety, but, from long experience and much investigation, I am convinced that further search and inquiry by more competent authors will find the facts to agree in the aggregate with this record.

West New Brighton, Staten Island. WM. GIBBERTON.

PIGEON SHOW.—The National Columbarian Society opens its third annual exhibition of fancy pigeons on the 16th inst. at the Aquarium. Extensive preparations have been made to insure the success of the show, and there is every indication that it will embrace a more valuable and extensive collection than ever before. The society have offered a liberal list of premiums, to which is added a special list by Messrs. Reiche & Brother, the proprietors of the Aquarium, amounting to \$2,000. There are to be sixteen classes—Pouters, carriers, barb's, short-faced tumbler's, owls, trumpeters, fan-tails, turbit's, Jacobins, priests, swallows, nuns and Antwerps. Entries may be addressed to the Secretary of the Columbarian Society, Mr. I. O. Thurston, Sing Sing, N. Y., or Mr. Lewis Burlington, Cortlandt street, this city, and will close on the 11th inst.

ST. JOHN, N. B., RISING FROM ITS ASHES.—A friend writing from St. John, New Brunswick, says: "This city is being rebuilt marvelously, and brick and graystone will mainly, in the business part of the city, take the place of wood." The

means have come from three sources: 1. Latent or reserved capital of owners or else capital formerly employed in marine risks lying idle in the recent depression in trade. 2. From paid-up fire insurance. 3. From foreign sources on bonds and mortgages. The large number of carpenters, hardstone masons, bricklayers, etc., have come from Canada, Nova Scotia, in part, but mainly are skilled workmen from Boston, Portland and New York. Activity is everywhere manifested, while the mild weather and entire absence of snow is enabling the work of renovating St. John to make a great show. Whole streets are rebuilt with entire brick warehouses four or five stories high, the result of the energy in their own cause of the business men; but the public buildings, which must be the work of the Dominion of Canada, have not yet been commenced.

"Hey! Shine!" demanded an urchin of an astute stranger who was passing, and he thrust out his box and brush menacingly. "Hey! Shine!" mentally responded the philosopher, in a sort of half soliloquy. "Yes, that's it, my lad. Hey—shine. Make hay while the sun shines. That's right, sonny, you'll do," and he sauntered on, meditating upon the wisdom of the street boys of New York.

### The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed signs of suffering, etc.

### FOX-HUNTING IN NORTH CAROLINA.

THE Roanoke is now falling. Its waters, however, still cover the greater part of the low grounds. The destruction is immense. Not a fodder, oat or hay-stack left! Unfortunately I had gathered no corn, and cannot say what loss I have sustained. I fear dogs and teams will feel it and proclaim it the ensuing year by their lean and hungry looks. But I must make the most of it; repining is no remedy, and it is the philosophy of my teaching to be merry in adversity.

On Wednesday (Nov. 14) I carried my pack to Brodnax's that, on the following morning, we might have an equal and an early start. I rode a thoroughbred gelding, out of Sileck by Stevens, and directed my servant to stand on an eminence near Gaston with Lord Elgin as a relief. Brodnax was equally well prepared. He rode a thoroughbred mare, by Taxahin, and held a well-bred gelding in reserve. The catching of the old red was no trifling affair. He had too often baffled us singly and united for us to underrate his powers, and we had determined that this day should be honestly dedicated to him. We were awake long before the three crowing of the cock, and at day our breakfast had been made, horses saddled and dogs fed. Thus early we set out and rode rapidly to Gibler's Hill, the usual haunt of the old vixen. Leaning too near to the low-grounds we ran into a number of coons just as Brodnax's *Rekout* gave mouth half up the hill. Brodnax hurried to the coon fight and I to *Rekout*, with a goodly number of the pack. The fox was up and away. He flew down the Roanoke with a speed defying his pursuers. I followed close upon the pack, keeping above the line of their run and north of it. The fox kept down the Roanoke for some nine miles, and then abruptly turned back, making the same run up as down the Roanoke. As soon as the sound of the pack indicated the turn of the fox up stream, I halted near his going down track with the "peerless Vanity" and Aggy, by some accident thrown out, to ride the leading dogs. The sound approached nearer and nearer. I was just rightly posted to see both fox and dogs. In an instant a negro hollows: "Here goes the fox right to you." The pack was right upon him. I apprehended confusion from Vanity and Aggy. I hurried them to the pack with much earnestness and approached diagonally the fox's run so as to secure a united pack. All went well. Vanity and Aggy took the back end and ran it to the pack, then just emerging from the head of a thick branch by which a plantation road passed. This road the fox had jumped into ahead of the negro and ran up, and it was the same I induced Vanity and Aggy to run back into the pack some hundred yards. But Vanity had scarcely met the pack before she discovered her mistake, and whirled back instantaneously, and almost flew. Six of Brodnax's dogs jumped into the road from the branch nearly simultaneously, his *Rekout*, according to the calculation on the moment, certainly four feet in advance. I had only one with his six—Redbird, a yearling puppy. Vanity and Aggy had corrected their mistake, which put them in advance some ten paces only. I looked to my right and the great body of the pack had crossed the road at the head of the thick branch and were breasting the leading dogs, and in a style wise and artistic. But, unfortunately for them, the fox turned abruptly to the river, down a deep ravine, throwing most of them clear out, and the wind being adverse, myself out of hearing. But I knew my duty, and pushed forward with increased speed. Seeing a negro I inquired if he saw the fox and hounds. "Yes, yes, Mars'r Tom. They were certainly chatting to that fox." "Did the fox understand their language?" "Bless your soul, Mars'r Tom, he surely did. He run right up to me and didn't even look at me. He was in too big a hurry." "What colored dog came ahead?" "Nar one was head; all was dare, seemed to me, at once." I then put spurs again and soon regained lost time

and ground. This part of the run was witnessed only by myself. The other huntsmen had halted to do the riding at the upper end. I, however, overtook most of them and pressed for Lord Elgin, then in waiting for the upper race. I had, however, barely saddled him before Brodnax's horn admonished us that the race was over, and the old red fox had at last been caught, and that, too, in only one hour and forty minutes. One of our party was stationed at Vincet's Hill. I heard him give a tremendous cheer as the pack passed him. There Gen. Starke's Dolly was ahead, and kept it entirely across a stubble-field. Brodnax was still at Goble's Hill awaiting the return run. He took position to see the leaders. My Rodman was there ahead, running like a scared cur, and taking up the mill road, wrongfully drew off every dog, except Vanity and Dolly, both too self-reliant to be diverted from their course, crossed the road as the fox had done. The pack, however, swung around to their enchanting notes—treble and bass—and rather gained ground than lost. No one ever headed the pack after this or even saw the first dogs, as all was over before time and occasion allowed it. We all soon assembled to talk over the race, which of course was done in jolly huntsmen's style. A little negro boy seated on the top rail of a fence near by us, with mouth open and eyes wider, hallooed out as Brodnax pitched the fox down: "Dar now, dey done caught the old red." He was an old red in all truth. We did not weigh him, but his height was that of an average hound, say two feet, his teeth much worn, head quite grey, tail perfect with a very large white end, legs black, hind feet white to near the hock, belly blue as indigo and back red as ever red fox's was before. I cut off and expressed to Col. Skinner, at the FOREST AND STREAM office, the right hind foot, which I hope he received.

T. G. T.

### STUDY DOGS' CHARACTERS.

ALGONA, Kossuth Co., Iowa, Dec. 28, 1877.

EDITOR FOREST AND STREAM:

For twenty-five years I have been very much interested in the breeding and training of pointer and setter dogs, and have arrived at the conclusion that most men who breed and train hunting dogs do not make the business successful from the fact that they do not study their dogs. They do not understand them. One man may have good stock and yet do not breed good dogs for work, while another may have but a common, or even quite poor stock and yet he will raise fair dogs for the field. One understands his business the other does not. In order to breed good hunting dogs too much care cannot be taken in the selection of the slut and dog. I would never breed from a slut, or never use a dog that is, or ever was, in the least gun-shy. My breeders must love the gun. When they are young I want it to be natural for them to like the sound of a gun, and not have to train them to it. Both slut and dog must be good field workers. They must be good rangers; staunch when they find the game, and not continually making "false points." I dislike a dog that is always pointing without any game, and would not breed from one that was not sure in her points. Both slut and dog must be good retrievers, able to fetch a goose or duck out of the worst sloughs and always ready to go through ice and snow after wounded or dead game. I would have the weight of the slut between fifty and sixty pounds, weight of the dog over sixty pounds if possible. They must be good natured, not inclined to fight, yet able to protect themselves. I do not think it makes any difference about the color of your dogs. That may be left to a man's fancy. I prefer dark red dogs, as I hunt in an open country and shoot a great many wild geese and ducks. It is hard to keep a white, or light colored dog from being seen by the game.

Now, in regard to the breeding. You have a good slut and dog. When the slut is ready to take the dog take them both out where there is game. Hunt the slut till you find game; that is if it does not take over one half hour. Be sure and find game within that time if possible, so as not to tire the slut. Then take your slut in and hunt the dog the same length of time that you did the slut. After that the dog should go the slut at once. From that time till the slut has pups hunt her a little every day, but not more than ten minutes a day the last week before the pups come. Have her retrieve the birds shot over her in good shape. The last time my slut was with pups I shot a quail over her the day before they came. Every one of those pups would stand and retrieve at two months of age, and were as fond of a gun as most old dogs.

Now, about the training for the field. All do the first year I do to house-break and teach them to carry and retrieve. Be careful that a young pup does not mangle anything that he is retrieving. I use a newspaper first, and after he carries that well take a dry wing. When I am training a dog I never speak unless I want the dog to do something. Continually talking to a dog will make a fool of him. He will not know what you want him to do. When the pup is a year old I take him into the field with my old dog (a great ranger and a very staunch dog). When the old dog comes to game I motion for him to down, when I have the young dog come up and make his point. I do not allow him to start the bird, but start him myself, and am careful that the dog does not start at the same time. Make him stand still. Do not shoot the bird, but allow it to go away. I go through with the same work three or four days till the young dog is very staunch and will stand on any game birds. After that I am ready to kill a bird over the pup. Be sure and kill the bird dead. Then let the pup retrieve it. After that I have no trouble; my pup is ready for work. I always allow my dogs to range just as far as they will go. I think prairie chickens are the best birds to train dogs on. A man can always see his dog and know what he is doing. My old dogs will stand just as well five hundred feet away as within twenty, and if the bird starts will drop and remain there till I make a motion for them to go on.

J. G. SMITH.

### PRIZES AT THE ST. LOUIS BENCH SHOW.

DIVISION 3—SPECIAL PRIZES.	
Class —Best brace of native setters of any strain, to be owned by exhibitor, a fine double breech-loading gun, donated by Nichols & Lefever.....	\$200
Class —Best brace of English setters, imported or native, owned by exhibitor, a fine double breech-loading gun, donated by Parker Bros.....	175
Class —Best brace of Irish setters, imported or native, owned by exhibitor, a fine double breech-loading gun (Greener's make), donated by Simmons Hardware Co., of St. Louis.....	100
Class —Best brace of Gordon or black and tan setters, imported or native, owned by exhibitor, fine double breech-loading gun, donated by Remington Arms Co., through Brown & Hilder, St. Louis Agents.....	100
Class —Best brace of pointers, any size, imported or native, owned by exhibitor, a handsome oil painting, game piece, painted and presented by the St. Louis artist, Miss Josie McKellops.....	150
For the second best brace of pointers, any size, imported or native, owned by exhibitor, a fine quality velvet or corduroy shooting suit, to order of the winner, made and donated by John V. Medlar, St. Louis.....	50
Class —Best pointer dog or bitch, any size, imported or native, a rich silver tea service, donated by F. A. Durkin, St. Louis.....	75

- Class —Best pointer dog, any size, imported or native, for stud purposes, to be shown with two of his get, handsome silver plate, donated by B. Mead & Co., Jewelers, St. Louis..... 50
- Class —Best pointer bitch, any size, imported or native, to be shown with two of her progeny, a fine oil painting, sporting scene, painted for the purpose, donated by George J. Mack, St. Louis..... 50
- Class —Best native English setter dog, a handsome silver cup, donated by F. O. de Luz, agent for Spratt's Patent, London..... 25
- Class —Best English setter dog, imported or native, for stud purposes, to be shown with two of his get, handsome silver plate, donated by L. Bauman & Co., Jewelers, St. Louis..... 50
- Class —Best English setter bitch, imported or native, to be shown with two of her progeny, two prizes, viz., 2,000 paper shells, presented by St. Louis Patent Shell Co., value \$20, and one case fine powder, presented by Lafin & Rand Powder Co., value, \$20, total value..... 4
- Class —Best Irish setter dog, imported or native, for stud purposes, to be shown with two of his get, handsome silver wine stand, with three decanters, donated by J. P. Capelle, Jeweler, St. Louis..... 50
- Class —Best Irish setter bitch, imported or native, to be shown with two of her progeny, a handsome English gun case, presented by H. Folsom & Co., St. Louis..... 40
- Class —Best Irish setter dog or bitch, imported or native, special—not yet named..... 4
- Class —Best English setter dog or bitch, imported or native, a fine gold watch, presented by Mermod Jacob & Co., Jewelers, St. Louis..... 100
- Class —Best Gordon or black and tan setter dog, imported or native, for stud purposes, to be shown with two of his get, a handsome silver wine stand, presented by a member of the association..... 40
- Class —Best Gordon or black and tan setter bitch, imported or native, to be shown with two of her progeny, a set of sporting works, presented by St. Louis Book & News Co..... 25
- Class —Best native Irish setter dog or bitch, a handsome silver cup, presented by a member of the assoc'n..... 25
- Class —Best native setter pup, dog or bitch, of any strain, under one year old, a fine shooting suit, presented by W. H. Holabird, Sportsman's Clothier..... 25
- Class —Best Irish water spaniel, dog or bitch, fine silver cup, presented by a member of the association..... 25
- Class —Best Irish water spaniel, dog or bitch, the get of Sinbad or King of the Rivers, a fine silver cup, presented by J. H. Whitman, Chicago..... 20
- For the second best, as above, another cup, same donor..... 10
- (Mr. Whitman's dogs not to compete in this class.)
- Class —Best Chesapeake Bay dog or bitch, short or long-haired, a complete rubber suit, presented by Geo. B. Thomson, agent Goodyear Rubber Co..... 25
- Class —Best Beagle dog or bitch, a fine silver cup, given by a member of the association..... 25
- Class —Best couple of foxhounds, a set of Frank Forrester's works, given by the Gray & Baker Book and Stationery Co., St. Louis..... 20
- Class —Best fox terrier, dog or bitch, Havana cigars, given by G. B. & S. H. Cigar Dealers, St. Louis..... 25
- Class —Best black and tan terrier, dog or bitch, large size, a fine silk umbrella, donated by John W. Loader, Hatter, St. Louis..... 15
- Class —Best black and tan terrier, dog or bitch, small size, one dozen fine white shirts made to order of winner, donated by Geo. T. Fowler, dealer in Gents' Furnishing Goods, Fort Wayne, Ind..... 42
- Class —Best Yorkshire terrier, dog or bitch, a fine silk hat to order of winner, donated by M. J. Steinberg, Hatter, St. Louis..... 10
- Class —Best shepherd dog or bitch, smooth or rough, special—not named..... 10

A number of other specials are to be added to the above list.

DIVISION 4—SPORTSMEN'S GOODS.

- Class 1—Best breech-loading double-barreled shot-gun of any maker, convenience and strength of action and general workmanship considered, a handsome gold medal of the association, suitably engraved, cash value..... 25
  - Class 2—Best gun, as above, of American make..... 25
  - Class 3—Best gun, as above, any maker, not to cost over \$250 retail, silver medal..... 20
  - Class 4—Best gun, as above, any maker, not to cost over \$150 retail, silver medal..... 20
  - Class 5—Best gun, as above, any maker, not to cost over \$100 retail, silver medal..... 20
  - Class 6—Best gun, as above, any maker, not to cost over \$50 retail, silver medal..... 10
  - Class 7—Best target rifle, as above, any maker, silver medal..... 10
  - Class 8—Best sporting rifle, as above, any maker, silver medal..... 20
  - Class 9—Best shooting suit, coat, pants, vest and hat or cap, convenience and quality of goods considered, silver medal..... 10
  - Class 10—Best shooting suit, as above, not to cost over \$25, silver medal..... 10
  - Class 11—Best hunting boat, convenience, strength and lightness considered, silver medal..... 10
  - Class 12—Best fishing boat, as above, silver medal..... 10
  - Class 13—Best Hunting boots, adapted for field use, silver medal..... 10
  - Class 14—Best display of fishing tackle, silver medal..... 10
  - Class 15—Best fishing rod for general use, strength, lightness and workmanship considered, silver medal..... 10
  - Class 16—Best specimen of taxidermist's work, silver medal..... 10
  - Class 17—Best display of taxidermist's work, birds and animals, silver medal..... 10
- All the medals provided for in Division 4 are made to the order of the Association in a very handsome style, and cost their face value, the bills for which will be shown.
- Class 13—For the best general display of fire-arms, including sportsmen's goods of all kinds, a handsome gold medal, suitably engraved..... 25

MR. LINCOLN AS SUP'T. OF THE BOSTON BENCH SHOW.

DETROIT, Mich., Jan. 5, 1878.

EDITOR FOREST AND STREAM AND ROD AND GUN:  
 Sir—I have received my appointment as Superintendent for Boston Bench Show, held under the auspices of the Massachusetts Kennel Club, to take place during the last ten days in March, dates not definitely fixed. Dr. Foster, the Secretary, writes me they intend giving the show upon a first-class scale. Everything will be done for the care and comfort of the dogs, and one of the most liberal prize lists ever yet given will be offered. The merchants of Boston and other sportsmen will give liberal special prizes. They hope to receive the hearty support of all true sportsmen, and assure them in return the show will be given as a genuine sportsmen's show.

Yours truly,  
 CHAS. LINCOLN.  
 [We congratulate our Boston friends in having secured Mr. Lincoln's most valuable services.—Ed.]

MASSACHUSETTS KENNEL CLUB—Boston, Jan. 7, 1878.—I understand the Bench Show of the Massachusetts Kennel Club is to be given in the building lately occupied by Jordan, Marsh & Co., for their wholesale store. Should this building be used, it will necessitate having the Exhibition on different stories. The location is admirable, being directly in the heart of the city. There is every reason to believe that we can have a grand Exhibition of Dogs. The names of the gentlemen connected with the Club will be a guarantee to sportsmen that everything will be conducted in the most honorable manner.  
 HUB.

SCHNAPPS AND GRETCHEN.—Dr. Twaddell's thoroughbred Dachsunds Schnapps and Mein Gretchen have become the property of Dr. E. L. Tweedean, of Saranae Lake. Besides prizes at other shows, these two dogs took first and second prizes at Philadelphia, against a very strong field.

—Mr. J. R. Schuyler's (Bloomsburg, Pa.) Irish red setter bitch Zoe (Plunket-Moya) whelped on the 5th nine, all dark red puppies (4 dogs and 5 bitches), sired by Dr. Jarvis' Champion Elcho.

CARRIE.—W. T. Irwin's Carrie has whelped seven—two dogs and five bitches (one bitch has since died.) They are all black and tan. Sire, Sherwood's Champion Rupert.

RUSA AND HER PROGENY.—Rusa, belonging to Mr. William Vic, of St. Louis, has a litter of ten, five dogs and bitches. Rusa's progeny is sired by the champion dog France.

WESTMINSTER KENNEL CLUB.—The office of the Westminster Kennel Club will, after this week, be at 22 West 32d st.

—Capt. Foster, of Leesburg, Virginia, has recently sold one of Kirby's puppies (a gyp) for the handsome sum of \$500.

THE CITY DOG LICENSES FOR 1877.—The annual report of the Permit Bureau for 1877 shows that 11,991 licenses to keep dogs were issued in that year. Each license at \$2 gives the city some \$23,982—that is, providing the city gets the whole of the money, which is pretty good for the dogs. As to the civic classification of the dogs who paid license, the worst possible mess has been made of it. What may be a box-dog, a beehill dog, a duff dog, a gallup dog and a Laverack?

DETROIT DOG SHOW.—This proposed exhibition is indefinitely postponed.

GYPSIE.—J. McWhorter (Canton, Mo.) has sold to W. T. Irwin, Topeka, Kansas, his black and tan Gordon bitch Gypsie. She was bred by Dr. Vandermast, of Lancaster, Pa., out of Jennie by Tom. They are from Mr. Tilley's stock and are believed to be as good Gordon stock as can be found in America. Dr. Vandermast has a standing offer to hunt Jennie on quail against any dog in America. Gypsie is of medium size, has speed and good style. She will be two years old in February. Has had one litter of pups by Champion Rupert, which are very promising. She will be bred to Rupert again. Her brother Duke won second at last St. Louis show.

CANINE PLUCK.—In the contest between the "natives" and the "blue bloods" at the Nashville field trials, the most conspicuous of the former was "Joe, Jr.," by Jarvis "Elcho," out of Campbell's "Buck, Jr.," who won first in the champion stake, and second in the Dupont Powder Company stake. This magnificent dog was just recovering from the distemper, from the effects of which his right eye was closed, and around the eye was a raw space, as large as the palm of the hand. It is easy to conceive the exquisite tortures to which this poor dog was exposed in making his way through the dense cover in which he was hunted, but it is not so easy to conceive the wonderful pluck which enabled him to come out twice a victor under such suffering.  
 F. G. S.

THE ASHCROFT KENNEL CLUB.—This club, of Bridgeport, Conn., have elected the following officers for the year ensuing: B. B. Case, President; S. B. Hayes, W. A. Sharp, Vice-Presidents; S. S. Pease, Secretary; Theo. Courtright, Treasurer; B. H. Case, S. B. Hayes, S. S. Pease, Executive Committee. The object of this club is to study and improve the breed of dogs known as setters and pointers for sporting purposes, to breed, board, own, hire, sell, train and exhibit the same. The management of the club is under the control of the Executive Committee, they having power to fill all vacancies, to appoint an exhibition committee which is to have charge of all bench shows, the appointing of judges, etc. A resolution was passed requesting the Executive Committee to ascertain the practicability of holding a bench show the week succeeding the bench show of the Westminster Kennel Club, New York City.

TO CURE A DOG FROM TEARING CLOTHES.—Editor Forest and Stream and Rod and Gun.—Noticing in your issue of Dec. 6 that some one wants to know how to break a dog from tearing clothes when on a clothes' line, I will tell you the experience of a friend. This friend's dog would get at the clothes, and, as he had a great deal of affection for his dog, he concluded to get rid of actually whipping the dog. Watching the dog as he jumped at the line, he struck the dog with a good broom-brush, and hit him on the rump. The dog let the clothes alone. The next time the wash was hung out the dog acted as if he wanted to be at his old tricks. Finally he tried it again, when the brush of the broom was again used. The dog cleared out after that, and until now I am told that the dog does not fancy the looks of a broom. This friend has decided ideas against whipping a dog until he has tried other means.  
 A CONSTANT READER.

Game Bag and Gun.

GAME IN SEASON IN JANUARY.

Hares, brown and gray. Wild duck, geese, brant, etc.  
 FOR FLORIDA.  
 Deer, Wild Turkey, Woodcock, Quail, Snipe, Ducks and Wild Fowl.

Bay birds" generally, including various species of plover, sand piper, snipe, curlew, oyster-catcher, surf-bird, phalaropes, avocets etc., coming under the group *Linnæola*, or Shore Birds.

CAPTAIN A. H. BOGARDUS' WONDERFUL FEAT.

5,000 GLASS BALLS BROKEN IN 480 MINUTES 35 SECONDS.

A most remarkable exhibition of human skill, pluck and endurance, was successfully accomplished on Thursday last at Gilmore's Garden. The programme was as follows:  
 "Gilmore's Garden, N. Y., Thursday, January 3, 1878—Match \$2,500 a side; Captain A. H. Bogardus to break 5,000 glass balls in 500 consecutive minutes; the balls to be sprung from two or more traps at about 18 yards rise; to be broken in the air to count, and only one ball to be sprung at a time; Bogardus to use one gun with two sets of barrels, and to load his own gun, unless the weapon shall break or give out."

In the solution of a complex problem of this character, some of the factors are worthy of particular mention. Putting aside for the moment the well known skill of Captain Bogardus under ordinary circumstances, the ordeal this wonderful shot had to go through was immense. Suppose we analyze the exact number of movements called into play, in order that a double-barreled, breech-loading fowling-piece shall be loaded and discharged. Firstly, the barrels had to be unlocked. Two movements are necessary to insert the cartridges, one movement to close the barrel. Two movements in cocking; one to bring the gun to the shoulder. Two movements to draw the triggers, and two movements to draw out the exploded cartridges. Here are eleven positive movements. Of course there are several other major and minor physical exertions which might be cited. As a margin has to be allowed for misses of the balls and miss-fires, we may multiply 5,300 by 11, in order to get at all the movements necessary, which gives, with the changing of barrels, a result of fully 60,000 motions. Let any one repeat incessantly 60,000 movements, and some idea may be arrived at of the physical strength necessary in order to accomplish the feat. Now, when one remembers the recoil of a gun, and the impression left on the shoulder, 5,300 rounds fired by one pair of hands, each with an impact of 42 lbs. received by the body, makes, in the aggregate, an enormous strain. The movement, to overcome the recoil on the part of Captain Bogardus, is quite automatic, but to the careful observer the consciousness that he braced himself at every discharge was curiously evident, when his gun miss-fired. Then the shooter would fall forward for a second, and instantly recover himself. But though skill was of course the predominant thought on the part of the spectators, when directed towards Captain Bogardus, gunsmiths, cartridge manufacturers, and makers of special powders had great interest in the trial this match was sure to provoke. Five thousand three hundred consecutive discharges from two pairs of barrels was a heavy test. If the gun gave out the match might be lost, for a new gun might have not quite suited the shooter. The cartridges, too, might have been imperfect as to primer, or the wood powder used non-explosive, or without sufficient power. Finally, the traps employed during eight hours might not have been efficient. Suffice to say that all worked quite well. The misses on the part of the Captain were insignificant, and though the miss-fires were numerous, neither of them had any effect on the issue of the contest. As to the miss-fires, it may be positively asserted, both on the part of Captain Bogardus and from our own inspection, that the fault did not lie with the cartridges of the U. M. C. Co. The gun used by Captain Bogardus, an admirable one, having been used some fifty thousand times, the plungers had been slightly worn, and did not strike deep enough into the cartridge, as the miss-fire shells showed but slight indentations, and when the cartridges were used a second time they always exploded. Of course, though Captain Bogardus has as much practical experience in guns as any one in the world, he was for once at fault. A word in regard to the powder used. The explosive compound was the Ditzmar powder. It would have been impossible to use black powder, in the close space of Gilmore's Garden, on account of the dense smoke it would have caused, and, as much as anything else, because of the heating of the barrels. As a strong and effective explosive, the crucial experiment made with it on the occasion sufficiently demonstrates the excellence of the Ditzmar powder. We are positive that the headachy influence which the Ditzmar powder is said to induce has no just foundation. Having been for some hours in close proximity to the shooter, we felt no inconvenience.

Now, as to the description of the Captain and his method of shooting. Capt. Bogardus is a magnificent specimen of a human being. He is some five feet eleven inches in height, and weighs 235 pounds. His frame is large and massive, and he has enormous brawn and muscle. Without any apparent rapidity of movement, never hurried, not the least mechanical in movement, his shooting has something slightly automatic about it. Watch him change a barrel which his coach has put on the table for him. In two—three—seconds the old barrel is taken out, and in three seconds more the new, clean bar-

rel is tight locked on the stock. A low "Pull," uttered by the Captain, warns the man with the string that he is ready. Up go the balls within three seconds of one another, two rapid explosions are heard, and the balls struck in the air fall into shivers. In an incalculably short time Bogardus has jerked out the two shells, there is a curl of smoke from the breech, two new shells are introduced, in a second the gun chamber is closed, the hammers are at full cock, "Pull" is heard, there are two more explosions, two more cascades of glass, and so on it goes, over and over again, for almost eight hours.

The whole arrangement of the exhibition, quite a novel one, was excellent. There was no confusion nor delay. A board partition 40 feet by 18, was erected about midway in the arena, over which wooden barricade a muslin screen was stretched, so as to allow the glass ball to be distinctly seen. In front, say about twenty-five feet, were the two traps for springing the balls, some fourteen feet apart; beside each trap men were seated who supplied the balls and set the trap, and some eighteen yards further back was Capt. Bogardus. Here were several tables on which were placed a countless number of boxes containing the cartridges. Assistants were ready at the table to clean the barrels, plunging them into a barrel of water; and to sort out the cartridges ready for his use. Capt. Bogardus, though the atmosphere was freezing cold, divested of his coat, in shirt-sleeves, with a sloop hat over his eyes, thus equipped did the shooting. Some timorous people were anxious at times in regard to the men charging the traps; but such is the Captain's skill, they were not touched by a stray shot. Occasionally, though every precaution was used, a string would break, but in an instant a knot was tied, and no time was lost. Strange to say, the last barrel shot in the doubles always seemed to give the loudest report.

It is not generally known that it is the Captain's habit to fire the left barrel first. The reason for this is, that as the right barrel mostly shoots the closer, the first glass ball being comparatively (only comparatively) easier to hit, the more accurate barrel is reserved for the last ball, which is slightly more troublesome to find or cover. In the setting of the traps the first glass ball was thrown lower than the second. This was apparent on the screen, when the shot made a hole on the muslin several feet lower on the right hand than on the left hand. During the match there were some six long-fires. Here the great experience of the Captain was never at fault. A ball would be searched in a fraction of a second's time through an arc of many feet, and the ball broken though within but an inch of the ground when at last the gun went off. For a critical detail of the match we refer to the absolute score kept. An examination of the tables will show the time of each one hundred balls. Calculating the time lost from the shells not exploding, this was about fifteen minutes and thirty seconds. The sixth hundred was a perfect score, there being no miss, and was accomplished in the unprecedented time of five minutes and thirty-five seconds, a record which has never been equalled. Having commenced at 2:40 P. M., Bogardus shot on until a few minutes before five o'clock, when at the twenty-seventh ball on the third thousand the captain rested some twenty minutes, when the gun was resumed. This interval of repose, though absolutely necessary, apparently had the effect of chilling the Captain, for now some signs of slight distress were manifest, of a local character. The captain's right hand was stiffening from the constant opening and shutting of the breech, and some applications of arnica were necessary. During the thirty-second hundred a slight rest was again taken. Now the over-strain was commencing to tell on the right hand and arm of the shooter. It had taken some three hours and twenty-three minutes to break 3,000 balls. In the fourth thousand, as may be seen, the time to break each hundred balls increased. More attention now became necessary on the part of those who were caring for the captain, and hot water was used to restore power to the overtaxed arm. Stiffer and stiffer grew the fingers. But a margin of time was still to the credit of the captain, and no fears of a breakdown ever for an instant disturbed the mind of the Captain's numerous friends. Though rests were more frequent, still the Captain struggled on, bound to win. Occasionally suffering from intense physical pain, heightened by every new effort, Captain Bogardus sat down. During the forty-eighth hundred the champion sat on a chair, still breaking the balls quite as unerringly as before. A seated position really makes very little difference to Captain Bogardus, as years of experience in duck shooting, when confined to the seat of a boat, have made him as effective a shot in this way as standing. Battling along, game to the very last, finally the concluding hundred was reached. That the champion would win was now established beyond a doubt. At 10 o'clock, and just between the 40th and 41st minute past the hour, the last shots rang through Gilmore's garden, and with a loud outburst of applause, the feat was accomplished. To show the pluck and skill of the man, as a bouquet, both traps were sprung at once on the last round, and as with almost one report the two amber balls were collapsed. During the whole performance, we are pleased to state, there never was once a word of dispute heard. Everything was done in the most honest and straightforward way. Dr. Talbot acted as puller, which difficult task he accomplished in the most skillful way. Mr. McCook had charge of the gun, and had the clean barrel always on time, and in the best of order. At the request of Capt. Bogardus, T. C. Banks, Esq., manager of the FOREST AND STREAM AND ROD AND GUN, acted as official scorer, assisted by Messrs. J. E. Whitely and E. Plummer. Mr. Miles Johnson, whose quick

eyes were always intent on the balls, served as referee. The gun used was built by W. & C. Scott & Sons, of England, with interchangeable barrels of 10 and 12-gauge, choke-bore, weighing ten pounds, furnished by Messrs. William Read & Sons, of Boston. For the 10-gauge, 4 drachms of Dittmar powder was used, with 1 1/2 oz. of Otis Le Roy's chilled shot; for the 12-gauge, 3 1/2 drachms of Dittmar powder, and 1 1/2 ozs. of Otis Le Roy's chilled shot. As we conclude this article, three days after the event, we can report quite favorably on Capt. Bogardus' condition. At about the 500th shot the Captain informs us that the second finger of his right hand was considerably abraded by constantly working on the barrels, and this gave him a great deal of pain during the whole match. At about the second thousand, the pain in the thumb, first and second finger commenced rapidly increasing, until a cramp extended all up the muscles of his right arm. By the time the match was concluded the whole right arm had swollen enormously. For two days after the match the arm was very painful and almost useless. On the shoulder, where the butt of the gun rested, the bruising was considerable, but not as great as might have been expected. From the shoulder the inconvenience was slight. This speaks well for the Dittmar powder, as the slight recoil is cited by the inventor as one of its greatest merits. To-day, the Captain, under proper treatment, though a little stiff, is almost as well as ever. For some forty-eight hours the effects of the constant concussion gave the champion a bad headache. This, however, has completely passed away. Whether Capt. Bogardus would again like to shoot 5,000 balls against time is quite doubtful. Captain Bogardus assures us that, after this successful achievement of his, he is inclined to think, "that once in a man's life to do such a thing is amply sufficient."

The following official record of the score and the time we have taken direct from the original papers, and it is scrupulously exact and accurate. The scores are given in groups of 100 breaks each, with the time, and where recesses were taken of more than half a minute the fact is noted by an insertion of time at the point where the rest was taken.

In the time record the schedule time column gives the time at which each hundred breaks would have been completed had the rate gone on at ten per minute, or the 5,000 in the 500 minutes. The column of actual time gives the time of finishing each hundred breaks. Of course the difference between the two gives the third column, or that of the lead over his time gained by the Captain as the match progressed. It will be seen that before the long intermission for refreshments a gain of one hour and three minutes had been gained, and from that point the rate was about that of the schedule. The accurate time of breaking each hundred is given in the next column of figures. The shortest record was five minutes twenty-five seconds, and the longest eleven minutes thirty seconds. The aggregation of these several times per hundred gives the total shooting time to any period of the match, as shown in the column of total shooting time, while the last column displays the number of misses declared by the referee. The record of the third thousand, in the way of misses, is almost marvellous, but twenty-one in the whole 1,021 t. rown up missed the shattering by the shot. The time, too, was most brilliant, and the announcement of the fact that the third thousand was disposed of in less time than the second, served largely to bring the whole audience to the unanimous opinion that the Captain would win the match:

THE ONLY OFFICIAL SCORE.

Table with columns for score (100, 200, 300, 400, 500, 600, 700, 800, 900, 1,000, 1,100, 1,200, 1,300, 1,400), time, and other details.

Main table of scores and times, including columns for 1,500, 1,600, 1,700, 1,800, 1,900, 2,000, 2,100, 2,200, 2,300, 2,400, 2,500, 2,600, 2,700, 2,800, 2,900, 3,000, 3,100, 3,200, 3,300, 3,400, 3,500, 3,600, 3,700, 3,800, 3,900, 4,000, 4,100, 4,200, 4,300, 4,400, 4,500, 4,600, 4,700, 4,800, 4,900, 5,000.



a thread of it in the bunch as commonly sold. At each end you will see where it has been twisted around the pin, and beyond that, where the piece held in the fingers has been stripped out, which is usually flat. That there are other insects than the common silk-worm (how many I do not know) who have this lobe of fluid matter that is utilized into fishing gut I am satisfied. More than forty years ago I got a quantity of gut (how or from whom I do not remember), but it was different from any I had ever seen before or since. It was heavy and long. Some of the threads were nearly three feet, perfect in smoothness and equal in thickness, and as thick as good salmon gut. The color, however, differed from the ordinary gut, being brown-colored, as if soaked in tea, but I am satisfied it was the natural color. I still have a few threads of it in my tackle book, which have been there about forty-five years. I have just looked at them and find that the longest yet remaining is twenty-three and a half inches; a good, clear thread; one of the lightest of the lot.

"About as long as I can remember there was an article sold called sea-weed, which was used by fly-fishers. It was from three to four feet in length, round, smooth, and tapered from the root to the point, but was not reliable as to its strength. I have not seen any of it for nearly fifty years past. I would like to know if you or any of your angling readers have seen any such gut as I have described as to length and color, and if it is to be had in our market."

FRESH WATER CODLINGS.

EDITOR FOREST AND STREAM:

Some information about the fish of which the enclosed is a rough outline, taken the day after it was caught, would be quite interesting to many of your readers. It is a fish that no one here has ever caught or seen before. It was brought to me to learn if I knew what it was. I could not remember of having seen any like it here during thirty-four years residence. In looking into a work on fishes published in New York, I found, I think, the identical fish, called the common freshwater burbot or eel pont. Describing the fish to my son, who resides in Minnesota, he writes me that he has caught them either in the Mississippi or Rock River, and that three were caught some time ago in Root River, in Minnesota. Are these fish common in the rivers or lakes in the East? Are they used for table? I am well acquainted with these sea species. They were known by the name of Ling, were dried like codfish, also sold fresh.

Davenport, Iowa, Dec. 26, 1877. WM. GRAY.

[We recently saw some fine specimens of this variety of fish on the stand of Eugene Blackford, Fulton Market. They were taken in Cayuga Lake, in the State of New York, where they are abundant. Some of those which we saw measured two feet in length. They are repulsive in appearance, and are not in request as food. Their color is a greenish olive, something like that of the frog. It is the fresh-water counterpart of the salt-water codling, *phycis tenuis* of the family Gadidae.]

TROUT FISHING AT TIM POND, ME.

MT. VERNON, Maine, Dec. 17, 1877.

EDITOR FOREST AND STREAM:

In September last our party of four started for Tim Pond from here. Our route from here lay through the towns of Vienna, Farmington, New Vineyard, New Portland and Kingfield, noted for being the home of Governor King, the first Governor of Maine.

From Kingfield we follow the west bank of the river up to Jerusalem Bridge, where we cross the Carrabasset and go up the Height of Land and down on the other side into Dead River Valley; cross the south branch of the Dead River and go up on what is called the "Ridge" to Kennedy Smith's, where we arrive at noon on the second day. The distance is sixty-one miles. From here we have a fine view of Mt. Bigelow and Abram, also of Dead River Valley.

"Uncle" Billy Stevens, now about eighty years of age, lives here near Mr. Smith's and is the first settler of the valley, moving here about thirty years ago, and made the first clearing. Flagstaff is ten miles below here on the Dead River. After dinner, our packs made up, we start for the pond, about six miles to the west of Smith's, and arrived there about 6 P. M.

We were up in the morning as soon as we could see, and down to the dam at the outlet of the pond, and in a short time we had about twenty fine trout that would average about one pound each. After breakfast we went to the other side of the outlet, and the rest of the day was spent in building a camp big enough to accommodate our party. The next morning we caught about twenty-five fine trout. They were handsome fellows, weighing from eight ounces to two pounds; it is rare that we get one above that weight. The under side of some of them is about the color of blood and others of a silver color. They both take a worm or riso for the fly in September. There is no fish in the pond except trout, and you know what you have every time. The pond covers about one and one-third square miles, and lies just at the northwest side of Kennebecago Mountain and about five miles north of Kennebecago Lake. There is good partridge shooting there, and the deer and moose are quite plenty. Two years ago when I was there we had quite an exciting chase after two caribou that were swimming across the pond, but they having too much the start for us got away. I think that there is no better trout fishing in the State of Maine than Tim Pond. This is my fourth trip there, and I have always found a plenty of fish. This time we were there eight days and caught about two hundred trout. The expense is very small, being less than \$10 each for the trip, and we were away from home twelve days.

Any one wishing to go there can go to Farmington by rail and take a team from there forty-six miles; or go to North Anson by rail and stage from there to Eustis, when it is five miles to Mr. Smith's who owns the only boat on the pond and who will go with you, or furnish a reliable guide at very reasonable rates. One going there must make up his mind to rough it from the time that he leaves Mr. Smith's until he gets back.

Any one wishing for further information can get it from Kennedy Smith Eastis, Me., or of the writer,

M. S. PHILBRICK.

BLACK BASS FISHING.

EDITOR FOREST AND STREAM:

Having followed this kind of fishing for nearly twenty years, I can tell how I do it.

In the first place, it is a common error to characterize all the different species of the bass as "black," or to confuse the black and the green under the same name, when they are of decidedly distinct habits, appearance and marks. The genuine black bass is known by one unmistakable mark, and that is the "red eye." His mouth is much smaller, and he is a trimmer and more symmetrical fish. While you always find the black bass on the sand bars, gravel beds and the margin of shoals, the green fish is unmistakably a grass fish, found always among the weeds and rushes and, except perhaps when in search of food, never near the sand and gravel beds. The green bass is a voracious monster,

never making "two bites of a cherry," and he goes for his bait with a rush, and swallows it without an effort. But the red eye is a dainty feeder and delicate biter, often taking hold of the tail of the minnow only, and holding it in his mouth for several minutes (that is in still fishing). In the country where the writer spends his summers and does his fishing, Southern Wisconsin, the black variety is plentiful and quite common, but not nearly so abundant as the green.

Now, as to the method: An eight-ounce rod, rather stiff, and nine feet in length; a Conroy double multiplying reel, a firm line twisted line, a No. 5 Sproat head hook on gimp, and small yellow perch for bait (not very particular as to the size, for I often use a four-ounce fish). I reel the bait to the tip of the rod, and cast, with the right hand, all about the boat; and, with a little practice, the bait can be landed within one or two feet of any desired spot. If there is a bass within ten feet of the bait when it strikes the water, he will be on hand as soon as the bait is, and he never misses his reach. If you have no strike, you reel in for another cast, and, very frequently, a fish takes the bait on its way in. By this method you can cover a great deal more ground than by trolling or still fishing. You can reach the homes of the fish among the reeds and rushes, and it is a great deal more exciting and sportsman-like. While the green bass is not quite so gamy a fish when hooked as the black, he is still, eminently, a fighting fish; and a four or five pounder at the end of seventy-five or a hundred feet of line, will give you all the sport needed for a quarter of an hour or more.

Now, one or two hints: You cannot cast against the wind, as your line will certainly overrun, so you must make your casts with the wind or across it. The reel should be no more than a double multiplier, as with a heavy bait, the cast gives it such an impetus as to carry the line off the reel faster than it can get through the rings, and hence, with Kentucky or Meeks reels, which multiply four times, the line is seen to tangle.

I have gone through all the old methods of fishing, trolling with a spoon and live minnow, still fishing, and everything else, and I can assure you that the cast from the bow of a boat excels them all; indeed, we do not now consider him a sportsman who trolls with a spoon, but only a pot hunter.

If any of your readers desire to enjoy bass fishing in its perfection, let them come to Oconomowoc in June. Within a radius of fifteen miles there are more than forty lakes, and without any odious comparisons, it is certainly the loveliest spot on the American Continent.

[For specific characteristics and modes of catching the several varieties of bass in North, South and West, see "Hallock's Sportsman's Gazetteer."—Ed.]

Chicago, December, 1877. GEO. A. SCHUPFELDT.

Answers to Correspondents.

No Notice Taken of Anonymous Communications.

A number of anonymous correspondents will understand why their queries are not answered, when they read the lines at the head of this column.

C. G. R., Port Royal.—See agricultural columns for answer to your query.

CORAM.—For elk skins apply to Eddy, Harvey & Cutter, 239 Madison St., Chicago.

ELK.—Where can I obtain elk skins? Ans. Write to Pember & Prouty, 128 West Broadway, New York.

W. G. S., Chatham, N. Y.—For woodcock and ruffed grouse shooting, what kind of a dog do I want? Ans. A setter.

C. J. P., Painesville, O.—See last week's issue in regard to the Woodruff Scientific Expedition. Address given therein.

FINDLEY'S LAKE.—A correspondent wishes information about this lake, which is near North East, on the Lake Shore R. R.

READER, Sharon, Pa.—Will some of your readers please inform me through your paper where the wild pigeons are?

H. E. W., Newark, N. J.—Where can I get pocket lanterns? Ans. White Manufacturing Co., Bridgeport, Conn.

SUBSCRIBER, Baltimore.—What is the best lubricator for the extractor and working parts of my gun? Ans. Eaton's Rust Preventive, or refined porpoise oil.

D. W. B., Brazil.—Where can I get King Charles spaniels? Ans. About the most difficult dog to get. Advertise in FOREST AND STREAM.

L. G. M., Brier Hill, N. Y.—Fur, Fin and Feather contains New York game laws. We can send it to you, price 50 cents. We have not published the Black Lake regulations.

A. W. B., Fort Lincoln, D. T.—It is difficult to get the rifle you want second-hand. We will put the matter before some of our dealers, and if they can find the gun you want, will address you.

A. S. C., Chicago.—Which is the better rifle, — or —? 2. What is the extreme accurate range of each? Ans. 1. We must respectfully decline acting as judges. 2. About 200 yards.

AG. F., Belleville, Ill.—It was an unfortunate error of types. Should have been 50 to 75 dollars. To alter barrels from \$40 to \$50; extra engraving and neat finishing make up the remaining cost.

J. B. D., Brooklyn.—Please inform me where I can get a muzzle-loader altered to a breech-loader? Ans. Send it to A. G. Genez, 9 Chambers st., N. Y., or to George Hayden, 143 Fulton st.

A. M., Lake Charles, La.—Give me the name of a reliable horse where I can have a shot gun and rifle rebored? Ans. Send to Fulson Bros., St. Louis. If you desire to send it to N. Y. let A. G. Genez, No. 9 Chamber st., do it.

W. L. B., Sangauteck.—I want to shoot four drachms and 1½ to 1¼ ounce shot, what weight and gauge gun shall I use to make best pattern? Ans. Ten gauge, to weigh 8 pounds and upward.

C. R., Albany.—From the description you give of the dog would not think there was any Gordon in her. Her diminutive size inclines us to think there may be a mixture of spaniel. It is difficult to judge without seeing the animal.

S. S. H., New York.—Will you please inform me through the columns of your valuable paper where cattle raisers in Colorado and Nebraska winter their stock? Ans. They winter themselves on the range. They require no shelter or provided food.

D. L. V. E., Washington, N. H.—1. Of No. 1, 2 and 3 which gun for the price would you prefer? 2. Give me the name of a good horse dealing in spruce gun. Ans. 1. For the price would prefer No. 1. 2. No demand or sale for it. Boys chew, now, paraffin.

J. H., Mount Royal.—What is used to prevent kerosene oil leaching through wood? Ans. Two coatings of glue are used. The method is to steam the barrel, and while warm, a pound of glue in solution is put on, and the barrel bunged; the barrel is then turned around, emptied, dried, and the process repeated.

SUBSCRIBER, N. Y.—1. Have Adam's guns a good reputation? 2. What brands of cheap powder are suitable for a breech-loader? 3. What is the price? 4. Would you advise a mixture of Dittmar's powder with ordinary black powder? Ans. 1. Good reputation. 2. Hazard's F. G. 3. Twenty-five cents a pound. 4. Would not work.

G. P., West Lobanon.—Where can I get live quail? Ans. Write to Reiche Bros., N. Y. (We may state, in reply to numerous inquiries as to birds, that it is very difficult to procure them. Orders with dealers must be placed fully six months before they can be filled. The migratory quail cannot be obtained, they are not for sale.)

PITTSBURG.—Is there quail shooting at St. Augustine, Fla.? If not how far away? Is there any shooting at that point, to be had and return the same day? Is it worth the trouble and expense to take dogs? Ans. Good quail shooting just across St. Sebastian River, a couple of miles. Yes; take your dog, or you will get no birds.

A. W. B., Fort Lincoln, D. T.—We can tell you of a rifle pretty much as you require—cal. .40, 30-inch steel barrels, set triggers, plain sights and bar locks. Price \$25, with peep and globe sights \$30. Cost originally half \$60 and is now in good order. Address Mr. Henry C. Squires, No. 1 Cortlandt St., New York city.

C. J. G., Tom's River.—1. Would a Chesapeake Bay dog make a good watch dog on a farm, and also be a No. 1 duck and water dog? 2. Where could I procure such a pup, and at about what price for the best breed? Ans. 1. Makes a good watch dog, and can find ducks too. 2. Hard to procure. Apply to C. H. Tilghman, Easton, Md.

EPREGOS.—1. Where can Bogardus' rules for glass ball shooting be procured? 2. Where can I get a form of constitution and by-laws for the organization and governing of a game protective and shooting club? 3. Are the "Eagle Claw" traps reliable for catching and holding rats and larger animals? Ans. 1. Write Capt. Bogardus to our care. 2. We take pleasure in mailing you one. 3. Excellent for the purpose.

J. S. F., Philadelphia.—1. How much will it cost to change a muzzle-loader to a breech-loader? 2. Is there a London gunmaker by the name of —? 3. Can I buy the "Sportsman's Gazetteer" in Philadelphia, will you send it by mail? 4. What will a well broken water spaniel cost? Ans. 1. Could not fix a price. 2. Leading gunsmiths. 3. Circular has been sent you. 4. About \$40.

YELLOW LEG, Auburn.—1. What is the cost of a passage to Para? 2. What will it cost to live there? 3. What is the duty on bird skins? 4. Give me the name of a book with list of birds of Central America? Ans. 1. \$75. 2. Haven't the least idea, never been there. 3. Twenty per cent, ad valorem. 4. There is no general list published. Special lists have been published by the Smithsonian, and in the annals of the Lyceum.

T. D., New York.—When deer are shot in the water, if in the red coat, they sink immediately; if in the blue coat, they float like cork. Now, can you explain the reasons for each peculiarity? I have always supposed that the hairs of the blue coat—nature's protection in cold weather—were filled with air, but my authority being called for I can find no printed authority. Ans. The deer is fatter when he is in the blue, and therefore floats. Your theory about the hair is correct to an appreciable extent.

C. E. C., Oil City, Pa.—On page 547, "Sportsman's Gazetteer," the author says: "We would not advise their use in the Winchester rifle"—speaking of explosive ball cartridges for large game. Can you explain why he would not use them? I have always thought that the use of explosive cartridges would make the Winchester the best gun for all game, from deer to a grizzly bear, but have never practically tried it. Ans. Explosive cartridges are not safe in the magazine of the gun.

A. S. B., Boston.—What is the "Ferguson Jar" for catching fish eggs? What, if any, are the special publications on "Fish Culture," on trout particularly, since the book by L. Stone, Esq.? Ans. Write to T. B. Ferguson, the patentee, 192 North Charles St., Baltimore. No special publications printed except what is contained in Hallock's "Sportsman's Gazetteer" (159 pages) which relate to species, specific characteristics and habits, rather than to culture and propagation.

T. C. L., Rockingham.—My pointer mashes birds badly in retrieving. Can I remedy this, and how? Ans. First by patience. Two or three methods are employed which we indicate, but we do not recommend save in a modified way. One is to drive tacks in a corn cob, put it in a glove and throw it to the dog. If he is not careful when he retrieves the glove he is hurt. This is a bad plan, because once wounded in the mouth the dog suspects everything thrown to him to retrieve. The second method is to use a collar with points inside. This too is decidedly cruel. A thin cord with a slip knot can be used to correct a fault of this kind. Tighten it when the dog is at fault, but without choking him. We have seen dogs quite faulty in the respect you mention, with simple warnings and no violence, made so delicate in mouthing a bird, or any object, that they would fetch a lady's fan without hurting it. Use patience. See Hallock's Gazetteer.

O. G. P., Lincoln.—To whom shall I apply for books on tobacco culture, etc.? 2. How is the climate of Yaquina Co., N. C., adapted to the raising of the Angora goat? 3. Where can I find data in regard to raising Angora goats? 4. Would the Yaquina River be adapted to the training of black bass and shad? 5. How can I get tuffed and pinnated grouse to stock with? Ans. 1. We have none of the books on hand. Write to E. R. Billings, Somers, Conn., who publishes a good book. 2. Should think it very well adapted to raising the Angora goat. 3. Consult Vols. II, and III, of F. & S., and Agricultural Reports for 1874-75. Harrison Gray Olds, Washington, D. C., is the best posted man on Angora goats. 4. The Yaquina would be better adapted to black bass than shad. Full information can be found in back files of the FOREST AND STREAM, or from the Pennsylvania Fish Commissioner, H. J. Reeder, Easton, Pa. 5. Write to Reiche Bros., Chatham St., N. Y., for birds.

W. V. H., Cromwell.—1. Where can I obtain information in regard to "Evans' repeating rifle"? 2. What, if any, long-range muzzle-loaders are manufactured in the U. S.? Who are the parties to address? 3. What Spanish or French author wrote the lay, or lament, of Roncevaux, etc.? 4. Has there been an English translation? Ans. 1. Evans Hinds Mfg. Co., Mechanic Falls, Maine. 2. Remington & Sons, New York. Sharps, New York—see advertisements. 3, 4. The author of Roncevaux is unknown. In the Oxford Library there is a manuscript of the Ninth Century which contains what little is known of it. The Chanson de Roland was part of the Roncevaux. There is no English translation, French literature has, however, discussed the poem most fully. Refer to Leigh Hunt's "Stories of Italian Poets" for further information.

LARS.—1. Why does a ball from an overheated rifle barrel always rise, or shoot over? 2. Is the \$5 rifle advertised a carbine of 55 calibre, etc., etc.? Ans. 1. It must be first positively proved that a heated rifle barrel does throw its balls higher. We are by no means willing to accept that it does. Should, however, this fact be granted, there are some pretty theories, or rather suggestions, in regard to this over-shooting, which merely advance without endorsing it. It is asserted that after repeated firing, when the barrel warms, the expansion of the metal cylinder alters from the horizontal, being uplifted from the muzzle while retained mechanically at the breech. This, then, it is said, makes the arm throw high. The barrel is bent downward, the muzzle being higher. 2. Not the same you describe.



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INFLUENCE IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 109) FULTON STREET, NEW YORK.

[POST OFFICE BOX 2832.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, JANUARY 10, 1878.

### To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts. Secretaries of Clubs and Associations are urged to favor us with brief notices of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

**BLOOMING GROVE PARK ASSOCIATION BALL.**—This event took place on Thursday night at the Hoffman House, and for brilliancy, quality, and numbers of guests present was a marked success. Composed chiefly of members and their intimate friends, it partook strictly of the character of a private social reunion, and for this reason was most enjoyable. Between 200 and 300 persons were present, and the number of ladies and gentlemen distinguished in literary and official positions was very considerable. Some of the toilets were very tasteful and elaborate. Mr. C. H. Reed, the proprietor of the Hoffman House, who is a member of the association, placed the dancing hall and several reception rooms at the disposal of the party, and furnished a most bounteous and elaborate collation, which was really perfect of its kind, doing credit to the ingenuity and good taste of the caterer. The association has reason to acknowledge its obligations to Mr. Reed. The arrangements throughout for the comfort of all concerned were most perfect.

The occasion included a reception to its first President, Fayette S. Giles, Esq., who has recently returned from a three years' absence in Switzerland. Simon Sterne, Esq., delivered an eloquent and fraternal address of welcome immediately after the supper, in which he set forth what Mr. Giles had done for the preservation of game in setting apart a natural park of 12,000 acres for its propagation and protection; in providing a delightful resort for ladies, gentlemen, and children, and in cultivating a taste for aesthetics. The event has done much to bring the association and its objects into more popular notice.

**OUR AGENT WEST OF THE ROCKY MOUNTAINS.**—Mr. B. B. Porter is our duly authorized agent west of the Rocky Mountains for the FOREST AND STREAM AND ROD AND GUN, and also for the sale of "Hallock's Sportsman's Gazetteer." Mr. Porter's address is at San Francisco. Mr. Porter is well known to many of our readers as a fish-culturist of large experience, having contributed numerous articles to this paper.

**BOGARDUS' SCORE.**—We have published an extra edition this week, and can supply copies to all persons wishing to preserve the full record of Bogardus' wonderful feat.

A CARD TO CONTRIBUTORS.—We have on hand an accumulation of miscellaneous sketches which give us much anxiety. Most of them are of considerable interest and literary merit, and many are from writers of prominence. Of course the authors expect their prompt publication. We are therefore persuaded to print a list of the same for the guidance of those concerned. As their average length usually precludes the possibility of our printing more than two in any given issue of our paper, it can be easily calculated how long it will take us to run through the list, supposing that it receives no increase. We will do the fair thing in our selection, and if any contributor has not patience to wait for the publication of his article, let him kindly notify us and we will return it free of cost:

Perkins' Pilgrimage; From the West Eastward; The Coyote and a Chase or Two; A Christmas in Peril; Voyaging on the Upper Missouri (a series), by Ernest Ingersoll; Notes of Shooting in Virginia; Sport in Minnesota; Breches Lake; Itinerary of the Alleghenies; Bear Hunt on the Sunflower River; An Alligator Story; Spirit Lake; Squirrel Stew; Swan Shooting on the Potomac, by Page McCarty; Richardson Lakes in Winter (three papers), by Chas. A. J. Farrar; Catching Deer in the Snow; Bears in the Great Dismal Swamp, by Ned Buntline; On Bay Chalcur; Hunting Reminiscences, by F. G. Skinner; Moose Hunting in Nova Scotia (two articles); Roughing It in the Wilds of Maine (64 pages); The Tent in the North Woods, by E. H. Litchfield; A Model Camp (58 pages); Marine Monsters of Tradition and Fact, by C. F. Holder; Brown's Tract, or New York's Hunting Park; Something About Bears; Treed by a Panther; Sketches in the Choctaw Country.

**SPORTING CLUBS AND SPORTSMEN IN RUSSIA.**—We call attention to an exceedingly interesting letter from our correspondent, which gives an insight into the methods of hunting employed in the neighborhood of St. Petersburg. It seems that within a short distance of the new capital of all the Russias, game is found in abundance. Our correspondent, having participated in many hunting expeditions, relates his experiences. The capercailzie, as our readers have been informed, is a noble bird, a prize much sought after by Russian sportsmen. That ruling epidemic, "striking," seems to have even reached Russia, since our correspondent tells us that the beaters struck. Can these be Nihilists, such as Wallace talks about among the Russian Mujicks? We trust soon to publish further communications from the same correspondent.

**SHEEP RAISING IN TEXAS.**—The attention of a great many persons in the United States has been directed toward sheep-raising in Texas, New Mexico and Colorado, and in the FOREST AND STREAM AND ROD AND GUN we have published quite a number of letters from persons directly engaged in sheep culture. In the great future of this country the sections of the United States above indicated will become the wool producing districts of the world. Of course, an industry of this kind, like any other, requires thrift, economy and judgment; but for a small amount of capital, sheep-raising probably produces more rapid and certain results than almost any other enterprise. There are innumerable people in our midst, either tired of cities or whose businesses have been unfortunate, who might find a healthy life and a lucrative business in sheep-raising. Until future railroads are developed, we would recommend Texas as the best place for sheep-raising.

**THE NEW YORK HORTICULTURAL SOCIETY.**—The annual dinner of this flourishing society was held Tuesday evening, Jan. 8th, at its rooms, 55 West Thirty-third street, and was a most enjoyable event, being attended by a large number of amateurs interested in horticulture, as well as by the trade generally. The tables were elaborately decorated by a number of the New York and Brooklyn florists, while Messrs. Buchanan, Such, and Paterson sent beautiful groups of rare orchids, etc., that gave an exceedingly rich appearance to the tables. After the substantial of the dinner were disposed of the President, Mr. Jas. M. Paterson, in a neat speech, gave out the regular toasts of the evening, as follows: "The Horticultural Society of New York;" "The officers of the Society for the past year;" "The Gardeners of the United States;" "The Florists of New York;" "The Horticultural Press;" and "The Ladies;" which were eloquently responded to by the following gentlemen in order: William Elliott, John Henderson (the late President), Peter Henderson (who claimed that American gardeners were as fully accomplished as those of Europe, instancing Messrs. Smith and Saunders, of Washington, as examples), Walter Reid, James Hogg, and John Laird Wilson. Eloquent, interesting, and telling speeches were also made by Messrs. Parsons, Such, Acton, Northrup, Nelson McDonald, and others, followed by a statistical statement from the President comparing the success of the Horticultural Societies of Boston, Philadelphia, Cincinnati, and New York. "The feast of reason and the flow of soul" was kept up with undiminished vigor until the closing song, "Auld Lang Syne."

**STANLEY'S PORTRAIT IN "HARPER'S."**—Harper's Weekly of the 19th inst. contains a most excellent portrait of Henry M. Stanley, the African explorer. Aside from its timeliness, the picture is a noteworthy instance of the perfection of the engraver's and printer's art.

**THE FIRST SNOW.**—On January 3 the first snow of the winter of 1878 fell in New York City. It was about a half inch thick. One hundred years from now the fact may be of interest.

### HYDROPHOBIA AND RABIES.

In the *Nineteenth Century*, an English monthly review of the highest rank, Sir Thomas Watson contributes a paper with the above caption, which we consider the ablest and the most common-sense review of these topics we have yet seen. We will endeavor to give our readers an abstract of it, although the paper itself is remarkable for its clearness and terseness.

The rapid increase of hydrophobia in England is cited. In the twenty-four years prior to 1844 only two (2) cases of this disease had been admitted into St. George's Hospital, but since the beginning of the present year thirteen (13) deaths from hydrophobia have been recorded in the London registration.

As to the time of incubation of rabies in the dog this period is variable, as that of hydrophobia in the man. A cat which had been bitten by a mad dog inflicted wounds on two persons within a few minutes. The respective outbreaks of hydrophobia were separated by an interval of two weeks. As to dogs, the best known case is that of Lord Fitzwilliam's kennel in 1791, a mad dog hit six of the hounds. The disease developed itself at widely different intervals from the 8th of June, namely in 23, 56, 67, 81, 155 and 183 days. Sir William Giell is authority for a case of hydrophobia which was the result of a bite from a dog received five years before. One apparently well-determined case was of a lad who died of hydrophobia after having been bitten by a dog on the hip after five years. For twenty-five months before his death the lad had been in close confinement in prison, and out of the way of dogs entirely.

Sir Thomas Watson imagines that the virus implanted by the rabid animal may remain lodged in the bitten spot shut up perhaps in a nodule of lymph before general absorption and dispersion takes place. Sir Thomas Watson says:

"The symptoms of hydrophobia, stated in broad outline, are these: Excessive nervous irritability and terror, spasmodic contractions of the muscles of the throat, excited by various external influences, and especially by the sight or sound of liquids, and by attempts to swallow them, and sometimes absolute impossibility of swallowing them, earnest attempts to do so notwithstanding. When fluids are offered to and pressed upon the patient he will take the vessel containing them into his hand, but draws back his head to a distance from it with a repelling and apparently involuntary gesture; meanwhile he makes a succession of hurried gasping sighs and sobs, precisely resembling those which occur when one wades gradually and deeply into cold water. The sound of water poured from one vessel into another, gusts of air passing over his face, the sudden access of light, the waving of a mirror before his eyes, the crawling of an insect over his skin—these are things which, in a hydrophobic patient, suffice to excite great agitation, and the peculiar straining sensation about the fauces. He goes on rapidly from had to worse; in most cases more or less of mania or delirium is mixed up with the irritability. Illusions of the senses of sight and of hearing are not uncommon. The sufferer is very garrulous and excited. In some cases, but not in all, there is incontinence of urine. Foam and sticky mucus gather in his throat and mouth, and he makes great efforts by pulling it with his fingers, and by spitting, blowing, and hawking to get rid of it; and the sounds he thus makes have been exaggerated by ignorance and credulity into the foaming and barking of a dog. In the same spirit the palsy of his lower limbs, which sometimes takes place, rendering him unable to stand upright, has been misconstrued into a desire on his part to go on all fours like a dog. Vomiting is a frequent symptom. The pulse in a short time becomes frequent and feeble, and the general strength declines with great rapidity. Death occasionally ensues within twenty-four hours after the beginning of the specific symptoms. Most commonly of all, it happens on the second or third day; now and then it is postponed to the fifth day; and in still rarer instances it may not occur till the seventh, eighth, or ninth day."

Sometimes all paroxysms cease, and there is no apparent disquiet. A case is cited of a patient in Middlesex Hospital, who was apparently improving, both to the surprise of the doctor and patient, but in half an hour he sank and expired.

Between tetanus and hydrophobia there are these marked differences: In tetanus there is a rigid and abiding form of spasm, which relaxes gradually and slowly, whereas in hydrophobia the spasms are sudden and frequent, such as are known as convulsions. In tetanus there is no thirst, seldom any vomiting, no accumulation of tough and stringy mucus in the mouth and throat. In tetanus the mental faculties seem unimpaired.

Youatt's description of a dog affected with rabies is well known. One peculiar trait worth noticing is the tendency of the animal to swallow bits of thread or silk from the carpet, hair, straw, and even dung. A flow of saliva about the second day is noticeable. Palsy often affects the loins and extremities, and the animal staggers and falls. Mr. Youatt fancies the dog is subject to what we call spectral illusions; his bark is hoarse; respiration is affected; often breathing is laborious, and inspiration is attended with a singular grating, choking noise. But dogs with rabies do not shun water. They have no dread of water, but unquenchable thirst which they cannot satisfy, from a paralysis of the lower jaw, which prevents their shutting their mouths. It does not appear to be true that healthy dogs shun mad ones; they do not manifest any fear; nor is it at all apparent that the mad dog exhales any peculiar and offensive smell. It seems that the disease may be imparted by a dog who has been bitten by a mad dog before rabies is manifested in the first animal. A case is cited of a small terrier who was bitten by a mad dog. The terrier was almost immediately killed, but not before he had licked the cropped ears of a bulldog puppy, which puppy went mad eight weeks after his ears had been licked.

Some time ago, in the FOREST AND STREAM, we cited some cases of other animals than dogs having rabies, but stated

that we believed that in all well authenticated cases the animals had been bitten by mad dogs. The case of the death of the grandfather of the Duke of Richmond, in Canada, by the bite of a fox, has often been cited, but from later information it seems uncertain whether the bite was inflicted by a dog or a fox. That deaths from hydrophobia have occurred from cats is quite positive. As to the disease caused by the scratch from a cat, Sir Thomas Watson thinks that cats with rabies, licking their paws, might have imparted the disease. A case of hydrophobia, through a scratch inflicted by the tooth of a horse, seems to be authentic. In the last number of the *Veterinary Journal*, the case of a charger, the property of a Captain Cotton, of the Twenty-first Hussars, is given in detail. First noticed on the 14th of September, the animal died on the 17th. The horse had been bitten by a dog in the near hind leg, but it was only afterward that this wound was associated with the peculiar symptoms the mare exhibited and its origin suspected. Now comes the vital question: Is a man who has been bitten by a mad dog, and in whose case no preventive measures have been taken, a doomed man? Sir Thomas Watson writes:

"I have answered this question in the negative already. Few, upon the whole, who are so bitten, become affected with hydrophobia. John Hunter states that he knew an instance in which, of twenty-one persons bitten, only one fell a victim to the disease. Dr. Hamilton estimated the proportion to be one in twenty-five. But I fear these computations are much too low. In 1870 a mad dog in the neighborhood of Senlis took his course within a small circle, and bit fifteen persons before he was killed; three of these died of hydrophobia. The saliva of a rabid wolf would seem to be highly virulent and effective. These beasts fly always, I believe, at a naked part. Hence, probably, the fatality of their bites. The following statement relates exclusively to the wolf: In December, 1774, twenty persons were bitten in the neighborhood of Troyes; nine of them died. Of seventeen persons similarly bitten in 1784, near Brive, ten died of hydrophobia. In May, 1817, twenty-three persons were bitten and fourteen perished. Four died of eleven that were bitten near Dijon, and eighteen of twenty-four bitten near Rochelle. At Barsur-Ornani nineteen were bitten, of whom twelve died within two months. Here we have 114 persons bitten by rabid wolves, and among them no fewer than sixty-seven victims to hydrophobia."

With the utmost respect for Sir Thomas Watson's opinions, we do not place implicit confidence in the wolf story; the dates are too far distant, and the authorities not reliable.

"There is no doubt, however," continues Sir Thomas Watson, "that the majority of persons who are bitten by a mad dog escape the disease. This may be partly owing to an inherent insipidity for accepting it. There are some upon whom the contagion of small-pox has no influence. This peculiarity exists apparently even among dogs. There was one dog at Charenton that did not become rabid after being bitten by a rabid dog; and it was so managed that at different times he was bitten by thirty mad dogs, but he outlived it all. Much will depend also upon the circumstances of the bite and the way in which it is inflicted. If it be made through clothes, and especially through thick woollen garments or through leather, the saliva may be wiped clean away from the tooth before it reaches the flesh. In the fifth volume of the *Edinburgh Medical and Surgical Journal* there is a case described by Mr. Oldknow, of Nottingham, in which a man was bitten in three different places by the same mad dog, namely, in the groin, the thigh and the left hand. The bite on the hand was the last. Now, it seems that but for this last bite on a naked part he might have escaped. It is noteworthy that the local sensations preliminary to the fatal outbreak of hydrophobia occurred only in the hand and arm. The attacking dog probably shuts his mouth after each bite, and thus recharges his fangs with the poisonous material. In a report from America it is stated that of seventy-five cases the injury was received on the hand in forty instances, on the face in fifteen, on the leg in eleven, on the arm in nine. It is this frequent immunity from the disease in persons who have been bitten that has tended to confer reputation upon so many vaunted methods of prevention. Ignorant men and knavish men have not failed to take advantage of this."

As a help toward determining whether a dog has rabies after it has been destroyed, our most eminent authority states that, in examining the stomach of the dog, if unnatural contents be found within, such as straw, hay, coal, sticks, horse-dung, earth, as well as a quantity of a dark fluid like thin treacle, proof is positive that the dog was mad.

To render dogs mad a great many attempts have been made, but without success; dogs have been starved and subjected to many cruel experiments, but without success. The act of using extra precautions, as in summer, is preposterous. As a preventative against one dog biting another, it might be useful if employed all the year round. To muzzle these dogs in hot weather is both cruel and stupid.

The terrible fact that the saliva of a rabid dog or of a human being can impart hydrophobia we are inclined to believe. If any credence can be placed on the authority of M. M. Majendie and Breschet, both illustrious men, two dogs were inoculated with the saliva of a hydrophobic man, on the 19th of June, 1813, and on the 27th of July both dogs went mad, who in their turn bit other dogs, who all showed rabies. That the virus is absorbed in the system is evident from the fact of sheep suckling their lambs, the mothers only having been bitten by a mad dog, when both the mothers and their suckling lambs died.

Now, as to the cure. "The early and complete excision of the bitten part is the only means of preservation in which much confidence can be placed; and even then that is open to a source of fallacy. In the majority of cases no hydrophobia would ensue, though nothing at all were done to the wound. No doubt many persons undergo the operation needlessly. But in no given case can we be sure of this." Mr. Youatt tells of having cauterized more than 400 persons with nitrate of silver, all bitten by dogs unquestionably mad, and that he never lost a case.

In St. George's Hospital some 4,000 persons have been

treated with cautery, and no fatal cases have been reported. But excision, in Sir Thomas Watson's judgment, he thinks, is the most trustworthy and eligible procedure. Though Trousseau recommends actual cautery, by searing with a red hot iron, our authority thinks the free use of nitric acid, by means of a glass brush, would encompass the end desired. *Early excision*, Sir Thomas Watson thinks, is a sure preventive, "but in all suspicious cases, if the operation has been omitted in the first instance, it will be advisable to cut out the wound or its scar within the first two months, or at any time before preliminary feelings on the spot foreshadow the coming outbreak. Later, it would be too late." A case is recorded where these symptoms were manifest, and though amputation was resorted to, hydrophobia was developed, with the death of the person.

"For my own part," writes Sir Thomas Watson, "if I had received a bite from a decidedly rabid animal upon my arm or leg, and the bite was such that the whole wound could not be cut out or thoroughly cauterized, my reason would teach me to desire, and I hope I should have fortitude enough to endure, amputation of the limb above the place of the injury."

Believing hydrophobia to be fatal, this authority recommends a liberal use of the hydrate of chloral, "to quiet the restless agitation and to mitigate the sufferings of its inevitable close."

What should be done by or for a man bitten by a rabid animal? Should the wound be sucked? Such a method as suction would not be expedient. The sufferer might imperil the life of him who gave his aid. The same process as is in use for a snake bite is suggested. *A ligature should be tied as tight as possible above the wound, between it and the heart;* next, a continuous stream of tepid or cold water should be poured from a height upon the wound. This might be done from the spout of a tea-kettle or from a water-tap. But this is simply temporary or palliative. As soon as possible a surgeon should be called in, and excision or cauterization must be used; and, to be safe, both of these methods of treatment.

As far as can be possibly ascertained there has never been a case of rabies that was not discovered to have been propagated. Now, how can this germ of rabies be entirely extirpated? Mr. Youatt proposed that all dogs should be quarantined (separately, of course,) during some seven months, then, if an animal was inclined to have rabies, the disease would determine itself, and the dog could be killed. Sir James Bardsley proposed a similar scheme. Sir Thomas Watson favors this plan, being persuaded that if resolutely grappled with, notwithstanding all the difficulties of enforcing such an act of dog quarantine, the disease might be exterminated.

As to breeds of dogs most prone to rabies, we believe there can be laid down no rule. The reported prevalence of rabies in spitz dogs we are certain had no foundation. The theory has been advanced that dogs of mixed breeds, curs, in fact, had a tendency to rabies. This, too, we are quite sure, has no basis of fact. As to sex of animal, no data worthy of credence have ever been presented, since dogs and bitches may be bitten indifferently by a mad dog. What is positively known, however, is this, that rabies is a disease of animals in the temperate zone, and that in the tropics and in the Arctic regions rabies does not exist. It may exist in New York, and is almost unknown in Savannah, or south of it. The dogs of the Arctic explorers, it seems evident, do get crazy, or insane, together with some other malady not well described, and die, but are not afflicted with rabies.

Starting, then, with this indisputable fact, that if there were no dogs there would be no hydrophobia, it follows that the less dogs we have, exactly by so much are the chances diminished of dogs being bitten by mad dogs, and of the disease being propagated. There should not be allowed any stray dogs in the whole country.

In our last issue we published an interesting letter from Dr. Yarrow, U. S. A., and his method of treatment was precisely like that recommended by Sir Thomas Watson. From Dr. John T. Nagle, Registrar of Vital Statistics of the City of New York, we have received the following data. "The total number of deaths reported to this bureau during the year 1877, from hydrophobia, was four, as follows: One death in persons between two and three years, one between four and five, one between fifteen and twenty, one between fifty-five and sixty."

VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.—No. 10.

BY THE EDITOR.

JANUARY 7, 1878.

MY FRIENDS: As we wander among the imposing remains of the once proud city of Duluth, we are inevitably reminded of ancient Athens, which is magnificent even in its decay. The stately edifices of sandstone abutting on the main thoroughfare in isolated grandeur and individuality; the spacious private residences which here and there occupy the ledges of the overshadowing rock behind the town; the extended avenues; the tremendous sweep of suburbs; the immature local improvements; the metropolitan features grouped around the focus; and, above all, the price of city lots;—these, in the titanic scale of their projection, are commensurate only with the anticipated magnificence of the completed plan. Here, in the golden epoch of ingenious schemes and far-reaching projects, were concentrated the business sagacity and acumen of the land. Shrewd speculators congregated in crowds, like buzzards, upon the long corridors of Col. Hull's notable caravansary, and watched the incoming steamers bringing green

backs and more speculators from the East. Hungry and consuming locusts, grasshoppers, flies and drones swarmed around the bung-hole and got stuck in the molasses. Real estate agents vied in selling to the credulous choice lots at \$5,000 each, upon which it was expected that \$100,000 structures would eventually stand. Stupendous public buildings were designed; and all around the printed plans and elevations thronged a rabble of ex-generals and colonels, cidevant senators, broken merchants, bankers, and impetuous adventurers, jostling each other and scrambling for civic offices and emoluments in the high places to be created. Sitting in the lowly places and gazing up aloft to the summit of the boulder-strown ridge of rock, up whose semi-precipitous acclivity ambitious shanties had already climbed in straggling disorder, one could almost fancy an Acropolis or Parnassus, with Socrates and Plato pronouncing from the top, and declaring, with Proctor Knott, that this was destined to be the greatest place on God's earth!

One early morning, before the sun was up or the citizens had stirred, I toiled with panting effort up one of the outlined avenues, which looked charmingly level on the maps, but was too steep for any vehicle to climb, and when I had surmounted the apex I looked out over a landscape so far-reaching that its scope seemed marvellous. To the eastward Lake Superior stretched out in an expanse which apparently had no limit. A range of rocky bluffs followed the northern shore on the left. On the opposite shore was Superior City, so distant as to be scarcely discernible in the morning light, and between the two lay a placid bay, into which projected a natural causeway which followed the curve of the shore in a parallel line. On the circumscribed level plain below was the business part of the town, with the machine shops and sheds of the Northern Pacific Railroad a little beyond. In the distance a considerable stretch of grass and open water indicated the *debochure* of the St. Louis River, which empties itself over ledges of rock in a series of cascades and rapids. Contemplating seriously the natural outlook and the geographical lay of the land, the advantages of the location in a commercial point of view are obvious; and one cannot help but feel assured that the expectations of those who had hoped years ago to found an emporium at this available gateway of the State and the great West beyond, will yet be realized. Situated at the very extremity of this great inland sea, Duluth is the funnel into which flows the current of all the trade that comes by water. The Northern Pacific Railroad, already extended 550 miles, is the outlet, and all the grid that is carried to and from the mill pays tribute and toll right here. Eventually this great artery of communication will be continued across the continent; meanwhile, notwithstanding its disabilities and disasters, its earnings of the year 1877 show that it can sustain itself. There is a large and growing community beyond its terminus, whence, and also from other points along the completed line, well-appointed stages carry passengers to Deadwood and the embryo cities of the Black Hills. Over these stage routes the traffic has been large throughout the past year, despite the hostilities of Indians and the depredations of road agents.

Between Duluth and Brainerd on the Mississippi River, the country is well occupied with farms, stations and settlements, and one sees little to remind him of border life. At Brainerd, however, trains rest over Sunday, compelling a temporary halt of all through travel; and here at Col. Weed's "Head Quarters Hotel," can be seen typical characters of all sorts. Here are Black Hills' merchants coming East for goods; express agents guarding treasure in *transit*; emigrants, red hot with the gold fever, bound West; gentlemen-sportsmen with dogs, plethoric outfits, and a retinue of servants—"well heeled," as they say out there—going to the grouse country; occasional army officers attached to frontier posts, scouts, trappers, stock-grazers, surveyors, and representatives from British Columbia, factors, merchants, officials, half-breeds and Indians. The latter are frequent visitors who generally set up their tepees on the bluffs on the river side, and along the outskirts of the town, where they lounge, mend canoes, and beg. There are two reservations not many miles off, where they may be interviewed by the curious on their own allotted territory. Very often little knots of passengers by the Deadwood stages may be found in the centre of a crowd, lugubriously relating how the road agents halted them, ordered them to "squat" and "hold up their hands," and "went through them;" just as they did once with old Ben, Halliday, the great overland stage proprietor, holding a double-barrel shotgun within a span of his face, and scratching his nose with the muzzle when he told them it itched. Cautious and experienced travelers, let me say, carry very little money with them; only checks or drafts. Possibly among the miscellaneous throng at Brainerd, are the same veritable desperadoes and highwaymen. It is probable that detectives are there who know them. But they are not recognizable by the chance traveller. If anybody supposes that he will find here desperadoes *en grand tenue*, trappers in buckskin, and bullies in buckram, he will be disappointed. When the dwellers of the plains and mountains pack up to travel East, they do store clothes, and buy or borrow a "clean billed shirt." They voluntarily surrender themselves to the conventionalities of society for the time being, and are on their good behavior. It is a luxury to one who is daily elbowed by the throng on Wall street or Broadway, to notice the social amenities that are observed. One cannot but admire the universal affability of rough men—a marked quietness of manner, gentleness of address, civility in answering general inquiries, careful avoidance of personal jests or practical jokes, a studious disinterestedness in

other people's affairs, and a commendable mind-your-own-business style not appreciated in the South and East. The roughest garb of times covers a brilliant intellect, while the prevalence of superior information on general topics is quickly remarked. The reason for this can be easily understood, on patent ground, namely: It may be taken for granted that any person who has pluck enough to work his way out West and brave the hardships and dangers of pioneer life, has something in him more than the stuff that common men are made of—qualities above the average, and a degree of intelligence requisite to enable him to avoid, combat, and surmount the difficulties that continually beset him. These qualities, engrafted upon native stock, make up the indomitable American character. To cure vanity, selfishness, petulance, loquacity, cholera and pugnacity, try the Western air, young man: it is a panacea.

Brainerd, like Duluth, got a blow under the belt when the Northern Pacific Railroad "went up" four years ago. It was a blow which did not make it double up: it has now about half the population it had then. When all was activity and bustle among its 5,000 people, it was a place for residence or money making. The streets are laid out at right angles in the midst of a pine and hardwood forest; the houses are comfortable and neatly painted; a public square has been set apart among the pines, the underbrush being cut away, and intersecting avenues laid out. On three sides of it are pretty churches. Its farthest limit is the high bluff by the river side, where the Mississippi rolls in deep and placid volume. Its principal business street is built up with stores; but a fire cut out the most pretentious of them some time ago. I notice that most Eastern people have obtained the notion that the frontier buildings of our remote West are dug-outs, log cabins, and tumble-down shanties. They will be surprised to find great school-houses of brick in the open prairie, substantial frame farm-houses, and as tasteful churches and ornate private residences in the towns as can be found in the villages of older States. A very substantial bridge crosses the river, giving appreciable advantages for the capture of large catfish, which take the hooks freely. The Railway Company's offices are elegant and imposing. They are in charge of H. A. Towne, Supt., R. H. Morford and T. C. Fernald, a gentleman whose experience among the Indians, and general knowledge of Indian character, are very large. The "Headquarters" is a large and commodious hotel, noted for its good cheer and the rough gambols of its hospitable landlord, Col. E. W. Weed, a gentleman who has filled many offices of responsibility and trust on the frontier. He had charge of one of the construction gangs which laid track at the rate of (?) miles an hour on the day when the iron ties were joined across the continent. I am indebted to him for the finest turn-out I ever saw let loose on the prairies after grouse.

Let me see how it was: Tom Cantwell, the "Wild Rice Man,"\* had notified me by telegraph to be in readiness on a given morning. I arrived only the night before, but my only preparation involved a change of clothing; for I have my kit always packed and ready. Everything which experience has taught me I need for my personal comfort will be found among its contents, from a rubber blanket to a piece of chalk. So, when the morning came around, I had it stowed in the wagon, and sauntered off to look at my friend's kennel. I found a summer lodging-house, and a winter quarters partly under ground, but well ventilated, inside a high fence inclosing an ample exercising yard. Clambering up a ladder and looking over, I saw a conical sight. All the dogs had mounted to the top of the winter house for better observation, on hearing us approach, and there they sat like the rescued in the painting of The Flood. On the show-bench they could not have been in better position for examination. "That chap there," said Tom, "is my blue pointer 'Yankee,' bred by N. C. Howard, of Dayton, Ohio; the next is 'Blix,' a black pointer, whose sire is Dr. Strachan's champion 'Pete'; those two cocker spaniels are 'Punch' and 'Syrup,' and the springers are named 'Gypsy' and 'Tory.' I think Yankee is as good as they make anywhere."

Well, it came to pass in due time that we tried the mettle of Yankee's breeding, and a truer dog I never care to shoot over. Ned Hicks was along with his blue pointer Count, Yankee's sire, and the setter Sullivan. Hicks is one of the surest wing shots I ever saw, and death on hawks when no chickens are flying. He made them "come" every time, often at incredible distances, shooting from the wagon as the team walked at speed over the prairie. Together we shot four varieties of hawks, I believe. By the way, a fast trotting horse is a most desirable acquisition in grouse shooting, and worth thirty per cent. more for a tally than a slow one. Indeed, for constant daily service on the plains or mountains the fast walker is of more value than a trotter. For travel day in and day out one seldom cares to trot. A good walker ought to do four miles an hour for ten hours per day for weeks together. I once rode 1,200 miles in five weeks over the mountains of the Blue Ridge, and the beast got fat on it.

On that trip we three, in Col. Weed's wagon, beat over many miles of prairie on both sides of the river from Brainerd down to Lake City, and across the Mississippi to Fort Ripley, and eighteen miles beyond. If we got but few birds it was not the fault of outfit, dogs, or gunners. Two more tractable horses under fire or better steppers on grass I never saw. The dogs had rare pluck, as the sequel showed. There was plenty of ice in the chest, pure water in the butt, and

\* So designated because he has devoted much attention to the cultivation and distribution of wild rice in places where it is not indigenous.

abundant provisions in the larder; of camp stuff, guns, and ammunition, a full complement. All the conditions were favorable for a wagon load of birds except the hot and dry weather, which, as all know, occasioned absence of birds. But the scarcity of birds only made the hunting better. ("The less game, the more hunting," is an epigram which has become an axiom.) In the comparative cool of an early morning we helped the dogs into the wagon and "lit out." The dust flew in clouds as we bowled out of town at a spanking gait, settling in a white shower upon the foliage of the pin-oaks that girted the roadside for several miles. The country was a wooded flat, with occasional undulations, and sometimes a dry bed of a creek, or a gully which the spring rains had washed out. After several miles driving the oaks broke off abruptly, skirting a broad treeless and fenceless prairie, overgrown with low scrub and grass. The outlook was monotonous, relieved only by an isolated elm or burr oak in the far distance, or a tall pine towering like Anak in the front ranks where the forest met the open field. Here the wagon left the road abruptly; the dogs were bounced out of the bottom and motioned aside, and in five minutes we were alert, with Count and Sullivan ranging wide, and Yank in the middle ground. As soon as the dogs showed up we were over the wheels and off to the front in a jiffy, while the driver followed with the wagon at discretion. Presently a white gleam shot up out of the green, glowing for a minute in the sunshine—then another, and one more—giving each man a bird, and every one dropping in handsome style to first barrels. But no more got up, and so the dogs were told to "seek dead," and presently they handed us tenderly the limp and warm bodies, from which the bird-life had just flown heavenward upon the little clouds of blue smoke that floated off on the air. We picked up two or three more birds on that prairie after an eight-mile tramp, and then tossing what we had shot into the wagon box, called the dogs in, gave them water, and drove on across-field to a line of cottonwoods which marked the banks of a river, still in good stage of water. There we camped in a log cabin belonging to a well-to-do Frenchman who runs a large grist mill which grinds all the grain for a circumjacent area of thirty miles in diameter. The Frenchman kept an inn, of which our log cabin was one of the detached dormitories. Its only furniture was a table, which was more convenient in some respects than either pegs, shelves, or brackets; but there was ample room on the clean floor for spreading many skins and blankets, and there we luxuriated in sleep and rest. In the morning we walked a few rods to another log house, which was a combined kitchen and dining room, and breakfasted on prairie-chicken, bacon, and potatoes. In a year or two that Frenchman may feel able to erect a handsome and commodious dwelling commensurate with the size and importance of his grist mill, which cost, I believe, \$16,000, and is really an extensive establishment.

Our work that day began at sun-up. At noon we dined sumptuously at Lake City, and at dusk reached Dan Moore's stock ranche, on the Mississippi River, opposite Fort Ripley, and about two miles distant from it. Although we worked hard throughout we talked low. The weather was too dry for scent, and there were evidently no birds in the country. If several dogs together range faithfully as ours did, when the scent does not hold good to the ground, they will cover a good deal of area and run over nearly every rod of it; and if birds are there they will flush many that they do not nose of. (Knows of, is good!) Of course some birds may fail to discover themselves, but the presumption is that if no sign whatever is manifested the birds are not there. Moisture, of course, makes a hot scent. Flowers are sweetest when the dew is on them. The grasses give out pungent odors. The scent of the bird lies low and elings to the ground and surrounding verdure. Hence the disadvantage of a drought to the sportsman. I speak of this as a novel fact, but because most experienced writers omit instructive points, which seem trivial to themselves, but which are especially valuable to the tyro. I for one am not ashamed to take my college diploma into the A B C class.

There are not in autumn so many agreeable contrasts and colors in Minnesota as in mid-summer. In the higher latitudes the atmospheric illusions are not so constant and striking as they are farther south. The scenery is more like that which one sees at the east. The varieties of plants and trees are much the same, and the big belts of timber, which cross the State at intervals, remind me of Maine. It is only when one strikes off into an open prairie, out of sight of all landmarks, as it were, like a ship at sea, that he feels any novelty in the situation. At such times the inexperienced new-comer is bewildered, lost and helpless. Traveling over the boundless expanse seems like voyaging in a balloon, and open-air existence becomes a sort of day-dream, fleecy and without form. In parallel districts along the Mississippi River, however, one need only consult his compass and follow due east or west to extricate himself from a dilemma, and find a highway that will lead him to friendly shelter, or to New Orleans.

One seldom sees any snakes in this region except the harmless grass and garter-snakes; but the prairie is bored by sand-rats and honeycombed with gopher holes, into which unwary or unlucky horses often step with serious damage. There are squirrels among the oaks and hazels, screaming jay-birds on the tree-tops, and rabbits that hide in the bunches of grass, where they make their forms. Crows, hawks and flickers are very common, and black-birds often fill the air in passing clouds of vast extent.

Coursing along beside the Father of Waters at eventide, when the after-glow of sunset rested on its broad bosom and illumined its wooded islands, we listened to the evening twitter of the cow-buntings and the sharp call of the cat-birds. Gradually a sense of weariness and hunger came over us. By the time the extensive hamlet of Dan Moore's ranche lay in sight, we were ready to stretch our limbs anywhere, in hay-stack, loft or chamber. Buildings and stockyards lined both sides of the road for many rods. Barns gushed with garnered hay and grain, and numberless stacks outside complemented the superabundance of a fulsome harvest. Lowing of kine and the bellow of blooded bulls made the air resonant. Turkeys and chickens without number leisurely sauntered off to roost, and great corpulent hogs wandered about at will, whose insolence and intrusiveness the artifices and courage of the good dog Ranger could hardly circumvent or check. When he had to take them by the ears they would give him a side-long glance to see if he "meant business," and then shuffle off with a shrug, turning up their noses and saying, deprecatingly, that it was "rough, rough, rough!" The place was crowded with wagons and wayfarers, like a fair or market-place. Possibly there were thirty bravny farmers, wayfarers, herders and sportsmen, all of whom, it seemed, desired accommodation for man and beast, and lodgings for the night. Now, it so happens that Dan Moore, although he is one of the wealthiest men and most frequent prize winner in the State, has pitched his tent exactly on that part of the traveled thoroughfare which is most convenient for the wayfarer and intermediate to other focal points. There are no other houses near him, and so he is obliged to entertain, willy nilly. His house is a large two-story log house, fully fifty feet front, and being in process of repair the outside sheathing and clap-boards had been torn off, leaving spaces between some of the logs large enough for a man to shove his leg through. All the partitions were down, making one immense room in which a portion of his guests bunked. (Mosquitoes might have been troublesome but for bars which carefully protected the windows.) Other guests found lodging room in garrets, barns, outbuildings and haystacks.

Before apartments had been allotted, I laid me down upon the grass beside a bob-sled to snatch preliminary rest. The sky had become overcast with clouds, threatening rain; it was so dark that objects were scarcely visible. There was some commotion among a gang of cattle—bulls, cows and heifers—which were self-corralled in an angle of the large barnyard, but practically at liberty. Dan sent Ranger to quell the disturbance, and his efforts set the herd in motion until he had them well scattered over the premises. They hustled all about the place, and charged hither and yon in droves and by twos and threes, investing the bob-sled and making my situation precarious and anything but cheerful. I made myself as thin as possible and snuggled closely to the side of the sled, for a while, but took the first chance to "skin out" and make a break for safer quarters.

This dog Ranger was the best trained watch-dog I ever saw, a cross between a bulldog and a mastiff, if I am not mistaken. He was perfectly docile and harmless. Unbidden he would never molest or threaten man or beast; but having once received orders from his master he would tackle the prize bull or charge the barn door without hesitation. He was not a very large dog, but very powerful. His habitual amiability was the strongest part of his composition, for trained watch-dogs are almost invariably ferocious, the system of training tending directly to make them sour. What method of instruction Dan employed to combine opposite characteristics in the one animal I know not. The usual method, as given in printed works, would not answer at all.

A little rain fell during that night but held up in the morning, when the clouds being broken, we determined to cross the government swing ferry in the flat-boat, which was worked by the only two soldiers left in charge of the now dilapidated and decaying post called Fort Ripley. Extending our journey many miles beyond the Mississippi we made a small bag of sharp-tails, and turned into a farm house for dinner. When we started for home the sun was shining, but a tremendous storm of rain soon came up on a driving mass of clouds from the west, and from that time on until we were housed at our hotel in Brainerd, at 9 o'clock at night, it poured in drenching torrents. Waterproofs were but small protection. Everything in the wagon was afloat and drenched. There was no room for the dogs, and the poor creatures had to foot it for seven hours, twenty-four miles, in the continually deepening mud and water; yet, to their staunchness, be it said that they showed few signs of distress the next day, and on the day succeeding were as good as ever. The dry prairie, which was dust the day before, became a shallow lake. In the groves of oak the rain beat down so as to raise cisterns of foam several inches high around the butts of the trees. The dry beds of the creeks were bank-full and scarcely fordable. There were wash-outs all along the line; and in the dark traveling became hazardous. Glad were we when the lights of the town loomed in sight. The streets were all under water, but taking our bearings by the beacon that gleamed from the Head Quarters Hotel, we drove up along side the welcome platform through a lake eight inches in depth, and making one desperate leap for shelter, speedily "shucked" ourselves and were happy once more.

The next day was Sunday. The sun shone out warm and bright, and no drop of water remained on the sandy bottom where the flood had risen the night before. HALLOCK.

—THE FOREST AND STREAM is \$4 per year in advance; \$2 for six months; \$1 for three months.

[FROM OUR OWN CORRESPONDENT.]

SPORTING CLUBS AND SPORTSMEN OF RUSSIA.

ST. PETERSBURG, Dec. 3, 1877.

EDITOR FOREST AND STREAM AND ROD AND GUN:

Sir—One of the features of St. Petersburg is the sportsman's club. These exist in great numbers. Hares and foxes are found in abundance within twenty miles; elk, wolves, and bear within thirty miles. For this city is not the natural product of a thickly peopled country, but it was founded on a marsh, and built up by forced labor and forced residence, at immense expense, in order that Peter the Great might have an eye into Europe. The Petersburgers, too, exceed exercise badly, for he rarely walks, and never rides on horseback. These clubs are expensive luxuries, for besides the annual dues, which are not small, no member can spend a day at the "chasse" without its costing him from eight to eighteen roubles—\$4 to \$9—according to the distance of the club-house from the city, the nearest being the most expensive.

Sunday is the favorite day for the "chasse," though it frequently takes place on other holidays, mostly saints' days, of which there are about eighty in the Russian calendar, making, with the Sundays, about one-third of the year holiday, when all labor is suspended. How can a poor country grow rich at this rate?

Every Saturday afternoon the trains take large numbers of sportsmen into the country. They are dropped at the stations along the roads, principally along the rail to Moscow, and thence into Finland, at distances varying from ten to thirty miles from the city. The club-house is lighted and warm, and a good dinner, provided by the steward, to be preceded by the inevitable "zacsaska." Why the Russians insist upon eating a preliminary dinner just before the regular meal I have never been able to understand. No people do it but the Russians and Swedes. They say it increases the appetite. My experience is that it takes it away. In a side room, or at the further end of the dining-room, you find spread out on a separate table, caviare, cheese, pieces of salt fish, salmon and herring, anchovies, bologna sausage, etc., etc., all to be washed down by a glass of kimmel, or kimmel and bitters, cognac, or wodka. Wodka is the Russian brandy, the poorer quality being made from potatoes, the better from wheat and rye. Five or ten minutes' devotion to these, and you have dined pretty well, whereupon you are expected to sit down and consume your regular dinner of many courses.

After dinner follows a rubber of whist, with low stakes, for though the Russians have the name of playing high at the public gambling tables of Europe, and there are of course some high players at St. Petersburg, yet as a rule they play low. The play at the clubs is by no means as high as in London or Paris.

It was my good fortune to be invited by a friend to attend one of these parties. We took the Finland train at six o'clock in the evening, and at half-past six reached our station. There carriages awaited us, and we drove to the club-house, some ten minutes off. The house is like a small hotel, with a large dining-room, a small-sitting room, and many small bed-rooms opening upon the passage, all heated by the Russian stove, a mass of bricks and cement, retaining the heat long after the fire is extinguished. There is an impression in other countries that this heat is disagreeable, and even unhealthy, but I have not found it so. I believe that it is because these stoves are always heated with wood.

Seven o'clock found us seated at dinner in a dining-room hung with sporting pictures, heads of elk, and stuffed capercaillies, the king of Russian birds. The most striking picture was a large oil painting, representing a wolf attacking a peasant. This was an actual event, but is a very rare one. In packs, wolves, when hungry, will attack anything, but scarcely ever when single. In this case the beast got the worst of it, for the peasant had been chopping brush wood, and was armed with his broad-bladed hatchet. After dinner we had our whist, the game being the same as with us, but the counting complicated and curious, the principal peculiarity being, that the honors contribute nothing to winning or losing the game, while they do contribute largely to the amount of the stakes, being counted in the number of points won or lost, when the game has been decided by the tricks.

At six o'clock the next morning a bugle rang through the hall, and we were all soon about. At half-past six a substantial breakfast was ready, with excellent coffee, and at seven we were en route, each man in his private cart, without springs, drawn by one of those intelligent, tough, spirited little Finland ponies.

We had to drive twelve verstes—eight miles—through water and fearful ruts; and the dorsal column suffered in consequence. There is nothing like the Russian boot for a tramp through mud and water. It comes up to, or near, the knee, as you prefer, and a strap fastens it tight to the calf to prevent the water from penetrating between the boot and the leg. It is really waterproof, light, warm and soft, and you may walk on it for miles without fatigue; neither is it dear, for eight dollars will purchase a pair that will last for years. There is another capital Russian institution for cold weather or for exposed stands when hunting—a sheepskin coat. The Russian peasant wears it universally. For sportsmen they are made of finer and softer wool, and embroidered fancifully with colors. They are perfectly waterproof. They are warm, with the wool inside, and reminds one forcibly of the deer-skin coats worn by our trappers on the plains.

As we approached the scene of action we overtook a num-

ber of men, women and children hurrying along the road. These were the beaters, who had got up long before daylight to reach the ground. They are paid fifty copecks—twenty-five cents—for their day's work. Not long ago they followed the example of their betters in western lands and struck for fifty cents. But the sportsmen were firm. They said that the hunts always took place on holidays, and that the beaters enjoyed the sport quite as much as the sportsmen. Plenty of beaters were found willing to come from distant villages for the old wages, and so our strikers surrendered at discretion.

Arrived at our first stand, we were posted along a wood-road, some fifty yards apart. We numbered fourteen guns and about forty beaters. They told me that the guns were too many for the beaters. There should be at least five beaters to each gun; five are better. The chief huntsman, distinguished by a red cap and a bugle, after he had stationed us at our different posts, disappeared in the woods followed by his motly crowd. There was perfect silence for half an hour, when a bugle note was heard, and in an instant all the horrid noises that human ingenuity can suggest filled the woods and gradually approached us. But while the noises did, the game did not. One solitary white hare crossed the road and was blazed at by my left-hand neighbor. I gave her one barrel, but made a beautiful miss. Then we changed guns and tried it again; but the weather was fearfully against us. The woods were full of water, and it began to rain. In the short days of November we had time for but five beats, the result of the whole being twelve hares and one capercaillie, less than one head of game to a gun.

The white hare is a beautiful animal, quite as large as the English hare, and three or four times as large as a rabbit. Nature has provided the poor brute with an admirable defence. In summer it is brown and is with difficulty distinguished from the ground. In winter it is white, and it is almost impossible to distinguish it from the snow—in fact the sportsmen do not attempt to shoot it when the snow is on the ground. The white hare does not take to rapid flight like its English sister, but hides itself in the hollows and hops quietly along behind bushes, trying to save itself by concealment rather than rapid flight.

The capercaillie, cock of the woods, or *titirka*, as the Russians call him, is a beautiful bird, weighing about twelve pounds. The plumage of the cock is very brilliant. Although not exactly like that of the cock-pheasant, it bears more resemblance to it than to any bird I can name. He lives almost exclusively upon a wood berry, resembling our winter-green, and his flesh derives a very pleasant flavor from it. In the spring he is stalked with great success. The wicked sportsman takes advantage of his gallantry to his mate. He sits upon a branch and calls her. For a minute or two his note is a simple chuck, then follows a prolonged note, impossible to produce in writing, but something like a hiss. While uttering this he puffs out his throat, shuts his eyes, closes his ears, and remains literally blind and deaf. During this instant of time the wily sportsman runs in on him. He has time for three or four steps, but must then stand like a rock. The bird seems to take no notice of a stationary object. Again the poor, anxious cock calls to the wife of his bosom, and again the fell destroyer approaches, till, finally, a well directed shot tumbles him from his perch, and he sings no more. The widow remarries.

There is one thing which is never neglected on these sporting occasions in Russia—the supply of the inner man. A cart had followed us all that distance, loaded with cold meats, cheese, caviare, and beer and claret. A table was spread in the opening in the woods, boards rigged up for seats, and full justice done to the provisions. A very dark drive, in which we were obliged to trust more to the sagacity of our ponies than to the skill of our drivers, landed us all safely at the club-house. A comfortable dinner, followed by some charming songs by the Belgian Minister, who is a member of the club, brought us to ten o'clock, when we were whittled away in *troikas* (three-horse caleches) to the city, and the club-house remained silent and empty, till another holiday hunt gathers its members and their guests within its hospitable walls.

W. W.

GAME PROTECTION.

NEW JERSEY.—The citizens of Ocean and Burlington Counties held a mass meeting at Barneget the 3d inst., at which it was resolved that to prevent the total extinction of the fishing a law should be passed prohibiting all fishing with fykes, pounds, seines, from Jan. 1st to Oct. 1st, for a period of three or five years. Committees were appointed to confer with the representatives of other counties. We hope to see determined action and good results.

POTTSVILLE GAME PROTECTIVE ASSOCIATION.—The Pottsville Game Protective Association have just received their first invoice of live quail. The total number shipped was one hundred and eighty-six; the loss by transportation, twenty-four; the loss since date of receipt (Dec. 31, 1877), sixteen. The association numbers eighteen members, and have leased the shooting right of some three thousand acres of the best land in our county. This has been found, after one year's trial, to work satisfactorily. The Association thinks seriously of enlarging their grounds, and are purchasing and preserving quail for the purpose of stocking the same. The officers of the Association are: Col. J. M. Wetherill, Pres.; J. Dummeller, Vice-Pres.; Major H. S. Thompson, Sec'y and Treas.

WHEN ARE QUAIL PROPERLY "IN SEASON?"—It is a strange inconsistency in the game laws which permits us to shoot quail in Delaware until Feb. 15th, while in the adjoining State of Pennsylvania we are prohibited after Dec. 15th. In Maryland the close season begins Feb. 1st.

THE COUNTRY,

A weekly journal of sixteen pages, devoted to the Kennel, Shooting, Fishing, Fox Hunting, Archery and other outdoor sports. Has also departments treating of Natural History, The Garden and Poultry, Pigeons and Pets. Edited by Wm. M. Tileston, late associate editor of FOREST AND STREAM. Subscription price, \$3 per year. Specimen copies free. Address, "THE COUNTRY PUBLISHING ASS'N," 33 Murray street, New York.—[Adv.]

The Rifle.

TEAM SHOOTING.

FOR THE "FOREST AND STREAM AND ROD AND GUN" MEDAL.

Under the following conditions this journal proposes presenting to the best team, members to belong to some regularly organized association, a gold medal: Shooting to take place January 23, 1878, at Union Hill Schutzen Park.

RULES AND REGULATIONS.

Each team to consist of twelve men; ten shots per man. Shooting, off-hand; distance, 200 yards, any rifle; open to all clubs or associations.

No person allowed to compete in a team unless he is an active member of the club for ninety days. Practice from 10 A. M. to 1 P. M.

Team shooting to commence at 1 P. M. Targets to be drawn for by each captain of each team.

Entrance fee, \$6 for each team. Ring targets to be used, three-quarter inch rings. After deducting the expenses for the markers, the balance will be divided to the second and third highest teams.

Shooting to be governed by the Schutzen Bund rules. All teams can enter for the competition at the FOREST AND STREAM AND ROD AND GUN office, 111 Fulton street, city, on or before January 20, 1878.

Captains of teams entered will constitute the committee.

We are pleased to state that the following teams will participate in the match for the FOREST AND STREAM AND ROD AND GUN gold medal: A team from the Jersey Schutzen Corps, one from the New York Schutzen Corps, one from the Independent New York Schutzen Corps, and the team of the Zettler Rifle Club. It is likely that from six to eight teams will compete. Mr. John Raschen has kindly consented to act as shooting master.

SIXTH ANNUAL REPORT OF THE NATIONAL RIFLE ASSOCIATION OF AMERICA.

NEW YORK, January 8, 1878.

Mr. President and Gentlemen of the National Rifle Association:

The sixth annual report of the Secretary embraces the year 1877.

The reorganization of the Board of Directors took place at a special meeting of the Board, held Tuesday, January 9, 1877, immediately after the adjournment of the fifth annual meeting of the association, with the following gentlemen as members:

Messrs. Stanton, Wingate, John Ward, Judd, Fulton, Sanford, McMahon, Beebe, Story, Casey, Holland, Scott, Gildersleeve and Sehermerhorn, together with Gens. Townsend, Woodward, Knox, Shaler, Dakin, Carr and Husted as ex-officio members.

The result of the balloting for officers and members of the Executive Committee was as follows:

Mr. N. P. Stanton elected President, vice Gen. Shaler; Col. G. W. Wingate elected Vice-President, vice Gen. Woodward; Mr. G. S. Sehermerhorn, Jr., re-elected Secretary; Gen. D. D. Wylie, elected Treasurer, vice Gen. McMahon; Gens. Shaler and Dakin, and Col. Gildersleeve were elected to serve with the officers as members of the Executive Committee.

At the regular meeting of the Board of Directors, held February 6, 1877, Gen. D. D. Wylie having been appointed Commissary General and Chief of Ordnance of the State of New York, vice Gen. K. Knox, thus becoming a director ex-officio, resigned his directorship by election, and nominated Gen. W. G. Ward to the vacancy thus created, who was unanimously elected.

The directors retiring January, 1878, by reason of expiration of term, are Mr. D. W. Judd, Major Hy. Fulton, Lieut.-Col. E. H. Sanford, Gen. M. T. McMahon (resigned October 2, 1877), Col. John Ward, who was elected January, 1876, for two years to fill vacancy, and Gen. W. G. Ward elected as previously stated, to fill vacancy for the year. There are, therefore, six vacancies to be filled at this time.

During the year past the terms for which the following named gentlemen were elected honorary members expired, viz.:

Mr. James Gordon Bennett, March 3, 1877; Major Arthur B. Leach, October 6, 1877; Col. Hy. G. Shaw, December 1, 1877.

Mr. E. A. Buck, editor of the *Spirit of the Times*, was elected an Honorary Director of the Association for the full term of three years at a meeting of the Board of Directors, held Sept. 6, 1877, in recognition of his munificence in donating \$1,000 in gold as prizes in the *Spirit of the Times* long-range match.

At the first regular meeting of the Board, held February 6, the President announced the Standing Committees for the year as follows:

Executive Committee—N. P. Stanton, President; Col. G. W. Wingate, Vice-President; Geo. S. Sehermerhorn, Jr., Secretary; Gen. D. D. Wylie, Treasurer, ex-officio members. Gen. Alex. Shaler, Gen. Thos. S. Dakin, Col. H. A. Gildersleeve, elected.

Range Committee—Col. G. W. Wingate, Chairman; Capt. J. G. Story, Col. Geo. D. Scott.

Finance Committee—Hon. D. W. Judd, Chairman; Lieut.-Col. F. H. Sanford, Gen. W. G. Ward.

And in accordance with a resolution adopted at this meeting—

Prize Committee—Col. J. Ward, Chairman; Capt. W. C. Casey, Major Jos. Holland.

There have been forty-seven new life members during the past year, of whom forty-one have paid the usual fee, four had the position conferred by vote of the Board without expense to them, and two were offered and won as prizes during the late fall meeting.

A falling off is to be noted in the number of annual mem-

bers, owing possibly to increased facilities offered to members of the National Guard by contract with the State authorities.

Sixteen of the silver life membership badges have been issued during the year, and one duplicate (No. 7), making seventeen in all. The numbers running from fifty-five to seventy, both inclusive.

Twelve rifle clubs or associations have affiliated for the year, including two military organizations affiliated at half membership rates; these are as follows:

- Seventh Regiment Rifle Club, New York City; California Rifle Association, San Francisco, Cal.; Massachusetts Rifle Association, Boston, Mass.; Amateur Rifle Club, New York City; Amateur Rifle Club, Rochester, N. Y.; Crescent City Rifle Club, New Orleans, La.; Columbia Long Range Rifle Association, Washington, D. C.; N. Y. Stock Exchange Rifle Club, New York City; Partisan Rifle Club, Hudson, N. Y.; Hackensack Rifle Association, Hackensack, N. J.; Co I Seventh Regiment, N. G. S. N. Y., Washington Grey Troop Cavalry, First Division N. G. S. N. Y., New York City.

And in this connection the hope is expressed that the advantage of having the matches of affiliated local clubs printed upon the monthly programmes of the Association will be more fully appreciated by such clubs, especially those connected with the military organizations of the First and Second Divisions, and lead them to follow the example of those mentioned above. Five States and the District of Columbia are represented.

The monthly or special matches have been as follows: *Spirit of the Times* badge, No. 1. Three competitions—May 19, June 16 and July 14, being finally won upon this latter date by Lieut.-Col. E. H. Sanford.

*Spirit of the Times* badge No. 2. Two competitions, Oct. 20 and Nov. 17.

*Turf, Field and Farm* challenge badge, No. 2. Six competitions, viz.: June 30, July 28, August 25, September 29, October 20 and November 17.

Marksmen's Badge, presented by Mr. Poppenhusen. Two competitions, May 5 and June 6, finally won by Private A. B. Van Heusen, Twelfth Regiment, N. G. S. N. Y.

Marksmen's Champion Badge, presented by Col. G. W. Wingate. Four competitions, Sept. 29, Oct. 13, Oct. 31, and Nov. 10, finally won by Private Wm. Robertson, Seventy-first Regiment, N. G. S. N. Y.

Wylie Badge. Three competitions, August 1, Oct. 17, Nov. 3.

Skirmishers' Badge. Two competitions, Oct. 27 and Nov. 14.

Winchester Company Match. Two competitions, May 12 and June 23, finally won by Capt. J. E. Stetson, of New Haven, Conn.

Winchester Rifle Match. Two competitions, Oct. 27 and Nov. 14.

Parker Gun Match. Six competitions, May 16, June 30, July 21, Aug. 18, Oct. 13, and Nov. 10, when it was finally won by Mr. C. E. Blydenburgh.

Ballard Mid-Range Rifle Match. Five competitions, June 20, July 11, Aug. 15, Oct. 10 and Nov. 7.

Sharps Rifle Company Prize, \$350 gold. Five competitions were shot during the year, viz.: May 5, June 9, July 14, Aug. 4 and Oct. 6. It was also placed upon the programme for November, but failed to obtain the ten entries as required by the conditions. According to the conditions of this match one-quarter of the entrance money received at each competition is to be added to the principal sum, and these several amounts were: First competition, Oct. 23, 1876, \$4.25; second competition, Nov. 11, 1876, \$3.75; third competition, May 5, 1877, \$3.50; fourth competition, June 9, 1877, \$4.75; fifth competition, July 14, 1877, \$5; sixth competition, Aug. 4, 1877, \$3.50; seventh competition, Oct. 6, 1877, \$2.75; total (currency), \$37.50.

Remington Prize, \$300 gold. Only three competitions were shot during the year for this prize, April 14, May 19 and June 23, although it has been announced regularly upon each monthly programme, having failed to obtain on each occasion the required ten entries to fill. Perhaps some modifications of the conditions might be agreed upon by all those interested which would make the competitions for this prize more attractive. It is probably a matter of regret to many that what was understood to be the purpose of the parties who offered this prize, namely, the obtaining of a record of the average results likely to be produced by the use of the rifle and ammunition as furnished from the manufactory, and while it may be conceded that the experienced riflemen will obtain with ammunition prepared by himself a better result, still it would be welcome information to many to feel that they need not debar themselves from a match or practice day should it come upon them unprepared with their own ammunition; but that the worst that they would have to anticipate would be a difference which they could be prepared to submit to rather than let pass an unexpected opportunity to indulge in their favorite pastime.

It is respectfully suggested that the Association should make application for the amounts of these capital prize that it may have them in its own possession, particularly as they may not be won for a long time to come.

The average entries have exceeded those of last year, and reference is made to the tabulated statements presented herewith for the detailed scores in each competition.

The number of special match competitions shot during the year is largely in excess of any previous one, owing to the fact that some matches were shot twice in one month, and the introduction of the plan of making Wednesdays as well as Saturdays match days, and also to the announcement of two and sometimes three matches for the same day. But two protests of any importance have been made during the year, certainly a creditable circumstance to all concerned.

A new feature this year at our fall meeting was the Inter-State Long Range Match. The introduction of this match is due to Gen. J. B. Woodward, who early in the year suggested it in connection with the announcement of the additional interest excited in the Inter-State Military Match by the circular issued to the Adjutant-Generals of the different States by Gen. Townsend, Adjutant-General, New York. These Inter-State Matches, as a consequence of the success attending them this year, have assumed an importance hardly surpassed by the great International Match. The terms of the Inter-State Long Range Match require that all associations or clubs which may desire to enter the competition must affiliate with the National Rifle Association. As a consequence of this provision there was an addition to our roll of affiliated organizations, in one or two instances as late as time of making entry for the match. It is the opinion of many of our members that in this Inter-State Match but one team should be permitted to represent a single State, such team to be selected in the manner agreed upon by the riflemen of such State among themselves. The consideration of the subject is respectfully recommended.

In all, during the year just past, there have been 69 matches

shot at Creedmoor under the auspices of the association, as follows:

Spring Meeting, 8, including Leech Cup Match, under auspices Amateur Rifle Club; Fall meeting, 15; monthly matches, 46.

Attention is called to the following list of donors of prizes for the year 1877:

Mr. J. H. Stoward, optician to the Ass'n, London, barometer, field glass and telescope; J. F. McLaugh, tent; The Commander-in-Chief S. N. Y., trophy, value \$500; Messrs. Tiffany & Co., silver vase; H'dg're, S. N. Y., two trophies, value each \$100; Messrs. E. Remington & Sons, Creedmoor rifle; Winchester Arms Co., three rifles; Mr. E. A. Bach, editor *Spirit of the Times*, cash (gold) \$1,000; Messrs. J. O. Moore's Sons, revolver; Mr. Homer Fisher, ammunition case; *Spirit of the Times*, gold badge, No. 2; *Turf, Field and Farm*, gold badge, No. 3; Messrs. Schoverling & Daly, Ballard rifle; Mr. F. B. Van Siclen, Parker shot-gun; Col. G. W. Wingate, Champion Marksmen's gold badge and Winchester repeating rifle; Gen. Hiram Duryea, "Skirmishers'" gold badge; Gen. D. D. Wylie, Wylie gold badge.

At a meeting of the Board of Directors, held Feb. 6th, on motion of Capt. J. G. Story a resolution was adopted to the effect that the Treasurer be requested to call upon the officials of the Long Island R. R. Co. in reference to price of railroad tickets to Creedmoor, and also to endeavor to obtain increased facilities for the purchase of tickets by our members by the R. R. Co. permitting their sale at the office of the Association. In accordance with this resolution, Gen. Wylie, the Treasurer, called upon the proper parties and effected such arrangements as enabled him to procure tickets for sale to our members and the National Guard in packages of five "round trip" tickets for \$1.75, thus reducing the cost of excursion tickets to Creedmoor from 50 to 35 cents. These tickets have been kept on sale at the office of the Association, very much to the satisfaction of the members.

At the regular meeting of the Board of Directors, held April 3d, the Range Committee reported that the contract with the State had been made upon the following terms: The Association to furnish twenty targets and markers for three days in each week for the use of the National Guard, and the State to pay \$4,500 in consideration thereof.

Early in the year the President called attention to the fact that the Association was not possessed of a corporate seal, and a committee was appointed to procure designs and estimates of cost, and upon a final report made at the meeting of the Board of Directors on the 6th September, the present seal of the Association was adopted. Having regard for the interest attached to everything connected with the great International Match, the Secretary has thought it judicious to prepare a separate report, as last year, upon that subject, and attention is respectfully called to the same.

At one of the first meetings of the Board for the year a committee was appointed to prepare suitable resolutions of acknowledgment to be presented to Gen. J. B. Woodward, Executive-President, for valuable services rendered by him in various capacities to the Association since its organization. At Gen. Woodward's express desire this was to be done without expense to the Association, and at the meeting of the Board of Directors, held December 10th, this committee reported to the Board a copy of the resolutions prepared by them, and that day presented to Gen. Woodward, together with the speech of the Chairman upon the occasion, which the Board accepted and ordered to be printed in the next Annual Report of the Association. For this purpose they are presented, as follows:

General Woodward—You will remember that shortly after you retired from the office of Vice-President, the directors expressed a desire to convey to you in some appropriate manner their appreciation of your services to this Association from the time of its organization. In pursuance of that desire they appointed a committee, which I have the honor to now represent, to draft and present to you suitable resolutions. The committee could not hope to more than partially express in the resolutions the obligations which the riflemen of America, as well as your associate directors, were under to you for the aid you contributed in giving character and permanence to this favorite amusement; and we trust that your estimate of our personal esteem will not be measured by so imperfect a standard as the resolutions furnish; but, such as they are, we present them to you with the hope that, while they fail to express our sentiments as fully as we might wish, you will receive them and give them a place in your home, where your family and friends may, in time to come as well as the present, learn by them that your associates were not entirely unmindful of the services you rendered in permanently establishing rifle-shooting in America. And if their personal shall be the means, in the slightest degree, of encouraging others in the exercise of those noble qualities of honesty and uprightness, which have been, and are, so conspicuous in your character; or if, in after years, you shall find in them a reminder of pleasant associations, then this testimonial shall not have been prepared in vain. Mr. President and gentlemen, your committee propose the health of Gen. John B. Woodward. May he long live to enjoy the respect, the esteem and the love of friends no less true than those which now surround him.

**Board of Directors National Rifle Association:**

Gentlemen—The committee appointed to draft resolutions expressive of the thanks of the directors to Major-General John B. Woodward for the services rendered by him to the National Rifle Association, beg leave to report that they have artistically engraved and presented to General Woodward the following, without exp. use to the Association:

Whereas, Major-General John B. Woodward was one of the incorporators of the National Rifle Association, and has since the date of its organization been an active and valuable official therein, filling, with honor and credit to himself and with great benefit to the Association, the responsible offices of Treasurer, Vice-President, Chairman of the Finance and Range Committees, and Chief Executive Officer at important Prize Meetings; and  
Whereas, in the discharge of the varied and arduous duties of the positions above named, and in his intercourse with the officers and members of the Association, General Woodward has constantly exhibited the rare qualities of a zealous, competent and faithful official, combined with a courteous and gentlemanly demeanor toward all; and  
Whereas, General Woodward has, by the energy and ability displayed in rendering his voluntary services, greatly encouraged the introduction of rifle-shooting as a popular and gentleman-like out-door pastime among the American people, and by his active co-operation contributed to the permanent establishment of the National Rifle Association of America; now, therefore,

Resolved, That, in recognition of the valuable services rendered by Major-General John B. Woodward to the National Rifle Association in carrying out its objects and in promoting its interests, the Directors, both officially and individually, take great pleasure in conveying to him their sincere and grateful thanks.  
New York, October, 1877.

The committee, having performed the duties assigned it, respectfully ask to be discharged.  
ALEXANDER SEALER,  
HENRY FULTON,  
H. A. GILDEBRIDGE.

The Secretary begs respectfully to submit the following recommendations:

First—In view of the fact that the "Regulations" as issued during the last summer were necessarily somewhat hastily prepared, and that there are several typographical errors; and

the further fact, that these regulations are largely taken up with matter which refers only to our annual meetings; and the still further fact, that these regulations are the rule and standard by which rifle practice is governed to so large and increasing a degree throughout the entire Union—it is recommended that a committee be appointed at an early day to prepare a revised edition, which shall separate what refers exclusively to the meetings from general rules applicable to all matches, and submit the same to the Board of Directors for their approval, that upon adoption they may be put in print early in the year and be distributed before the opening of the next season.

Second—The records of the Association and many of the books in the office are of great value to it, and their loss would be irreparable, and the purchase of a suitable safe is therefore recommended; and if the books of the Treasurer were also kept there, as they should be, that the office of the Association may be really its headquarters and the different officers required to fix stated hours, two or three in each week, when they might be found at the office, it would be vastly to the benefit of the Association. And here it may be well to suggest that no purchases of any description should be made by any party without filing at the time a duplicate order in a book to be kept for the purpose at the office. Purchases of supplies, etc., are now made and the bills are ordered sent to the office, entered in a book, and when the monthly meeting of the Board approaches they are certified to by the Range Committee, and it then becomes the duty of the Secretary to present them to the Board, who audit and pass to Treasurer for payment. Of course at the office there is no means of knowing whether two similar bills are duplicates or not from the mere fact that they bear even date, and in some cases mere statements of bills previously rendered have been thus audited and in one case a tripartite bill was only accidentally discovered from some peculiarity by the Asst. Secy.

Third—The Secretary asks respectfully to join the Executive Officer of the late Fall Meeting in some of the recommendations made by him in his report submitted at a recent meeting of the Board of Directors, and which is to be printed in the Annual Report of the Association; especially that of fixing the number of shots in all military matches hereafter to seven, and omitting entirely sighting shots in all matches at our annual meetings; the permitting in many matches of the same person entering as many times as he may desire; the assignment to targets and fixing of day and hour at the time of entry, upon the Wimbledon plan; and the closing of the books for regular entries at least one week before the opening day of the meeting; and the making of all entries after that time *post entries*, would enable the Association to provide many additional matches by accommodating a much larger number of entries in one day.

Fourth—It is earnestly recommended that a proper certificate of life membership should be adopted, as it does not appear creditable to the dignity of the Association that the present system of issuing temporary certificates should be continued. It is not necessary that either an elaborate or costly design should be selected. It may be stated, in fact, from inquiries made, that \$50 would provide a suitably engraved plate and the first hundred certificates.

At a meeting of the Board of Directors, held June 26, the President was directed to take the necessary legal steps to have the name of the association changed to the "National Rifle Association of America," and at the meeting of the board on Oct. 2 the President announced the receipt of the order of the Supreme Court to that effect. At the same meeting (Oct. 2) resolutions were adopted creating the office of "Official Surgeon to the Association," and appointing Surgeon Moreau Morris to the position.

The several reports of Treasurer, Range and Finance Committees, chief-executive officer and statistical officer of the fifth annual prize meeting, and presented at this time, are very complete, and will repay careful examination, as furnishing in detail much valuable information concerning the affairs of the association for the past year.

The *Volunteer Service Gazette*, of London, has been added to the list of papers regularly received and filed at the office of the Association during the year 1877, and the Secretary takes this opportunity of expressing the obligations of the Association to the editors of the following papers, all of which have been regularly and promptly received, viz.: *FOREST AND STREAM AND ROD AND GUN, Army and Navy Journal, Spirit of the Times, Turf, Field and Farm, Chicago Field*, and the *Volunteer Service Gazette*, of London.

Very respectfully submitted,  
GEO. S. SOBERMEYERHORN, J.L., Secretary.

THE NATIONAL RIFLE ASSOCIATION.—A meeting of the Board of Directors of the National Rifle Association was held Jan. 2. Judge Stanton, the President, in the chair. The report of the Treasurer showed the receipts of the past month to have been \$428.32; disbursements, \$412.49; balance on hand, \$26.33. Col. Wingate reported that the Superintendent of the range at Creedmoor had repaired the woodwork in the markers' butts, in such a manner as to preclude the necessity of further repairs during the coming year. The Range Committee, he said, was also in favor of retaining the present Superintendent, W. H. Brower, as being perfectly fitted for the position. The Committee on By-Laws reported certain amendments to the code of by-laws governing the association. The following officers were constituted Honorary Directors, ex-officio, in addition to those provided for in the old by-laws: The General commanding the Army, the United States Department Commanders, the Superintendent at West Point, Chief of Ordnance of the United States, Adjutant-General of the several States and Territories, and the Presidents of the State Rifle Associations who have affiliated. These Honorary Directors will be allowed a voice in all matters relating to the association, but will only be entitled to vote upon the general rules of the association in relation to rifle practice, and all international or inter-State rifle matches. Other important changes were as follows: After a member has paid annual dues (\$3) for ten years he shall be constituted a life member, and any member of an affiliating club who lives more than 100 miles from Creedmoor shall be entitled to all the privileges of annual members on the range. The amendments were adopted as a whole, and will now come before the entire National Rifle Association at its next annual meeting for their adoption as a whole. A communication was received from Mr. Thomas E. Lamb, Jr., of the late American team, announcing that he had not received the sum of \$300, due to him according to a resolution passed by the association returning that amount to each member of the team for his expenses. On motion the Treasurer was directed to pay Mr. Lamb the amount asked for.

THE NATIONAL RIFLE ASSOCIATION.—The annual meeting of the National Rifle Association was held at the armory of the Seventh Regiment, Jan. 8th, Judge N. P. Stanton, the President, in the chair. The report of the Secretary showed 54 life members had been elected during the past year. The receipts for the year have been \$18,863.35; expenditures, \$13,337.03; balance on hand, \$5,526.32. Six Directors were elected to fill vacancies, as follows: Lieut.-Col. E. H. Sanford, Hon. D. W. Judd, Col. John Ward, Col. John Bodine, Major Henry Fulton, and John P. Waters. The proposed amendments to the by-laws were next taken up and were passed, with the exception of two clauses, one of which would have permitted Presidents of affiliating associations to become life members ex-officio. The other provided that members who had paid annual dues for the period of ten years should be elected life members without further assessment. The following officers were elected: President, Judge N. P. Stanton; Vice-President, Col. G. W. Wingate; Secretary, George S. Schermerhorn, Jr.; Treasurer, Gen. D. D. Wylie; Executive Committee, Gen. Alexander Shaler, Hon. D. W. Judd, and Judge Henry A. Gildersleeve.

CONNECTICUT—Wallingford.—Co. K, Second Regiment Connecticut National Guard, had a sociable at their armory, in Wallingford, on New Year's Eve, which was a very pleasant affair. The riflemen of this company have gained quite a reputation as marksmen, having furnished nine men for the Regimental Team in the contest for the Army and Navy Journal cup, which they won at Creedmoor in 1875; also, eight men for the Inter-State match, which they won in 1876, and four men for the Army and Navy cup in 1877, which they came very near winning for the second time; also, in the spring of 1877 at the company's annual target shoot, twenty-nine men out of thirty-eight qualified at 500 yards, according to the State standard. The company musters fifty-two men, and have a fine armory 59x80 feet, with four rooms adjoining.

NEW HAVEN RIFLE ASSOCIATION.—This association, located at New Haven, Conn., held a meeting at their range, near Quinnipiac, on New Year's Day. The weather was cold and windy. Good scores were made. In the all-comers match, at 200 yards, the following are among the best scores: J. E. Stetson, 5 5 4 4 5 5—31 E. A. Folsom, 4 3 5 4 4 4 4 4—29 A. Kinckholdt, 4 5 5 4 5 4 4—31 F. W. Tracing, 3 5 4 4 4 4—28 At 500 yards the following scores were made: J. E. Stetson, 4 3 5 5 5 5—32 R. M. Walker, 5 5 5 4 4 4 4—31 E. A. Folsom, 4 5 5 5 5 5—32 W. H. Layne, 4 5 5 4 5 5—31

Following are among the best shots made in the 200-yard military match: E. A. Folsom, 4 5 4 4 4 5 4—30 P. O'Connor, 5 4 4 4 4 4—29 J. J. Sweeney, 4 4 4 4 4 5—29 L. O'Brien, 5 4 4 4 3 4—29

In the 500-yard military match the following scores were made: R. M. Walker, 5 5 5 2 4 4—29 F. Doerschuck, 4 4 4 3 0 4—23 J. E. Stetson, 3 5 4 4 3 4—23 L. O'Brien, 4 2 3 3 3 3—22 In the pool shooting, bulls'-eyes at 200 yards were worth 75c., and at 500 yards 15c.

Hon. O. F. Winchester, of the Winchester Armory, has recently presented the New Haven Rifle Association with a check for \$150, being one-fifth of what the association has expended in fitting up Quinnipiac range. The cold snap has put a temporary stop to out-door practice, and in-door shooting is consequently increasing, Lovejoy's gallery being the favorite resort.

NEW YORK RIFLE CLUB.—Last Thursday evening, at the regular meeting of the New York Rifle Club the following were the scores for the Blydenburgh badge:

	200 yds.	300 yds.	T <sup>m</sup>
J. B. Blydenburgh	37	48	95
G. F. Blydenburgh	45	46	94
N. O'Donnell	44	46	94
F. Alder	45	45	90
G. A. Cheever	48	42	90
S. T. G. Dudley	45	45	89
J. S. Conlin	45	43	88
N. B. Thurston	45	43	88
A. J. Howlett	43	44	87
H. D. Blydenburgh	43	44	87
Pierre Lorillard, Jr.	45	40	85
S. W. Wiley	41	43	84
J. H. Meeker	39	41	75
J. W. Duckworth	40	39	71
J. Ward	38	30	66

The shooting was hardly up to the standard on account of some trouble with the gas. Yours very truly, S. T. G. DUDLEY, Pres.

CROSSLY'S GALLERY—Buffalo, Jan. 7.—The following score was made by Capt. H. Baker, at 60 yards, Creedmoor target:

5 4 5 4 5 4 5 5 4
5 5 5—104 in a possible 120.

LONG RANGE RIFLE CLUB OF WHEELING, VA.—A club has been formed in Wheeling, Va., its origin dating from September last. Some very excellent shooting has already been made at 800 yards by the President, C. E. Dwight, Esq., and we can cite 148 made in 80 shots at 800 yards as a fair sample.

OHIO—Cincinnati, Jan. 1.—The following score was made by the rifle team of the Cincinnati Shooting and Fishing Club on New Year's Day, at the club range, off-hand, at 200 yards:

Hall	4 5 5 4 4 4 5 4 4 5 4 4 4 4 4 4 3—62
Caldwell	4 4 5 5 4 4 4 4 4 4 4 4 3 5 5—63
Baum	4 4 4 4 5 5 4 4 4 4 4 4 4 4 4—62
Seaman	4 4 5 4 5 4 5 4 4 4 5 4 4 5 4 5—61
Campbell	4 4 4 4 5 4 4 4 4 4 4 4 4 4 4 4—61
Disney	4 4 5 4 4 4 4 5 4 4 4 4 4 4 4 4—63
Total	378

The scores are remarkable, and worthy of commenting on. CALIFORNIA RIFLE MATCH.—The match between J. W. Maher and P. H. McElhinny came off on the 23d instant at San Bruno. The conditions were: Fifty shots each at the 200-yrd target, the actual distance from the centre to each shot to be measured in inches. Maher, who was one of the Creedmoor team, won the match easily, with 123½ inches to spare. The score, in points, is as follows:

J. W. Maher	4 3 8 4 4 4 5 4 4—39	4 4 4 4 3 5 4 4 4—40	5 3 4 4
P. H. McElhinny	4 3 5 5 3 4 4 5 4—43	4 4 4 4 5 4 4 4 4—41	784
Total	194 points, or 49¾ inches.		

The same match will be shot over again. Mr. McElhinny is also engaged to shoot with Mr. McCarty, of the Montgomery Guards, fifty shots, string measurement, McElhinny giving McCarty 50 inches.

SACRAMENTO PISTOL TEAM.—We give the shooting of the pistol team on a late occasion. Distance fifty-two feet, bull's-eye target 1/16ths of an inch in diameter, counting 12:

Gerber	12	10	10	9	8	11	11	9	9	7—96
Beck	11	10	10	7	8	13	10	10	8	7—93
Byers	12	11	11	10	11	10	9	8	8	7—95
Brewer	11	10	10	9	7	11	10	8	8	8—92
Griffiths	11	11	12	10	8	11	10	9	8	5—95
Goldthwait	9	5	6	11	4	7	6	7	8	6—87
Kane	11	11	10	8	11	11	6	8	8	9—94
Jackson	5	8	8	11	12	4	8	3	3	8—24

J. T. GRIFFITHS, Secretary.

THE STRANGE BULLET.—In our last issue we asked information in regard to a curiously-shaped bullet found in a deer in Canada. Having given an illustration of this nondescript projectile, we have been favored with the following reply:

PHILADELPHIA, January 5, 1878.  
EDITOR FOREST AND STREAM:  
Your curious rifle bullet, I think, the ball of the carbine used by the "Bersaglieri" troop of Sardinia, some time between 1850 and 1855. Respectfully,  
E. H. HOLGASAN.

NOT TO THE PURPOSE.—A correspondent, "J. G. B.," in a letter to the *Volunteer Service Gazette*, deprecating the American rifle as a military arm, and commenting on Mr. G. S. Schermerhorn's communication, finds it "singular" that Mr. Schermerhorn "does not refute this grave charge against the American breech-loader." It may be stated, in reply to "J. G. B.," that Mr. Schermerhorn, writing in an unofficial capacity, did not think it just that he should descend in any way on the character of the arms used in the Centennial match. It was something entirely out of his province. Mr. Schermerhorn's letter to the *Volunteer Service Gazette* was simply to correct some misinformation Sir Henry Halford has received, and in the last issue of our English contemporary, Sir Henry Halford, in the most graceful and courteous way, acknowledged his mistake in regard to the practice of the Americans as a team. All this discussion, most excellent and interesting as it is, is narrowing itself down to exactly the right point. It is beginning to gleam on our friends on the other side that it is not team practice alone which has won us our matches, but that our uniform success was due to the excellence of our rifles. A great pothar has been made about the wiping and cleaning of our breech-loaders. These are minor harpings. We have had very few victories over Englishmen on which we could pride ourselves. We refer to the yacht America as one of them, and only for this reason, that it ought to have taught Englishmen a lesson. When the America won, for six months at least, no end of fault was found with her by English yachtsmen. She was crank, uncomfortable, always wet, hard to steer, couldn't stand heavy weather, she was new fangled, etc. After a while it was found out that the English system of yacht building was wrong, and the American plan was adopted. It will be found out in time that the lesson American arms have taught our gallant English friends will be more fully understood. *Arma (non) virumque cano.* Anything else but this question is not to the purpose.

THE ELCHO SHIELD, FESTIVITIES.—On the 10th of Dec. there was grand gala and junketing in the Council Chamber at Dublin, on the occasion of the reception of the Elcho Shield. The Lord Mayor and all the civic dignitaries were present. Major Leech, who acted as spokesman for the Irish team, made a speech in his usual happy manner, which was responded to by the Mayor. In a capital speech of Alderman Manning's, the good services rendered by Major Leech to both sides were referred to:

Major Leech did a great deal, and the Irish eight who accompanied him also did a great deal, although they did not win. But they were very near it, and it was just as great a happiness for them not to win when they were so very nearly winning it. I believe that a great deal of credit is due, not only to Major Leech, but to the gentlemen who went out at their own expense to America as well as to Wimbledon, to sustain the honor of the country. (Cheers.)

A complimentary resolution, addressed to the gallant Major, was then passed by acclamation. In the evening a banquet was held, Lord Talbot de Malahide occupying the chair. The menu was printed on a shield-shaped card, recalling the grand trophy the Irish team had won. Conspicuously in the bill of fare was a pudding a l'Elcho. The usual toasts were proposed, and among them the healths of the President of the Irish Rifle Association, the Duke of Abercorn and of Major Leech. One final paragraph tells the whole story. "After a delightful evening in which good feeling and enthusiasm were predominant, the party separated at an early hour in the morning." For a superb dinner, and the best company in the world, commend us to just such a banquet as this, which Irish gentlemen know how to indulge in. As for ourselves, with our hearty congratulations to the Irish Rifle Association, this being the third time in five years that they have carried the Elcho Shield to Dublin, we trust to be able to herald many future triumphs on their part.

TALL SHOOTING.—We have on exhibition in our office a target made at Zettler's gallery by Messrs. B. Zettler and M. B. Engel, five shots each, ten in all, off-hand, 100 feet, when the whole measure is 2 11-16 inches. All the shots are massed in a space of 1½ inches by 11-16.

NOTICE TO SPORTSMEN.—Having received so many communications on asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$160. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting. P. O. Box 1,294.—[Adv.] ABBEY & LEBRIE, 38 Maiden Lane.

National Pastimes.

NEW YORK ATHLETIC CLUB.—The meeting of this club at Gilmore's Garden, Jan. 4th and 5th, was one of the most successful affairs of the kind ever witnessed in this city. There was plenty of sparring, in which Blundell and Lynch led off with some rough work; Roehner defeated Williams; Iless, of New York, vanquished Lathrop, of Boston; Henry Buermeyer, of New York, decidedly got the best of George Lee, of Boston. The tugs of war followed, the Harlem Athletics beating the Hudson County Caledonians, the Dauntless beating the Turn Verein Vorwarts, and the Scottish-American Athletic men proved too much for the team of Police-

men. The mile race, which came next, after several trial heats was finally won by Morgan, H. A. C., in 4m. 49½; Wilkinson, of the American Athletics second. The mile handicap walk, in which thirty men started ahead of Armstrong, of the Harlem Club, resulted in a dead heat between him and Mott in 7m. 5½.

THE POLICEMEN'S ATHLETES.—Never was Gilmore's Garden more densely crowded than on the occasion of the Police Athletic exhibition for the benefit of the Widows' and Orphans' fund last Monday evening. The crowd was further noticeable for its good humor, its demonstrations of sympathy with the contestants, and the unstinted applause which it showered upon its favorites. The exhibition was highly creditable to the force, and evidence was shown of a marked improvement in the condition of the force since the establishment of the Police Athletic Club. The contests were as follows:

- Sparring, heavy weights—J. Pilkington and J. Brittonover. Pilkington won first heat.
- Sparring, light weights—Bady and Matterson. Won by latter.
- Wrestling, collar and elbow—J. Quigley and W. Haverside. Quigley won in 15m.
- One-mile walk, for members weighing 200 pounds and over—Wm. Muldoon, J. W. Phillips and M. McCarty. Muldoon won in 9m 3/8.
- Tug of War, between teams of ten from the Police Athletic Club and the Scottish Athletic Club—Police team: J. T. Gay, Captain; O. Wable, Orlando Wildey, Charles Smyth, Stephen McDermod, Martin Furey, O. Pratt, P. D. Ledy, Alexander Frazier and Charles Brady. Scotch team: Mr. M. E. More, Captain; E. Arnold, E. McNicol, C. Fabrigon, C. Conner, W. McEwen, P. Clare, A. W. Adams, A. Thompson and H. B. Wilson, Jr. The police force would turn the scale at 2,200 pounds, the Scotch at 1,500. Won by the Police in 3m 28s.
- Velocipede race for \$300 and championship of America—Wm. De Nolele and Wm. Miller's "Unknown." The race was very close and exciting, the two never being more than a few feet apart. The "Unknown" fouled his competitor, to whom was awarded the prize.
- Græco-Roman wrestling—William Muldoon and Emille. Won by former. J. F. Adams and Bolangee, won by former.
- Collar and elbow wrestling—Chas. Murphy threw James Quigley.
- Sparring match—James Pilkington defeated M. Welsh. Frank Donnelly defeated J. H. Cartui.
- Mile walk—Six entries. Won by J. T. Pilkington in 8m 25s.
- Tug of War, second trial—After pulling 17m. the gas was suddenly turned down and the tournament brought to a close.

YONKERS ATHLETIC CLUB.—The Yonkers Athletic Club held its second annual meeting last Monday evening, when the following officers were elected: John A. Byrne, Pres.; Geo. H. Palmateer, Vice-Pres.; Wm. Cogan, Sec.; Joseph Walsh, Treas.; Chas. M. Shaw, Captain; Chas. Knoulin, Geo. Nodin and James Leary, Executive Committee.

THE "SPARTANS."—We have received from Mr. Frank S. Clifford, the gymnastic director, a copy of the constitution of the Spartans, an incorporated athletic club of Boston. The object of the association is to promote intellectual and physical culture among both males and females, and especially by providing suitable grounds where there can be a reading room, library and place for athletic and training exercises. By its charter the club has power to extend and establish branches in other cities, towns and villages, and doubtless the order will be increased as it well deserves.

ANOTHER PAIR OF LEGS IN MOTION.—No sooner does one run time than another is wound up and started off. This time it is Weston, who, on Wednesday, Dec. 26, at Newcastle-on-Tyne, Eng., began the task of walking 1,000 miles in 400 consecutive hours. If we had a department of "Ir-rational Pastimes" this item should go there.

CURLING.—The great curling contest between curlers of the North and South of Scotland, for the Dalrymple medal, comes off to-day at Central Park. The sport begins at 10:30 A. M., and closes at 5 P. M. Twenty clubs are expected to participate, representing New York, Brooklyn, Paterson, Yonkers, Albany, Buffalo, and Philadelphia.

—Wilbur & Hastings, of 40 Fulton Street, leading stationers and printers, have issued an admirable calendar and diary, which we find most convenient in our daily use.

THE SHONINGER ORGAN COMPANY.—America fairly leads the world in the perfection of that feature of modern civilization and musical culture, the reed organ. And in the multiplicity of excellent instruments to select from, many persons are at a loss to know what organ they shall purchase for their homes. The admirable system of awards adopted at the Centennial Exhibition, however, where all the rival companies displayed their best work, helps to solve the difficulty for many intending purchasers. The Shoninger Company received the verdict of the judges: "The best instrument for the money," a decision which is amply endorsed by the fact of the steadily increasing public appreciation of the merits of these instruments.

SPLIT BAMBOO RODS.  
To our customers and the public.—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.  
CONROY, BISSETT & MALLESON,  
Manufacturers, 65 Fulton Street, N. Y.

# Yachting and Boating.

HIGH WATER FOR THE WEEK.

Date.	Boston.		New York.		Charleston.	
	H.	M.	H.	M.	H.	M.
Jan. 11.....	3	18	1	20	0	18
Jan. 12.....	4	48	1	59	1	04
Jan. 13.....	5	41	2	48	1	58
Jan. 14.....	9	42	3	36	2	59
Jan. 15.....	7	48	4	37	4	03
Jan. 16.....	8	52	5	33	5	09
Jan. 17.....	9	51	6	31	6	08

## BOAT AND YACHT BUILDING.

BY NAUTICUS.

A SPORTSMAN'S CANOE.

The drawings represented by diagrams No. 34, 35 and 36 are for a boat of all work, either ducking, fishing, or travel. The dimensions of the canoe are thirteen feet long, thirty inches wide and nine inches deep at midships. With the sheer represented on the drawings, the stem and stern would be one foot deep. If thought

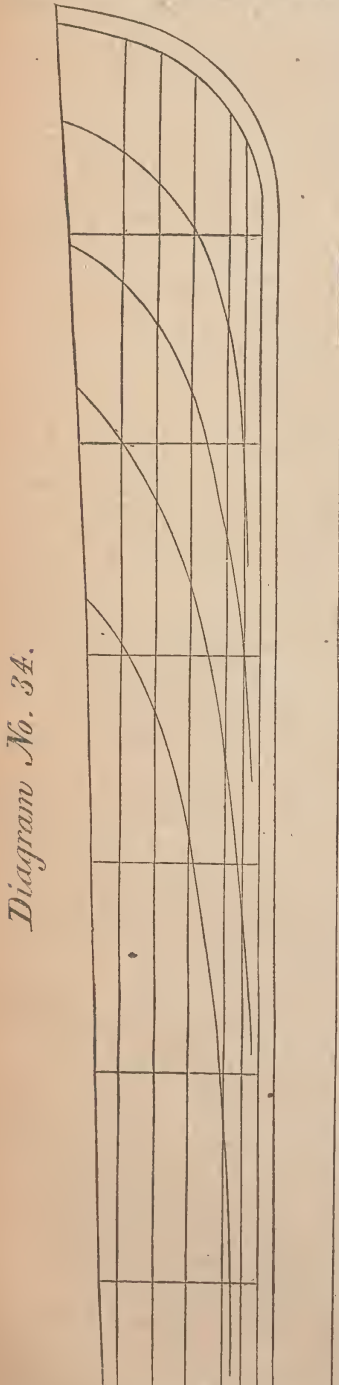


Diagram No. 34.

quarter or three-eighths of an inch thick. If quarter-inch planking is used, the ribs should not be more than four inches apart. Ribs—for three-eighths planking—may be placed from six to eight inches apart. The ribs may be from three-eighths to one-half inch thick; keel, seven-eighths to one inch thick; stem and stern, deadwood, of a corresponding size. The rails are three-fourths of an inch thick and one and one-half inch deep. Diagram No. 37 represents the manner in which the deck beams are joined to the rails. The deck beams are one-half inch thick and have a rise of three inches. If more sheer is given to the boat than is represented in the diagram, the rise of deck is increased in like amount. Curved deck beams may be used if preferred. Two boards—one-half inch thick—are nailed to the ridge or deck beams, and canvas stretched over all and fastened with tacks. The length of cockpit may be about five feet; wash-boards on side of cockpit, four inches wide, supported by knees; combing projects one and one-half inch above deck. The deck may be constructed as described in the article on the Skip-Jack Canoe. Outriggers for rowing are fitted in such a manner as to be readily removed. Paddles for ducking, about three feet long; for cruising, seven and one-half or eight feet long. With the aid of a few supplementary suggestions, the reader will be in possession of all that

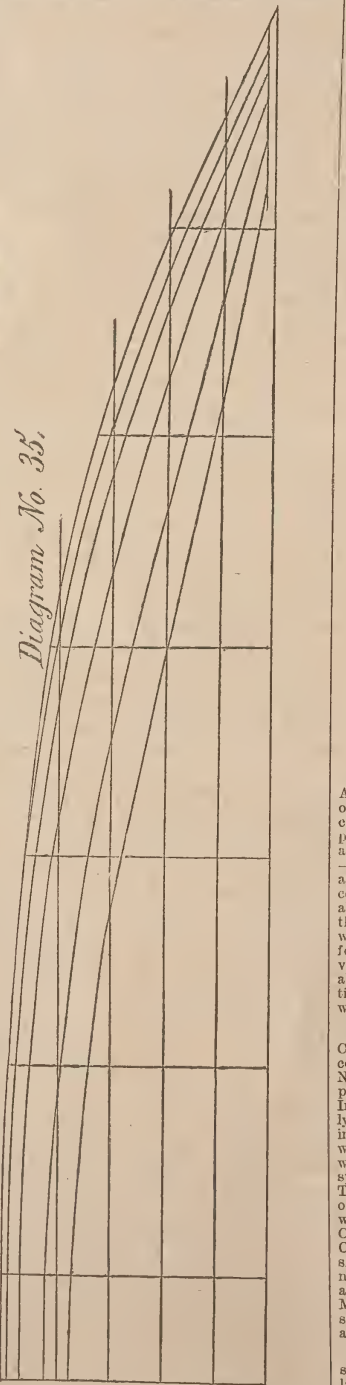


Diagram No. 35.

large loads, or is to be used in very shallow waters, the midship section should be similar to that of the sportsman's canoe; if only designed for light rowing, a midship section of less area is desirable. The proportions of ribs, planking, etc., depend as much on the service required as on the size of the boat. A ship-boat, twenty-four feet long and six feet beam, has ribs about one and one-half inch thick; frame in propor-

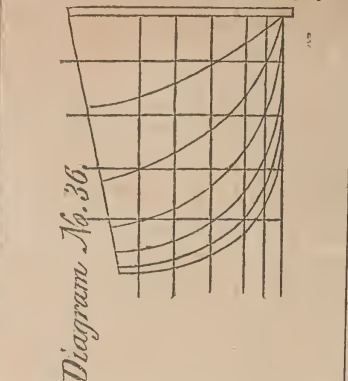
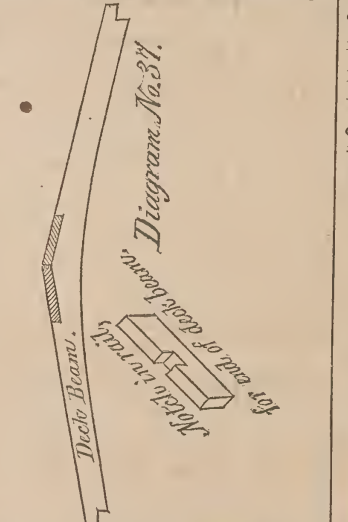


Diagram No. 36.

tion; planking, seven-eighths or one inch thick; ribs placed ten or twelve inches apart. A North River shad fisher's boat is from eighteen to twenty feet long, five and one-half to six feet beam, and three to three and one-half feet wide at the stern; depth at midships, eighteen inches; at bow, twenty-seven inches; at stern, thirty inches; planking, five-eighths or three-fourths of an inch thick. As these boats carry heavy loads on the stern, the water lines are made very full aft. There are many other methods of construction besides the one already described. In diagonal planking, one end of the planking is fastened to the keel, the other bent up in a diagonal direction to the rail, and there fastened. The planks are fitted close to one another and bent over frames made to give the desired shape.



After one course of planking is completed, another course is laid over it, crossing the first course at right angles. The two courses of planking are firmly riveted together and no ribs are used. Double planked boats—without ribs—are also made by running the planking fore and aft as usual, lapping the planks of the second course on those of the first, and riveting all together. Boats are made of paper, and there are many different ways of combining wood and canvas; but the "original Jacobs" fore and aft planking on good oak frames—is the very best method yet devised to make a serviceable and lasting boat. There are many objections to the use of metal for small boats, and it will never be popular except for large craft.

COMMODORE VOORHIS, OF THE BROOKLYN YACHT CLUB.—We regret to announce the death of Jacob Voorhis, Jr., Esq. Mr. Voorhis joined the New York Yacht Club in 1868, and later became a prominent member of the Brooklyn Yacht Club. In 1872 he was elected Commodore of the Brooklyn Club, which office he held until 1876. During his management all the details of the club were wisely and carefully carried out. Lately, with declining health, Mr. Voorhis had been spending a portion of the year in the South. The late Commodore was well known as the owner of the schooner *Madeleine*, which vessel was selected as the champion of the N. Y. Yacht Club in the last contest for the America cup. Originally the *Madeleine* was built as a sloop; she was rebuilt by Mr. Voorhis, until as a schooner she became so conspicuous for her victories as to win the proud title of *Queen of the Fleet*. Mr. Voorhis, from his genial character and high sense of honor, was respected and esteemed by all who knew him.

THE FLORIDA YACHT CLUB.—The yachting season for the winter was most auspiciously opened last week by a ball given by the members of the club to their friends in the newly completed Yacht Club House, which is a handsome structure of Swiss architecture. The Florida Club, whose organization and work have been recorded in former numbers of *FOREST AND STREAM*, is composed of the citizens of Jacksonville and gentlemen visitors who make that city their winter headquarters. Besides affording pleasure to residents and members, the doors of its new club house are always open for the entertainment of strangers properly recommended, who

may enjoy all its privileges upon the payment of a small fee for the season. The officers for the ensuing year are: Com., William Astor; Vice-Com., Chas. J. Kenworthy; Captain, Mellen W. Drow.

MESSRS. TIFFANY & CO., UNION SQUARE, NEW YORK City, have made extensive preparations for the approaching HOLIDAYS.

Their Stock of Diamonds, Watches, Jewelry, Silverware, Bronzes, Pottery, Stationery and Fancy Articles, is the largest and most varied in this country, and includes novelties from abroad and choice goods of their own manufacture, not to be found elsewhere.

A special department has been organized for sending goods to persons at a distance from New York, and any one known to the house, or naming satisfactory references, can have careful selections sent for inspection.

They have lately published a little pamphlet containing a condensed account of each department, and lists of articles appropriate for presents, which they will send to any address on request.

## Piper Heidsieck

AND PIPER "SEC."



For Sale Everywhere.

JOHN OSBORN, SON & CO., 45 Beaver street, New York, and 44 St. Sacramento street, Montreal, GENERAL AGENTS.

ESTABLISHED 1830.

## C. G. Gunther's Sons,

(LATE 502-504 BROADWAY,) 184 Fifth Avenue, (Broadway and 23d St.,) NEW YORK.

SEAL-SKIN SACQUES AND WRAPS, FUR-LINED CIRCULARS AND CLOAKS, FUR ROBES, MATS, COLLARS & CLOVES.

ALL IN LARGE ASSORTMENTS AND AT LOW PRICES.

N. B.—Orders by mail or information desired will receive special and prompt attention. Dec 18 97

advisable, two or three inches more sheer may be given. The design may be lengthened by placing the cross sections further apart, making the canoe fourteen or fifteen feet long. The drawings give one-half the length of the boat, both ends being precisely alike. The general construction of the boat is the same as the row-boat, already described. Planking, cedar, one-

is necessary to enable him to design row-boats for any required service. The proportion of depth of hold at midships to length, for ordinary row-boats, is one-twelfth or one inch in depth to each foot in length. The proportion of width to length varies from one-fourth to one-sixth. Boats to be used in rough water require more sheer than others, unless they are decked at the bow, when it is a matter of indifference. The shape of the midship section is a matter of importance. If the boat is designed to carry



# NICHOLS & LEFEVER,

SYRACUSE, N. Y.,

MANUFACTURERS OF

**DOUBLE AND SINGLE-BARREL BREECH-LOADING SHOT-GUNS**  
 Double-Barrel Breech-Loading Rifles, and Shot and Rifle combined. Muzzle-Loading Creedmoor  
 Guaranteed to be the best, and not to give "UNACCOUNTABLE MISSES."

Our Catalogue for 1878 will be ready January 15, giving full description of gun, recent improvements in same, matters of general interest to Sportsmen, etc., etc.

## NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.  
**MADE OF BROWN VELVETEEN.**

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$6.50. Also the best brown corduroy pants at \$10 per pair. Make only the one grade, as the cheapest goods do not form briars and will not give satisfaction.

Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is The Best Yet. Coat, \$6.00. For full Suit, \$14.00. I also make the Sleeveless Coat; Vest with sleeves if desired. Rules for measurement and samples sent upon application.

**F. L. SHELDON, Rahway, N. J.**

For Sale by Dealers in GUNS and SPORTSMEN'S SUPPLIES.

## ACME CLUB SKATE.



The only reliable Self-Fastening Skate ever invented. Can be instantly and firmly attached to any boot. Requires no heel-plates, straps, nor kev. Price per pair \$5. Nickel Plated \$6. Sent by Mail, post-paid, on receipt of price, or by Express C. O. D. Send stamp for illustrated price-list of Skates, Revolvers, Novelties and other Sportsmen's Goods. Trade supplied by  
 Mention FOREST AND STREAM.

**FISH & SIMPSON, 132 Nassau street, N. Y.**

## THE UNITED STATES CARTRIDGE COMPANY,

LOWELL, MASS.

Manufacturers of the  
**CENTRAL FIRE, SOLID HEAD,**  
**BRASS SHELL, RE-LOADING CARTRIDGE,**  
 Used by the Army and Navy of the United States and several Foreign Governments.  
 All kinds of RIM FIRE AMMUNITION.  
 Special attention paid to orders for TARGET PRACTICE CARTRIDGES.  
 Send for Illustrated Catalogue.

**WALLACE & SONS, Agents, N. Y. City.**

## Sportsmen, Attention!



### Keep Your Feet Dry.

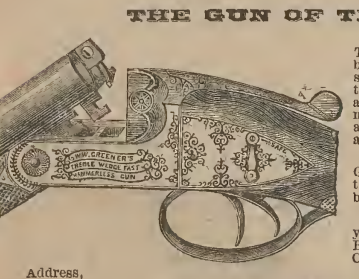
The only premium awarded by the Centennial Commission, Philadelphia, 1876, for Alligator Waterproof Boots and Shoes.

Goods sent to all parts of the U. S.,  
 C. O. D.

Catalogues containing full instructions for self-measurement sent free on application.

**503 Broadway, New York.**

## W. W. Greener's Patent Wedge Fast, Hammerless Breech-Loader.



**THE GUN OF THE FUTURE.**  
 It has already made its mark in Great Britain. The self-cocking is effected by the raising of the breech ends of the barrels for loading, and works smoothly and without requiring much force to open the gun and cock the locks. There is a safety bolt at the side which answers for half cock. The mechanism of this action is exceedingly strong and simple, and is better suited for hard work than any other gun in use.

W. W. GREENER winner of the great London Gun Trials of 1875 and 1877, beating 121 guns by all the best makers of London, Birmingham, Edinburgh and Dublin.

These guns are warranted to kill game at 100 yards. Read W. W. GREENER'S book on Smoke-Bore Guns and How to Load, published by Messrs. Cassell, Petter & Galpin, New York.

Address, **ST. MARY'S WORKS, Birmingham and 68 Haymarket, London.**

**FOR SALE.** when eight weeks old, six puppies out of my blue belton setter Mell, by Bob Boy. They are black and white. Two of them are black, white and tan, and are almost perfect images of their sire. For particulars, address L. F. WHITMAN, 5 City Hall, Detroit, Mich. Jcs 11

**FOR SALE.** A brace of fine red Irish setter pups, bred from "Champion" red-Irish, imported stock. For particulars address HORACE SMITH, No. 33 Park Row. J10 1

**DOGS.**  
 DR. HENRY GARDNER, 1,762 Broadway, between 56th and 57th st., New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ag 211

**FOR SALE.** A thoroughbred fallow red dachshund bitch, two years old. Inquire of WM. H. GOETTING, 406 Third avenue, N. Y. Jan10 11

### The Kennel.

## ST. LOUIS BENCH SHOW

February 19th, 20th, 21st and 22d, 1878.

**\$3,000 CASH PRIZES,**  
**\$2,500 SPECIAL PRIZES.**

REDUCED RATES AND PASSES FOR DOGS ON RAILROADS—HALF RATES BY ALL THE EXPRESS COMPANIES.

The richest prize list ever offered at a dog show in America. Premium lists ready for mailing on application to the Secretary.

Entries Close Feb. 5, 1878, Positively.

All entry fees must accompany entries. Certificates furnished exhibitors by the Association entitling the holders to reduced railroad rates and privileges.

CHAS. LINCOLN, Superintendent.  
 JOHN W. MUNSON, Sec., St. Louis, Mo.

### EDINA KENNEL.

JESSE SHERWOOD, Proprietor, Edina, Knox County, Mo., breeder and importer of Sporting Dogs, Pointers, setters, spaniels, fox and beagle hounds, "Sancho," Imp. Pointer, stud dog; fee, \$55. See English K. C. S. B., No. 1,905. He is a grandson of the celebrated "Hamlet," No. 836. This dog "Sancho" has won seven prizes—four in England (first at Crystal Palace, 1874), three here.

### BALLARD'S FLEA KILLER!

FOR THE DESTRUCTION OF FLEAS  
 On Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.

NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.

Price 50 Cents per Package.

Will be sent postage paid on receipt of price-Proprietors,  
**LAZELL, MARSH & GARDINER,**  
 J19 11 10 GOLD STREET, NEW YORK.

### SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped.  
**F. O. de LUZE,**  
 23 South William Street, N. Y., Sole Agent.  
 For sale in cases of 112 lbs. Special terms to dealers.

### Fleas! Fleas! Worms! Worms!

**STEADMAN'S FLEA POWDER FOR DOGS.**  
 A Bane to Fleas—A Boon to Dogs.  
 This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.  
 Price 50 cents by mail, Postpaid

### ARECA NUT FOR WORMS IN DOGS

A CERTAIN REMEDY.  
 Put up in boxes containing a dozen powders, with full directions for use.  
 Price 50 cents per Box by mail.  
 Both the above are recommended by ROD AND GUN and FOREST AND STREAM.

**W. HOLBERTON,**  
 102 NASSAU STREET.

### The Kennel.

**COCKER SPANIEL BREEDING KENNEL OF C. M. F. MCKOON, Franklin, Del. Co., N. Y.** I keep only cockers of the finest strains. I sell only young stock. I guarantee satisfaction and safe delivery to every customer. These beautiful and intelligent dogs cannot be beaten for ruffed grouse and woodcock shooting and retrieving. J10 11

**FINE DOGS FOR SALE.**—The owner of the two English setters, advertised in this paper of Dec. 6, having no further use for them, will take \$75 for one and \$50 for the other. They are honestly worth double. Apply to C. M. Dauphin, Dauphin County, Penn. Jan10 11

**A BARGAIN.**—For sale or exchange an Al large and very handsome Irish red setter dog puppy, fourteen months old; black eyes and nose; bred from prize winning parents; full pedigree; warranted free of faults; will sell or exchange for first class St. Bernard stock. Address J. R. SCHUYLER, Bloomsburg, Pa. Jan10 11

**FOR SALE.**—One of the handsomest and best broken imp. red Irish setter dogs in America is four years old, thoroughly broke on quail, ruffed grouse, and is one of the best snipe dogs that I ever hunted with. Pedigree and the above guarantee; price, if taken soon, will be cheap. One red Irish setter dog pup, six months old; is out of "Bees," by C. Z. Miller's imp. red Irish dog, "York," one of the handsomest red dogs in America. Price cheap. For full particulars inquire G. S. HACKER, Lancaster, Pa. J19 11

**IRISH SETTER PUPPIES.**—Two pure red Irish setter dog puppies for sale, now weaned, by Limerick (Punkie-Juno) out of Imported Flora (Pop-Lill II). Very handsome and healthy. Address Limerick, care of THE COUNTRY, P. O. Box 3,011, New York. Jan10 11

**FULL-BLOODED.**—Two Irish setter bitches, four months. Sire of pups, Don, imported from J. G. Cooper, of Limerick, Ireland, by C. H. Turner, Sec. Nat. Kennel Club, St. Louis, Mo.; dam, Constance, by Rodman's Dash. One Gordon bitch, eighteen months old; hunted this fall; staunch on quail and very fast, with good nose; will make a good one. One Gordon bitch eight months old. Full pedigree given with pups. H. B. VONDELSMITH, Lancaster, Pa. Nov22 11

**FOR SALE.**—A well broken pointer dog of good stock and pedigree. Also, some finely bred pointer pups, six months old. Address immediately, JOHN TOMKINS, Kennebunk, Me. J3 11

**FOR SALE.**—My red Irish bitch "Bees," by Salter's celebrated "Dash," out of Strachan's imp. "Belle." "Bees" whelped thirty-one puppies in three litters, and is a splendid field and woodcock, quail and snipe. Will sell "Bees" in whelp to imp. "York," if desired. Also, a pair of pups, four months old, by "York," out of "Bees." Address F. A. DEFFENDERPFE, Lancaster, Pa. J3 11

### For Sale.

**FOR FLORIDA.**—An excursion ticket, via Charleston steamers, good until June, will be sold at a discount. Address C. P. H., 35 West Ninth street, New York. Jan10 11

**FOR SALE, CHEAP.**—Two first-class breech-loading shot-guns, 10 and 12-gauge; been used but little, and all as good as new; so long as I have no time to use them. Address JOHN TOMKINS, Kennebunk, Me. J3 11

**SECOND-HAND.**—A very fine Tolley breech loader, with two sets of barrels cut to same stock; one pair 10-bore Damascus and very close shooting, other pair laminated steel and cylinder bore; weight, 9 lbs. and 8 1/2 lbs. This gun was made to order for the owner, and is very superior in every respect. Can be examined at gun store of HENRY C. SQUIRES, 1 Cortlandt street, N. Y. Nov1 11

**CITY AND COUNTRY PROPERTY** bought, sold and exchanged. C. S. PECK, 8 West 11th street, New York. Sept27 11

### Wanted.

**WANTED.**—An eight-gauge double breech-loader. Address, with description and price, S. E. D., Office of "Forest and Stream." J10 11

**HOW TO LIVE IN FLORIDA,**  
 HOW TO GO, COST OF TRIP, COST OF LIVING, what to cultivate, etc., etc. All told in each number of Florida New-Yorker, published at 21 Park Row, New York City. Single copy, 10c. one year \$1. 40 Acres Orange Land for \$25. On line of railroad, country healthy, quickly settled. Address J. R. OLIVER, Gen'l Agent, Box 604, New York.

**CAMP LOUNGE CO., TROY, N. Y.**  
 Value Lounges, \$5 to \$8. Trade discounts. Trade Circulars, and Col. Valise Cot, Price \$10. Spreads 6 ft. x 2 ft. Jointed Tent Poles: 6 ft. poles, \$3 per set; 9 ft. poles, \$4 per set. Branch line of Cortlandt St., N. Y. City; 13 Eminent Hall Square, Boston; 15 Calle Tejadillo, Havana 415 Sansome St., San Francisco Agents wanted. J12 11

Gunpowder.

Warren Powder Mills

MANUFACTURERS OF
BLASTING AND MINING, SHIPPING AND
SPORTING GUNPOWDER.

SPORTING BRANDS--Bureka, Continental
"Border Rifle," Snap Shot, and Warren's Sporting
Cannon and Musket, U.S. Standard. The above can
be had of the dealers, or at wholesale at the office,

THE
HAZARD POWDER CO.,
MANUFACTURERS OF
GUNPOWDER.

Hazard's "Electric Powder."
Nos. 1 (fine) to 6 (coarse). Unsurpassed in point of
strength and cleanliness. Packed in square canis-
ters of 1 lb. only.

Hazard's "American Sporting."
Nos. 1 (fine) to 6 (coarse). In 1 lb. canisters and
6 1/2 lb. kegs. A fine grain, quick and clean. For
upland prairie shooting. Well adapted to shot-
guns.

Hazard's "Duck Shooting."
Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters
and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very
clean, shooting remarkably close and with great
penetration. For field, forest or water shooting, it
ranks any other brand, and it is equally serviceable
for muzzle or breech-loaders.

Hazard's "Kentucky Rifle."
FFFG, FFG, and "Sea Shooting" FG, in kegs of 25,
12 1/2 and 6 1/2 lbs, and cans of 5 lbs. FFG is also
packed in 1 and 5 lb. canisters. Burns strong and
nicely. The FFG and FFG are favorite brands for
ordinary sporting, and the "Sea Shooting" FG is
the standard rifle powder of the country.

Superior Mining and Blasting Powder.
GOVERNMENT CANNON & MUSKET POWDER;
ALSO, SPECIAL GRADES FOR EXPORT OF
ANY REQUIRED GRAIN OR PROOF, MANU-
FACTURED TO ORDER.

The above can be had of dealers, or of the Compa-
ny's Agents in every prominent city, or wholesale
at our office.

88 WALL STREET, NEW YORK.

ORIENTAL
POWDER MILLS
MANUFACTURERS OF ALL KINDS OF
GUNPOWDER

Office--13 BROAD STREET, BOSTON.

BRANDS--DIAMOND GRAIN.
FALCON DUCKING.
WILD FOWL SHOOTING.
WESTERN SPORTING.
(Oriental Rice.)

The "Oriental" powder is equal to any made; no
expense is spared to make the best.

BRANCH OFFICES.

J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y.
Cobb & Wheeler, Agents, 932 St. Louis, Chicago, Ill.
C. J. Chapin, Agent, 215 Locust St., St. Louis, Mo.
Agencies in the principal cities in the United States.

A.S.L.

A SPLENDID OPPORTUNITY TO WIN A
FORTUNE. SECOND GRAND DISTRIBUTION,
1878, AT NEW ORLEANS, THURSDAY, FEB. 12.
Louisiana State Lottery Company.

This institution was regularly incorporated by the
Legislature of the state for Educational and Charita-
ble purposes in 1855, with a capital of \$1,000,000,
which it has since added a reserve fund of \$350,000.
ITS GRAND SINGLE NUMBER DISTRIBUTION
will take place monthly on the second Tuesday. It
never scales or postpones. Look at the following distribu-
tion:

Table with columns for prize amounts and quantities. Includes CAPITAL PRIZE (\$30,000), 100,000 TICKETS AT TWO DOLLARS EACH, and LIST OF PRIZES with amounts ranging from \$30,000 to \$100.

1867 Prizes amounting to \$110,400
Responsible corresponding agents wanted at all
prominent points, to whom a liberal compensation
will be paid.

Application for rates to clubs should only be
made to the Home Office in New Orleans.
Write for further information or send orders to
M. A. DAUPHIN,
P. O. Box 692, New Orleans, Louisiana,
or to
B. FRANK MOORE & SON,
317 Broadway, New York City.

All our Grand Extraordinary Drawings are under
the supervision and management of GENERALS
G. T. BEAUREGARD and JUBAL A. EARLY.
The next drawing occurs Tuesday, March 12,
Jan 1024--ew

Sportsmen's Goods.

BOSTON

SHOOTING SUIT.

Manufactured only by

G. W. SIMMONS & SON,

BOSTON, MASS.

THE BEST IN USE.

ONLY ONE QUALITY MADE AND THAT IS THE
VERY BEST.

Flexible, Waterproof, Tan-Color, Duck.

Each article--coat, trousers, vest and hat
--has the name and manufacturers' address
stamped upon it, and no suit is genuine with-
out it bears this imprint.

The suit can be sent, securely packed, by
mail to any part of the United States or Cana-
da on receipt of \$1.25 above the price of the
suit.

We make no discount except to the trade.
The price of the suit complete is \$18.

The suit consists of coat, trousers, vest and
choice of either cap with havelock, or hat.

The material is of the best quality of duck,
waterproof by a patent process. The color
is that known as "dead grass shade."

The seams and pocket corners are copper
riveted, and nothing is neglected to make
the whole suit complete in every way.

This is what one of our best sportsmen says
of it, writing from camp: "Miserable, drench-
ing rain, pouring down in a perfect deluge,
as if a second flood had come upon the earth,
two portages to cross, and a swamp between
them; that was the prospect before we reached
our camping ground. Such a swamp, too;
almost impassable, for where the ground was
firm was an almost impenetrable thicket of
thorns and what not, that looked as if it would
tear you to pieces. Well, we got to our
camp, and I must confess I was agreeably sur-
prised on my arrival. Although I had been
nearly eight hours under incessant rain, labor-
ing and striving along under the adverse cir-
cumstances above mentioned, yet I found
myself comparatively dry, and my clothes
without a tear. For the benefit of our brother-
sportsmen, let me advise one of Messrs. Sim-
mons' (of Boston, Mass.) Waterproof Suits.
Oh! what a relief it was to find one's tobacco
was dry, and that one could light a pipe; that
you could laugh at your miserable friend,
who stood shivering and shaking as if he
had the palsy; and then, next morning, oh!
what fun it was to see him mending his
clothes, while I had not a tear to complain of.
Ventilation, also, that great bugbear of water-
proof suits, is legislated for in the most inge-
nious manner. No sportsman should fail to
supply himself with a suit which is at once
cheap, practical, and will last an almost indef-
inite time."

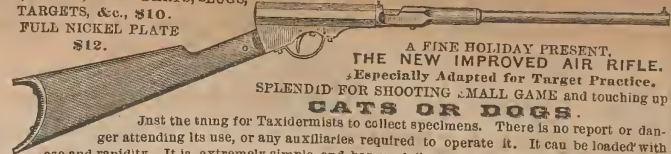
Our Leather Jackets and Vests
are the great wind protectors. They are made
from soft, pliable black leather, flannel lined,
and sell at \$9 and \$7.

Our Flexible Tan-Color
Waterproof Leather Coats
and Breeches
are considered the finest things ever made.
They sell at \$22 and \$15.

An illustrated circular, containing full des-
cription of each garment, with sample of the
material from which made, will be sent free
on application.

Address
G. W. SIMMONS & SON,
OAK HALL, BOSTON, MASS.

PRICE, BOXED, WITH DARTS, SLUGS,
TARGETS, &c., \$10.
FULL NICKEL PLATE
\$12.



A FINE HOLIDAY PRESENT.
THE NEW IMPROVED AIR RIFLE.
Especially Adapted for Target Practice.
SPLENDID FOR SHOOTING SMALL GAME and touching up
CATS OR DOGS.
Just the thing for Taxidermists to collect specimens. There is no report or dan-
ger attending its use, or any auxiliaries required to operate it. It can be loaded with
ease and rapidly. It is extremely simple, and has no delicate parts to get out of order or wear
out. For sale by the Trade generally. Sent upon receipt of price or C. O. D.
SEND FOR CIRCULAR. H. M. QUACKENBUSH, Patentee and M'r, Herkimer, N. Y.

Hart's Sportsman's Favorite Metallic Shells.
FOR BREECH-LOADING SHOT GUNS.

These Shells are easily loaded, and the caps easily extracted from inside.
Head solid and much thicker than any Shell now made, giving a solid seal for cone or anvil, which prevents
it from driving through or springing away, thereby causing miss-fires. The Cone is made of nickel, and fast-
ened solid in its place. Neither rusts nor corrodes fast, like movable anvil made from steel. The Nickel
Cone also prevents miss-fire when a cap has been left on shell for a few days, which is liable to occur either
in steel or iron. These Shells are finely finished, and made any length ordered, from 2 1/2 to 3 1/2 inches.

FROM CAPTAIN BOGARDUS, CHAMPION WING-SHOT OF AMERICA.
Messrs. GEORGE E. HART & Co.--Gentlemen: The fifty Shells I received from you to-day suit me better
than any I have ever used. They are stronger and better in every respect, and I shall use them in all my
shooting hereafter. Yours truly, A. H. BOGARDUS.

A VICTORIOUS INVENTION
The Eagle Claw.

An ingenious device for the purpose of catching all kinds of
Animals, Fish and Game.
The easy method of setting the Eagle Claw, combined with
the simplicity of removing the victim, are among its peculiar
advantages.

It is immaterial how to place it when set. It may be buried
flat in the ground, suspended from the limb of a tree, or, when
occasion requires, covered with grass, leaves or other light
material without in any way impairing its certain operation.

It is adapted for bait of any description, and, when set, no
Animal, Fish or Bird that touches the bait, can possibly escape.
It does not mangle or injure its victims in the slightest
degree, nor need they be handled to free them from the trap.

PRICE LIST.
No. 1--For fishing and all kinds of small game and animals,
sent by mail..... 35 cents.
No. 2--For catching Mink, Muskrats, Raccoons, large Game,
Fish, etc..... 50 cents.
No. 3, or Rocky Mountain Giant, for catching Bears, Wolves,
Panthers, etc. Can be easily set by a boy, and will stand a
strain of several hundred pounds. Weight, 10 to 15 lbs. \$10.
All goods sent, charges paid, to any address on receipt of
price. Address

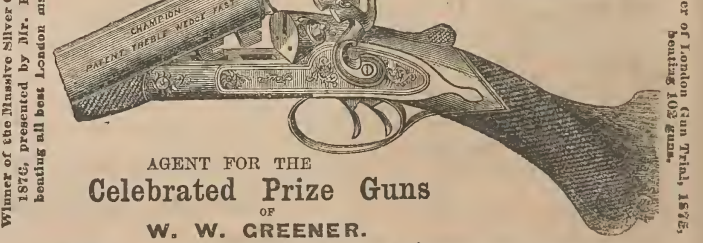
Stent & Co., Mfr's. Agents,
132 Nassau St.,
NEW YORK.
P. O. box 2997.

AGENTS WANTED.
SHARPS' RIFLES---MODEL 1878.

ORDERS FOR THE NEW MILITARY AND LONG-RANGE RIFLE ARE NOW BEING FILLED.
SEND FOR ILLUSTRATED PRICE LIST.
Sharps' Rifle Co., Bridgeport, Conn.
NEW YORK WAREROOMS, 177 BROADWAY.

HENRY C. SQUIRES,
No. 1 CORTLANDT STREET,

THIRD DOOR FROM
BROADWAY.



AGENT FOR THE
Celebrated Prize Guns
OF
W. W. GREENER.
These guns have been winners in every trial during the last three years, competing with all the first-
class makers in England. The shooting of every gun is guaranteed, and prices as low as consistent with
the good work. Guns built to exact order of sportsmen. I keep the best selected stock of guns by all the
great makers to be found in this city, including Scott, Wobley, Remington, Parker and Fox. Marshall's
new Glass Ball Trap, \$3; three traps, \$12. English chilled shot, all sizes and in any quantities. Agent for
Dittmar powder. Complete outfits for hunting and camping. Best Breech-Loader ever offered in the
United States for \$35. Wholesale Agent for Holabird's Shooting Suits, and Camp Lounge Company.

Metropolitan Hotel,
WASHINGTON, D. C.
Carrollton Hotel,
BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous
hotels, are well known to the old patrons of the
ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.

THE METROPOLITAN
is midway between the Capitol and the White
House, and the most convenient location in the city.
It has been re-fitted and re-furnished throughout.
The cuisine is perfect; the service regular, and
charges moderate.

R. B. COLEMAN & CO.
HALSEY HOUSE,
ATLANTICVILLE, LONG ISLAND,
is nearer New York City than any house bordering on
Shinnecock Bay. Is as near, and has as good shoot-
ing grounds, and as experienced attendants (with live
geese and other decoys, batteries, etc., always on
hand); nearer the station; the largest and the best
kept house in the bay. L. I. RR. to Atlanticville
Station. Fare, \$2. Stage meets all trains. W. F.
HALSEY, Owner and Proprietor.
Atlanticville, L. I., Oct. 20, 1877.

Wild Fowl Shooting.
SPRINGVILLE HOUSE OR SPORTSMEN'S RE-
TREAT, SHINNECOCK BAY, L. I.,
By a practical gunner and an old bayman. Has
always on hand the best of boats, batteries, etc.,
with the largest rig of trained wild-geese decoys on
the coast. Special attention given by himself to his
guests, and satisfaction guaranteed. Address WM.
N. LANE, Good Ground, L. I. News 17

UNION SQUARE HOTEL,
UNION SQUARE, Corner 15th Street, New York.

A. J. DAM & SONS, Proprietors.
E. THOMAS, JR.,
GUNS, PISTOLS, SPORTING GOODS,
174 South Clark Street, Chicago, Ill.

N.Y. Newspaper Mailing Agency
With the latest Improved Newspaper Folding and
Mailing Machines, No. 13 Spruce street.
JAMES BRADY, Manager and Proprietor.
Oct 25

Publications.

LONG-RANGE

RIFLE SHOOTING.

A Complete History of the International Long-Range Matches, 1873-1877—Complete Elcho Shield Scores—Rules and Regulations of the N. R. A. Etc., Etc.

FULLY ILLUSTRATED

RIFLE EDITOR OF THE "FOREST AND STREAM AND ROD AND GUN."

Price 25 cents.

NEW YORK.

Published by the Forest and Stream Pub. Co. 1877.

Bound Volumes

OF

Forest and Stream.

EIGHTH VOLUME, NOW READY.

First Four Volumes, \$4 each, Others, \$3.50.

A complete set of the FOREST AND STREAM—seven volumes, bound handsomely in cloth—a valuable library for the sportsman—can now be obtained on application to this office.

BINDERS.

Get your fine books bound. Art Journal bound uniform to London publishers' style. Picturesque America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done into or three days if required.

R. WALKER'S SONS, 14 Dey street.

Camp Life in Florida.

CHARLES HALLOCK,

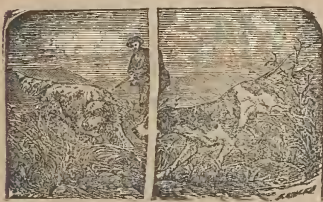
AUTHOR OF THE FISHING TOURIST,

Published by Forest and Stream Publishing Co.,

No. 111 FULTON STREET, NEW YORK,

And for sale by all booksellers. Sent by mail, postage prepaid, on receipt of price (\$1.50) at office of publication.

FRANK SCHLEY'S AMERICAN



Partridge & Pheasant Shooting.

Describing the Haunts, Habits, and Methods of Hunting and Shooting the American Partridge—Quail; Ruffed Grouse—Pheasants, with directions for handling the gun, training the dog, and shooting on the wing. Price, \$2. Liberal discount to the trade.

To be had at book stores generally. Address, Frank Schley, Frederick City, Md.

KNOW THYSELF

A new Medical treatise, "The Science of Life, or Self-Preservation, a book for everybody. Price \$1, sent by mail. Fifty original prescriptions, either one of which is worth ten times the price of the book. Gold medal awarded the author. The Boston Herald says: "The Science of Life is, beyond all comparison, the most extraordinary work on Physiology ever published." An Illustrated Pamphlet sent FREE. Address D. L. W. H. PARKER, No. 4 Bulfinch Street, Boston, Mass. Oct 23rd

HEAL THYSELF

The Southern Guide.

A finely illustrated quarterly periodical, exhibiting the characteristics and resources of the Southern States. One dollar p. year; single copies, 25 cents. Published by

BRAMHALL & CO., Washington, D. C. Dec 3rd

POULTRY WORLD—a splendidly illustrated monthly, \$1.35 a year. Send 10 cts for a specimen copy. Address POULTRY WORLD, Hartford, Conn. Dec 1st

Publications.

Sportsman's Gazetteer

AND

GENERAL GUIDE,

By CHARLES HALLOCK,

Editor "Forest and Stream and Rod and Gun."

896 pp., Price \$3.

Tinted Paper, \$4; half-bound mo., \$5.

A complete Dictionary for Sportsmen. Everybody wants it that has a dog, gun or fishing rod.

A complete description of all kinds of Game, Fish, etc. Field Sports, Woodcraft, Angling, Fly-Ting, Dogs, Dog Breeding, Diseases and Treatment, Boating and Boat-building.

Several thousand localities where game and fish are to be found.

Nothing of the kind ever before published worth ten times the price.

PUBLISHED BY

FOREST & STREAM PUBLISHING CO.

111 Fulton street, New York.

KANSAS.

All about its Soil, Climate, Resources, Products, Laws, and its People are given in the "Kansas Farmer," a 10-page Weekly, in its fifteenth year. Postpaid, three months, 60 cents. Address

J. K. HUDSON, Topeka, Kansas.

Has quickly taken a high place among agricultural journals.—N. Y. Tribune. We have considered it among the best of our exchanges, and a worthy representative of the West.—Practical Farmer, Philadelphia. Our Kansas friends should feel much pride in the high character and sterling worth of their State agricultural paper.—National Live-Stock Journal. We cheerfully credit it with being one of the best edited of our Western agricultural exchanges.—Spirit of the Times, N. Y. 13 41

Sportsmen's Routes.

STONINGTON LINE

REDUCED FARE: FOR BOSTON AND ALL POINTS EAST. Elegant Steamers STONINGTON and NARRAGANSETT leave Pier 33 North River, foot Jay St. at 5:00 P.M. NOT A TRIP MISSED IN SEVEN YEARS.

Tickets for sale at all principal ticket offices, State rooms secured at offices of Westcott Express Company, and at 363 Broadway, New York, and 393 Washington St., Brooklyn.

PROVIDENCE LINE.

Freight only, steamers leave Pier 37, North River, foot Park Place, at 4:30 P. M. Freights via either line taken at lowest rates. L. W. FULKINS, G. P. Agent. D. S. BARCOCK, Pres.

FOR FLORIDA

FOR THROUGH TICKETS TO FERNANDINA JACKSONVILLE, ST. AUGUSTINE, SANFORD, ENTERPRISE, and intermediate landings on ST. JOHN'S RIVER and interior points in FLORIDA, by steamship to SAVANNAH, and thence by railroad or steamboat, apply to WM. L. JAMES, General Agent.

Philadelphia and Southern Mail S. S. Co., Pier 23 South Delaware Avenue, Phila.

Dec 1-ly

"The Bermudas."

NOW A FAVORITE AND DELIGHTFUL WINTER RESORT, is reached in seventy hours from New York, and being surrounded by the warm waters of the Gulf Stream enjoys an equable temperature of about 70 deg.

The elegant British Steamships "Bermuda," and "Camina," 1,000 tons, fitted expressly for the passenger travel, are dispatched from New York for Bermuda fortnightly, making connection at Bermuda with steamers for St. Thomas and West Indies. For full information apply to A. E. OUTERBRIDGE, Agent, 29 Broadway, N. Y. Dec 21 ly.

St. Paul and St. Louis Short Line.

Burlington, C. Rapid- & N'rth'n Railway.

QUICKEST, CHEAPEST AND BEST!

TWO PASSENGER TRAINS EACH WAY DAILY, crossing into connecting with all East and West Lines in Iowa, running through some of the finest hunting grounds in the Northwest for Geese, Ducks, Pinnated and Ruffed Grouse and Quail. Sportsmen and their dogs taken good care of. Reduced rates on parties of ten or more upon application to General Ticket Office, Cedar Rapids. C. J. IVES, E. E. WINSLOW, Gen. Passenger Agent. General Manager.

Sportsmen's Routes.

REDUCTION OF FARE.

\$3 NEW YORK TO BOSTON VIA THE

Fall River Line

To Boston and Return, \$5.

Magnificent Steamers NEWPORT and OLD COLONY leave New York daily (Sundays excepted) at 4:30 P. M. This is the only Sound Line giving passengers a FULL NIGHT'S REST. Passengers take any one of the FIVE MORNING TRAINS from Fall River to Boston. BORDEN & LOVELL, GEO. L. CONNOR, Agents. General Pass Agent.

NEW YORK AND PHILADELPHIA NEW LINE

BOUND BROOK ROUTE, FOR TRENTON AND PHILADELPHIA. COMMENCING NOVEMBER 26, 1877.

STATION N. B. W. YORK.—Foot of Liberty st. N. R. Leave New York for Trenton and Philadelphia at 6:30, 8, 9:30, 11:30 A. M., 1:30, 3:30, 5:30, 12 P. M., and at 4 P. M. for Trenton.

Leave Philadelphia from station North Pennsylvania Railroad, Third and Berks streets, at 12:05 7:30, 9:30, 11:30 A. M., 1:30, 3:30, 5:30 P. M.

Leave Trenton for New York at 1:20, 6:25, 8:05, 10:20 A. M., 12:15, 2:15, 4:10, 6:15 P. M.

Fullman Drawing Room. Cars are attached to the 9:30 A. M., 3:30, P. M. trains from New York and to the 7:30, A. M., 1:30 P. M. trains from Philadelphia.

SUNDAY TRAINS—Leave New York and Philadelphia at 9:30 A. M., 5:30, 12 P. M. Leave Trenton for New York at 1:30, 3:30 A. M., 6:10 P. M.

Tickets for sale at foot of Liberty street, Nos. 629 and 944 Broadway, at the principal hotels, all offices of the Erie Railway in New York and Brooklyn, and at No. 4 Court street, Brooklyn. Baggage checked from residence to destination.

Sept 13 ly H. P. BALDWIN, Gen. Pass. Agent

GREAT SOUTHERN Freight & Pass'ger Line,

VIA

Charleston S. C.

The South. and the Southwest AND THE

FLORIDA PORTS,

Wednesday and Saturday At 3 o'clock P. M. From Pier 27, N. R.

CITY OF ATLANTA, CHARLESTON, Capt. M. S. Woodhill. Capt. R. W. Lockwood. SANTIAGO DE CUBA, G. W. CLYDE, Capt. S. Crowell. Capt. Ingraham.

The above steamers have been handsomely fitted up for the convenience of passengers, and are unrivalled on the coast for

Safety, Speed and Comfort.

Close connections at Charleston with the favorite and well-known Florida packets, DIGATOR, Capt. Vogel; CITY POINT, Capt. Scott; for FERRANDINA, JACKSONVILLE, ST. AUGUSTINE, PALATKA, ENTERPRISE, MELONVILLE and all points in Florida.

EXCURSION TICKETS AT REDUCED RATES. Insurance to destination ONE-HALF OF ONE PER CENT.

Goods forwarded free of Commission. Passage tickets and Full Rate Landing and Stevedoring at the office of JAMES W. QUINCY and Co. Agents, at Pier 27, N. R., foot Park Place, Office on the wharf.

W. P. CLYDE & CO., No. 6 Bowling Green. Through Freight Tariffs, Passage Tickets by all routes and to all points in the South and Southwest, and further information can be obtained at the office of BENTLEY D. HASELL, General Agent, Great Southern Freight Line, 317 Broadway, corner of Thomas street. Oct 15 77

TO SPORTSMEN:

THE PENNSYLVANIA R. R. CO.

Respectfully invite attention to the

Superior Facilities

afforded by their lines for reaching most of the TROTTLING PARKS and RACE COURSES in the Middle States. These lines being CONTINUOUS FROM ALL IMPORTANT POINTS, avoid the difficulties and dangers of reshipment, while the excellent cars which run over the smooth steel tracks enable STOCK TO BE TRANSPORTED without failure or delay.

The lines of Pennsylvania Railroad Company also reach the best localities for GUNNING AND FISHING

in Pennsylvania and New Jersey. EXCURSION TICKETS are sold at the offices of the Company in all the principal cities to KANE, RENOVIA, BEDFORD, CRESSON, RAISTON, MINNEQUA, and other well-known centers for

Trout Fishing, Wing Shooting, and Still Hunting.

Also, to TUCKERTON, BEACH HAVEN, CAPE MAY, SQUAN, and points on the NEW JERSEY COAST, renowned for BULL WATER SPORT AFTER FIN AND FEATHER.

L. P. FARMER, Gen'l Pass. Agent. FRANK THOMSON, Gen'l Manager. Feb 17-77

Old Dominion Line.

The steamers of this Line reach some of the finest waterfowl and upland shooting sections in the country. Connections direct for Chincoteague, Cobb's Island, and points on the Peninsula: City Point, James' River, Currituck, Florida, and the mountainous country of Virginia, Tennessee, etc. Norfolk steamers sail Tuesday, Thursday and Saturday; Delaware, Monday and Friday at 3 P. M. Full information given at office, 187 Greenwich St., New York Sep 23 ly

Sportsmen's Routes.

SAVANNAH, CA., ST. AUGUSTINE, FLA., NASSAU, N. P., HAVANA, CUBA.

From Savannah, Ga., to Nassau, N. P., and Havana, Cuba, via St. Augustine, Fla., steamship San Jacinto will sail Jan 1, 15 and 28, and every alternate Tuesday. Connecting steamers leave New York on Dec. 29, Jan. 12 and 26.

FOR NASSAU DIRECT,

Steamship Carondelet, January 2 and February 2, and monthly thereafter from Pier 16, East River, New York.

For all particulars, illustrated guide, &c., apply to

MURRAY, FERRIS & CO., No. 62 South St.

ONLY DIRECT

FLORIDA LINE.

For Fernandina, Fla., Port Royal, S. C., and Brunswick, Ga.

Sailing every FRIDAY from Pier 20, E. R., at 3 P. M.

Close connection made at each port with all railroads for the interior, and at Fernandina with the steamer Carrie (which has been refurbished), for Jacksonville and the St. John's River.

For through rates of freight and passage to all points in the South and Southwest, apply to

G. H. MALLORY & CO., Agents, 153 Maiden Lane, Nov 29 4m NEW YORK.

NEW HAVEN, HARTFORD, SPRINGFIELD,

AND THE NORTH.

The first-class steamer ELM CITY leaves Pier 25, East River, daily (Sundays excepted) at 3 P. M. Passengers to North and East at 12 P. M.

NIGHT LINE—THE CONTINENTAL leaves New York at 11 P. M., arriving in New Haven in time for the early morning train.

Merchandise forwarded by daily express freight train from New Haven through to Massachusetts, Vermont, Western New Hampshire, Northern New York and Canada. Freight received until 5 P. M.

RICHARD PECK, General Agent.

HUNTING

FOR DEER, BEAR, PARTRIDGES, DUCKS, Take the Grand Rapids and Indiana Railroad.

FISHING

FOR FISH, PICKEREL, BASS, ETC., Follow the G. R. and I.—The "Fishing" Line

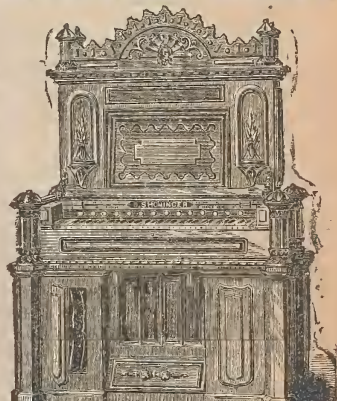
Time, New York to Grand Rapids, 37 hours.

EXPENSES LOW.

Shooting season expires December 15. For information as to routes, ratio and best points for the various kinds of game, etc. Apply to

A. B. LEET, Gen. Pass. Agent, Grand Rapids, Mich. Eastern Agent, 116 Market St., Phila., Pa. Nov 22 77

SHONINGER ORGANS.



PRONOUNCED UNANIMOUSLY AS THE Best Instruments.

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:

"The B. SHONINGER ORGAN CO.'s exhibit as the best instruments at a price rendering them possible to a large class of purchasers, having a combination of Notes and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, less liable to get out of order, all the boards being made thickly, put together so it is impossible for them to either shrink, swell or split." THE ONLY ORGANS AWARDED THIS RANK.

This Medal and Award was granted after the most severe competition of the best makers, before one of the most competent Juries ever assembled.

New styles and prices just issued, which are in accordance with our rule, the BEST ORGANS for the least money.

We are prepared to appoint a few new Agents. Illustrated Catalogues mailed, postpaid, upon application to

B. SHONINGER ORGAN CO.,

97 to 123 Chestnut Street,

NEW HAVEN, CONN

Guns, Rifles, Etc.

Second-Hand Guns

AND SPORTING GOODS, WHICH CAN BE BOUGHT CHEAP AT J. F. MARSTERS, 125 NASSAU ST., N. Y.

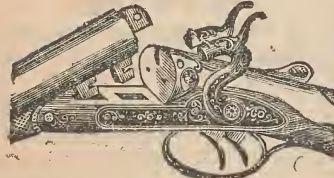
- One Scott Premier 10-gauge choke-bore, weight 9 lbs., in first-class order, with case, price... \$225
- One Remington Sporting Rifle, made to order, pistol grip, rubber heel to prevent recoil, .44-calibre..... 50
- One Hollis' 10-bore, 9 lb., pistol-grip, rebounding locks..... 70
- One Remington Military Rifle, 1,000-yard range, 15
- One French Double Gun, pin-fire, 16-gauge..... 25
- One More & Harris Muzzle-Loader, 10-gauge, 8 1/2 lbs., double gun..... 35
- One Hollis' Ducking double gun, 8 gauge, 14 lb. 25
- One Scott Muzzle-Loader, 12 lb., 9-gauge, 34-in. 25
- One Ballard Rifle, .44-cal., 10 lbs. 20
- One Colt's Revolving Rifle, 6 shot..... 18
- One Maynard Rifle, little else worse for wear..... 9
- One Single Muzzle-Loader, 10-gauge, cost \$45. 15
- One Single Breech-Loader, Stephen's make..... 10
- One Skeleton Stock Stephen's Rifle, .23-calibre, in case..... 12
- One General Fishing Rod, will make up different rods, German silver-mounted, cost \$40. 20
- One large German silver-trouled reel, holds 600 feet line..... 10



**Ronan's Metal Shell Cleaner.**  
Cleans fifty shells in ten minutes. No water used. Knives elastic, self-adjusting, prevent the slipping of wads. Is unequalled as a breech wiper by covering with an oiled cloth. For sale by all gun dealers, or sample sent free by mail on receipt of price, \$1.00, 10 and 12 bore. J. F. RONAN, 788 Shawmut Avenue Boston, Mass. Liberal discount to the trade.

Nov 5

THE CHOKE-BORE MATCH.



W. W. GREENER begs to inform his numerous patrons in America that his gun has again come off victorious at the great match of Choke-Bore vs. Cylinder Bore, at the London Gun Club, on May 28, beating seventeen of the best shots in Great Britain who used guns by the best London makers, viz.: Four made by Grant, three by Purdy, three by Dougal, one by Lancaster, Boss and others.

[See London Field, May 28, Editorial Remarks.]  
"Mr. Choimondley Pennell, the winner of Mr. Purdy's massive fifty guinea cup, weighing over 91 ozs., for the highest score, shot wonderfully well, killing all his birds at 30 yards with the first barrel. The gun he used was a tall choke, by Greener, of Birmingham. The result of the trial served to show the superiority of the choke at the long range. Mr. C. Pennell cutting down his birds in a marvellous way with his heavy Greener."

**W. W. GREENER,**  
St. Mary's Works, Birmingham, and 68 Haymarket, London.

Read "Choke-Bore Guns and How to Load," by Cassell, Pelter & Galpin, New York.

**GOOD'S OIL TANNED MOCCASINS.**  
The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine article. Send for illustrated circular. MARTIN S. HUTCHINGS, P. O. Box 363, Dover, N. H. (Successor to Frank Good.)  
W. HOLBERTON, 102 Nassau St., N. Y., Agent.

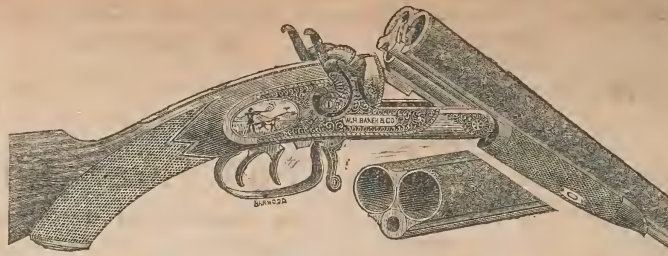
Fishing Tackle.

**H. L. LEONARD,**  
Manufacturer of every variety of FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty

Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof ferrule," and warranted against imperfections in material and workmanship. Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancelwood, MADE TO ORDER. I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods.

MANUFACTORY, BANGOR, MAINE.  
A variety of my rods may be found at **No. 19 BEAVER ST.,** New York City (Up Stairs).



Three-Barrelled Breech-Loading Guns, TWO SHOT AND ONE RIFLE.

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.  
PRICES—Three barrel, \$75 to \$250. Double barrel shot guns, Damascus barrel, \$50 to \$200. Twist barrel, \$35.  
W. H. BAKER & CO., Syracuse, New York.

IRA A. PAINE'S CHAMPION FILLED GLASS BALL.

PATENTED OCTOBER 23.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the services of that well-known sportsman, IRA A. PAINE, to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell. They will eventually be the Standard Ball. Out of One Million already sold, not one complaint. No Fancy Price, but a fair profit. Every ball is warranted to give satisfaction. The number of orders from all parts of the country speak volumes. Every ball is weighed and examined, then packed with the greatest care, in barrels of 300. Send for price list. Special inducements to the trade.  
HEADQUARTERS BOHEMIAN GLASS WORKS, 214 Pearl Street, N. Y.

PAINE'S PATENT Feather-Filled Glass Balls and Huber Traps.

MESSRS. WILLIAMS & POWELL HAVE ORDERED 30,000 OF THE FORMER, AND FORTY OF THE LATTER. THEY WILL BE SHIPPED FOR ENGLAND ON SATURDAY NEXT, THIS, WITH THE LATE ORDER FROM W. & C. SCOTT & SONS, EFFECTUALLY ESTABLISHES THE SUPERIORITY OF THE

PAINE FILLED BALLS AND THE HUBER TRAPS.

Dec 13 1m

Bogardus' Patent Rough Glass Balls and Glass Ball Traps.



These Traps are the only ones that give satisfaction, as they are simple of construction, easily set, and not liable to get out of order, and they throw the ball in a manner that more closely resembles the flight of a bird than any other trap in the market. The Patent Rough Glass Balls are made of uniform weight and thickness, and have a corrugated surface that strengthens the ball for shipment to any part of the country, prevents the glancing of shot, and thereby insures the breaking of the ball when hit.  
CAPTAIN BOGARDUS was the first to introduce the ROUGH BALL, and at a price far below the smooth ball at that time.  
Balls and Traps can be ordered through all Gun Dealers. Liberal discount to the Trade.  
MY IMPROVED TRAP (warranted), which will throw a ball in any direction from the shooter at the option of the puller, is now ready for the market. Price 35.

W. & C. SCOTT & SONS have ordered 10,000 balls and 24 traps to be sent to England.

HEADQUARTERS FOR BALLS, HAGGERTY BROS., 10 Platt Street.

FOR TRAPS, GEO. E. HART & CO., Newark, N. J.

Sportsmen's Headquarters

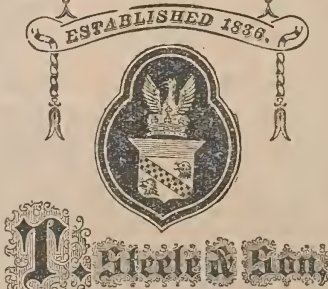
FOR WIN S, LIQUORS AND CIGARS.  
Outfits for yachting. The camp or field a specialty. Olives by the case, gallon or bottle.  
THOS. LYNCH, IMPORTER,  
99 NASSAU ST., Bennett Building, New York. Sept 27

**C. M. BRENNAN,**  
OLD KENTUCKY BOURBON & MONONGAHELA  
South Clark Street, Chicago.

**PIANOS** Retail price \$900 only \$250. Parlor Organs, price \$340 only \$95. Paper free. Dan'l F. Beatty, Washington, N. J. Dec 20

**THOMSON & SON,** MANUFACTURERS OF **Sportsmen's Goods,** No. 801 BROADWAY, P. O. box 1,016, NEW YORK.

50 Mixed Cards, with name, for 10c and stamp. Agent's outfit, 10c. ATWATER BROS., P.O. Box 1,016, Dec 13 1m



JEWELERS AND SILVERSMITHS, HARTFORD, CONNECTICUT.

DEALERS IN Diamonds, Silverware, Watches, Jewelry, etc. FRENCH, GERMAN, AND ENGLISH FANCY GOODS. SPECIAL ATTENTION GIVEN TO THE MANUFACTURE OF APPROPRIATE DESIGNS FOR Shooting, Boating, Racing, and other Prizes.

OUR ILLUSTRATED CATALOGUE,

CONTAINING Three Dozen Wood Cuts of the above and other articles in our line, and including the GAME LAWS OF CONNECTICUT. Mailed to any Address, on receipt of 50 CENTS.

Sportsmen's Goods.

FLORIDA OUTFITS.

Send 10 cents for illustrated catalogue of SHOOTING, FISHING and CAMPING GOODS, with hints and directions for camping, shooting and fishing Bogardus' rules for glass ball shooting, etc., etc.

TENTS, CAMP STOVES, PORTABLE BOATS, RUBBER GOODS, JACK LAMPS, ETC.

Suits of all kinds, including velveteen, corduroy, leather, etc. Also a new style of duck, very soft and pliable.

Fox, Wbley, Scott and other breech-loading guns and rifles. Ammunition of all kinds.

SPLIT BAMBOO RODS.

I am able to offer to sportsmen a very superior article in split bamboo rods for fly and bass fishing and trolling. Call and examine them. Every rod warranted. With skeleton reel-hands, \$16; solid reel-hands, \$23, with tip case, extra tip and bag. These rods have been well tested, and are equal, if not superior, to any in the market.

FLORIDA OUTFITS A SPECIALTY

A supplement to my illustrated catalogue will be ready this week, containing a number of new articles for sportsmen, including price list of

SKATES.

No sportsman should be without "THE SPORTSMAN'S DIARY AND NOTE-BOOK," Blank Scribes, for all kinds of shooting. Rules, etc., bound in leather—A handy size for the pocket. Sent on receipt of 50 cents.

Send no money by mail; remit by draft or P. O. order.

W. HOLBERTON'S SPORTSMEN'S EMPORIUM, P. O. Box 5,109, 102 Nassau St., N. Y.

NOW READY,

THE Sportsman's Gazetteer AND GENERAL GUIDE.

WITH MAPS AND ILLUSTRATIONS, 900 pp., Price, \$3. BY CHARLES HALLOCK,

EDITOR OF "FOREST AND STREAM," AUTHOR OF THE "FISHING TOURIST," "CAMP LIFE IN FLORIDA," ETC.

NEW YORK:

"FOREST AND STREAM" PUBLISHING COMPANY.

The book is a complete manual for sportsmen: It gives every sportsmanlike method for capturing every known game animal, bird and fish in North America.

It designates the proper charges for guns for each kind of game, the various kinds of decoys and blinds, and baits and tackle for the fish. It gives over 4,000 localities where game and fish may be found, and specifies the game found in each locality, the hotel accommodation, and the best route to get there. (The preparation of this Directory was in itself a work of great magnitude.) It gives the scientific name and specific characteristics of each species it describes, with the habitat and breeding season of each—a most valuable contribution to science.

It describes 227 varieties of edible fish alone, that may be taken with the hook; 30 varieties of ducks; 50 varieties of snipe or waders, and the different methods of shooting each.

Its instructions for capturing large game are very minute, and the chapters on woodcraft, outfitting and camping have been pronounced by "El Cazador," of Los Angeles, California, to be simply complete. Every kind of dog used for sport is designated, and his points for bench judgments fully given. The chapters relating to selection, breeding, rearing, breaking, care and diseases, comprise a seventh part of the volume. There are 71 prescriptions and recipes given under the revision of the best modern canine therapeutists.

It is in itself the most concise, accurate, instructive, sensible and comprehensive work ever written upon the dog and his diseases. Any physician can administer the prescriptions with perfect confidence in their safety and efficacy.

It contains very useful recipes and remedies for wounds, bites, poisons, illness, and emergencies of all kinds; for cleaning, repairing, and preserving every implement used for sport; for selection and use of every kind of boat employed by sportsmen; a reference list of several hundred books in request by sportsmen, and a directory where to buy outfitting goods.

It instructs in taxidermy, and tells how to preserve and mount specimens of animals, birds and fish.

W. M. HABIRSHAW, F. C. S., 36 New Street, City, ANALYST FOR THE CHEMICAL TRADE, OF NEW YORK. CHEMIST OF THE N. Y. STATE AGRICULTURAL SOCIETY ANALYTICAL CHEMIST TO THE NEW YORK PRODUCE EXCHANGE. Dec 27 4t

# FOREST AND STREAM

## ROD & GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year.  
Ten Cents a Copy.

NEW YORK, THURSDAY, JANUARY 17, 1878.

Volume 9.—No. 24.  
[No. 111 Fulton St., N.Y.]

### THE JOYS OF THE FIELD.

Selected.

THEY sing of the dashing dragoon,  
The soldier so gallant to see,  
Of jolly Jack Tar in his uniform blue,  
But the life of the hunter for me.  
His jacket of canvas so trim,  
His step so elastic and free,  
With gun on his shoulder and dogs by his side;—  
The joys of the field for me.

With pockets all over his coat,  
Each furnished with provident skill;  
A bold joyous eye and a confident heart,  
He's sportsman or soldier at will.  
Then "hie boys! go on!" is the word,  
It quickens the pulses to see  
His trusty companions in eager career;—  
The joys of the field for me.

Ho! steady! he has them! old Stannah;  
How rigid the pup backs his sire;  
Head up and half turned, with a *whirr* up they spring,  
Now! right and left give them your fire;  
A double and odd to the score.  
"Down, charge," load and gather the three,  
Then, on to the covert with footsteps alert;—  
The joys of the field for me.

And when the sun sinks in the west,  
With purple and gold all a flame,  
The sportsman exults in the glorious scene,  
But most he exults in his game.  
With pockets well filled for his toll,  
And step still elastic and free,  
He trolls a stout ditty and marches for home;—  
The joys of the field for me.

Behold, at the bountiful board,  
St. Hubert, what havoc he makes;  
Charging gallantly into a platoon of meats,  
And scaling a tower of cakes!  
Then a pipe, and perhaps something hot  
Before bed, is the thing, don't you see,  
With slumbers far sweeter than poppies can bring;—  
The joys of the field for me.

Ye Sybarites, worshipping ease,  
Who droop at the scent of a rose;  
How little ye reck what a treasure of joy  
Old Pan on the sportsman bestows.  
From the clusters the rarest we'll press,  
Libations, Great Patron, to thee!  
Success to the sportsman and health to his dogs;—  
The joys of the field for me.

—Germantown Telegraph.

For Forest and Stream and Rod and Gun.

### Voyaging on the Upper Missouri.

By ERNEST INGERSOLL.  
NO. II.

ORIGIN OF THE NORTHWESTERN FUR TRADE—FORT BENTON—  
SYSTEM OF TRADING—BATTLES WITH THE BLACKFEET—AN-  
ECDOTES OF THE VOYAGEURS—PROSPERITY OF THE MODERN  
TOWN.

THIRTY-FIVE miles below the Falls of the Missouri stands Fort Benton, the *ultima thule* of my boyish imagination—a spot containing more adventurous romance, I thought, than any other place on the globe. And it is pleasant to add that, when unexpectedly I found myself at this Mecca of my Northwestern pilgrimage, I was not more disappointed than my later experience had prepared me for.

When, in 1642, Charles II. granted to the "Hudson's Bay Fur Company" a monopoly of the fur trade of all North America, he set up a monarchy on this continent far more powerful in actual arbitrary control of its subjects than was his own rule in England, and one which was sure to engender rivalry and opposition, even though it was 200 years in rising. The operations of this company were chiefly confined to what is now called British America, and, although its traders made excursions southward, it had no posts established on the Missouri. In the early part of the present century the Northwestern Fur Company, consisting of New York and Canadian merchants, was started to trade with the Indians of this region, but was soon replaced by the American Fur Company—as the firm of Pierre Choteau & Co., of St. Louis, was called—which pushed its trading posts further and fur-

ther up the Missouri. An intense competition, of course, sprang up between the old and the young company, several times leading to bloodshed. Fort Union having been established at the mouth of the Yellowstone in 1829 as a basis of supplies, exploring and trading expeditions were sent up the river, building stockades at various points, mainly of a temporary character, until, in 1846, a very substantial fort was erected by Major Alexander Culbertson on the north bank of the Missouri, at the head of navigation, 667 miles above Fort Union and 2,663 miles from St. Louis by river. The new fort was named in honor of Governor and Senator Thos. H. Benton, of Missouri, who, some years before, had rescued the company from a ruinous litigation.

Fort Benton was 250 feet square, and, except the front, wholly built of sun-dried bricks. The picturesque structure is still standing, although long since disused. The wall of gray adobes are of great thickness, able to resist any mode of attack likely to be brought against them, while at opposite corners two square bastion towers surmount the walls, from which an enfilading fire could be poured upon besiegers. Built against the wall inside are the ware-rooms and the barracks of the score or so of men employed, while the log dwellings and offices of the agents and officers constitute the front of the quadrangle. The roofs of all the buildings are covered with earth as a protection against fire. There is but one entrance—a massive, doubled leaved gate. At one side of this entrance, within the wall, stands the store, and at the other side a warehouse, the inner corners of these buildings being connected by a stockade and second gate similar to the outer portal, enclosing a strong room without any roof. In the side of the store, about five feet from the ground, was a hole eighteen inches square, with a strong shutter-fastening inside. When the Indians wanted to trade, the inner gate was closed; a man would stand at the outer gate until as many Indians as the space between the gates would contain had passed in; then he would lock the outer gate and go through the trading hole into the store. The Indians would then pass whatever articles each one had to trade through the hole and the trader would throw out whatever the Indian wanted, to the value in trade of the article received. When the party were done trading, they were turned out and another party admitted. In that way the Indians were entirely at the mercy of the traders, for they could all be killed through loop-holes in the store. The articles brought by the Indians for trade were buffalo robes, elk, deer, antelope, bear, wolf, beaver, otter, fox, mink, martin, wild-cat, skunk and badger skins. The sale of whiskey had been interdicted by Congress, and for fear of danger to themselves the traders did not sell them guns; but when an Indian proved to be a good hunter and a good friend to the traders by his actions and talk, he could occasionally borrow a gun and a few loads of ammunition to make a hunt. The principal articles of trade were alcohol, blankets, blue and scarlet cloth, sheeting (domestics), ticking, tobacco, knives, fire-steels, arrow points, files, brass wire (different sizes), beads, brass tacks, leather belts (from four to ten inches wide), silver ornaments for hair, shells, axes, hatchets, etc.

The system pursued kept all the subordinate employees of the company in actual bondage. The men were paid only \$200 to \$250 a year, and were charged outrageous prices for the necessities of life. A cup of ammunition, coffee, sugar, flour or lard cost a dollar; an ordinary flannel shirt from ten to twenty dollars, and so on. The men consequently dressed entirely in buckskin, and lived for months together solely on meat without any salt, and little green stuff. Everything (except the flesh and skins of wild animals) had to be brought from Fort Union—and at first from St. Louis—in keel-boats, which, much of the way, it was impossible to row against the current, the only means of progress being by walking along the bank and dragging the boat by a towing-rope held across the shoulder. This was termed "cordelling," and some of the old Frenchmen yet alive point to their bent backs and knotted hands as evidence of the terribly hard work it was. The result was that the laborers were in a perpetual bondage of debt to the company, and their only hope of escape, or chance of "getting ahead," was to run away and roam through the mountains as independent trappers, which many of them did, passing lives of the most startling adventure.

Several trading stations had preceded Fort Benton—one of

which—Fort McKenzie—on the Brule bottoms, a short distance below, had been occupied by Major Culbertson for eleven years, and was the scene of the defeat of the Crow chief, Rotten Belly, whose fame is preserved in the name of a prominent butte and canyon near by.

This celebrated chief, urged on by his people, had previously beleaguered Fort McKenzie, capturing all the animals of the fort. The place was in charge of Mr. Culbertson, and there were but nineteen men to defend it. For a month this little force baffled all the attempts of the crows to get possession. Being, however, in a starving condition, and it being apparent that they could not hold out much longer, resort was had to stratagem. Twenty-nine squaws in the garrison were dressed in men's clothes, and, with arms in their hands, were distributed around the fort in sight of the Crows, who, thus deceived in reference to the force defending the place, became disheartened, drew off and separated. Rotten Belly, with a portion, mortified at his failure, declared he would go north and seek death in battle. On reaching the rocks and seeing the Gros Ventres, he said: "Here I will die to-day; you have brought me to this," and rushing upon his enemies he killed two, and then received his death wound. Before his death he advised his people to be the friends of the whites, saying it was their only chance to escape defeat and utter ruin.

In 1842, the Blackfeet Indians having become troublesome, F. A. Chardon, then in charge of the fort, concluded to punish them. He waited until a trading party came in, and when they were assembled in front of the gate, he suddenly opened it and fired upon them with a small canon loaded with musket balls, afterward killing all the wounded with knives. Thirty were thus massacred. The result was such a determined war by the outraged tribe that the fort had to be abandoned and another (Fort F. A. Chardon) built at the mouth of the Judith River.

Fort Benton was commanded by various officers after Major Culbertson, but none of them is so well remembered as "Old Man Dawson." He was a pompous, dignified, strict man—something of a tyrant, but very well liked on the whole. Many anecdotes are preserved of him. One winter when everybody was nearly starving, an old *voyageur* named Viall killed one of Mr. Dawson's precious pigs and divided it among the garrison. The commandant, finally discovering the thief, ordered the value of the porker to be charged against him. Viall could do nothing but bide his time. Soon after that Dawson had occasion to go to a neighboring post and took Viall with him. On the way his horse stumbled, pitching his rider into a coulee, whence he called Viall to extricate him. The old Frenchman paid no attention, and not until the irate factor's language grew strong did Viall condescend to hear his cries and turn back.

"Want me to help ye, eh?" he sneered. "Wall you scratch ze pig in ze big book?"

"No, I won't," replied the testy factor. So Viall rode off. But soon his struggling chief called him back.

"Oh! Viall, give me a lift."

"Wall ye scratch the pig?" Viall was inexorable.

"No, d— me if I will!" Dawson shouted in boiling wrath, and Viall turned his horse's head again, while the factor floundered in vain, and a third time called the old trapper back.

"Wall ye scratch it now 'f I gi' ye a hand?" he asked cautiously, before dismounting.

"Yes; pull me out."

"And will ye gi' me squaw a new dress?" added Viall.

"Yes—here! take hold!"

"And will ye gi' me a new suit of clothes?"

"Yes, yes—anything—only pull me out of this coulee!"

So Viall rescued his employer, and Dawson kept his promises.

Another story of Viall is as follows:

He was once sent to guide some Catholic priests across the Saskatchewan country. On the way they saw a war party of Indians approaching.

"Come on!" cried Viall instantly, "follow me as hard as you can ride."

"Oh, no," replied the missionaries placidly. "Keep quiet; trust in the Lord, and they won't harm us."

But the old *voyageur* preferred to trust to his horse, and made off at the top of his speed, while the Indians robbed

the Jesuits and set them afoot. Finally, after great toil, the priests reached a trading post and met Vial.

"Well," he said to them, "I heard ye got jumped. When ye've been among ze red devils ez long ez I have, ye'll learn it's a d—d sight better to trust to your heels zan ze Lord in an Iujun country."

The fort came to have a permanent importance as the head of steamboat navigation, so that, although little by little the business of the fur companies declined, the old trading-post was not abandoned until 1871. Then it was occupied by United States troops for a time, and since then has been going to dilapidation under the tenantry of half-breed families, who cause its interior to closely resemble a court of Sullivan street tenement-houses. No more do we see Fort Benton a remote, isolated trading post in a broad wilderness wholly possessed by the red savage. Gold has been found in Montana, thousands of stalwart men gather in her gulches, and the vast supplies thus rendered necessary find their way to the mines mainly through the Missouri River. A new and extensive business is created, and under the walls of the old fort a town begins to spring up.

The two firms who have succeeded to the fur and Indian trade of the Northwest both have their headquarters here. They are T. C. Power & Co. and J. G. Baker & Co. The former were post-traders for a year at Fort Sully in 1867. Then they moved their store up here and began to establish out-posts at Cypress Mountain and Forts Walsh and McCloud north of the line, and in Montana at Fort Claggett, Marias River and Fort Shaw, besides a branch office in Helena, and several temporary trading stations. In 1876 they shipped to the East 93,000 buffalo robes, and in 1877, 21,000, all of which were bought from the Indians in exchange for blankets. They handle half of the freight brought up the Missouri, and dispatch it inland by means of their four trains of mule freight wagons. Each of these trains is probably worth \$12,000, and in addition to this they are the proprietors of a bonded line from the sea-board, and are interested in the "Benton (steamboat) Transportation Company." Their business amounts to \$350,000 a year. Baker & Co. began in 1866 to trade in competition with the American Fur Company, and by 1871 had out-distanced them completely. Meanwhile they also established various outposts, and united the business of post-traders, forwarders, bankers and contractors to the Mounted Police. They now run five freight trains, carrying from 80,000 to 100,000 pounds each every trip, during eight months of the year, at the rate of about one cent per pound for each hundred miles. They own one steamboat and have an interest in another, all of which, including banking, enables them to do an annual business approaching \$1,000,000. The two firms together control the fur market of the United States, accumulating more peltries than all the rest of the country together.

Pleasantly located in a crescent of bluffs on the banks of the Missouri, there clear and swift, encompassed by the beautiful and fertile valleys of the Sun River, Teton and Marias, whose broad acres, untouched by plowshare or scythe, yield abundant sustenance not only to the herds of cattle that roam over them, but, at certain seasons, to myriads of buffaloes, antelopes and deer; close to the thickly wooded sides of the Highwood Mountains, in whose valleys are the most precious spots for farms, and whence plenty of timber can be obtained. No other part of Montana offers greater inducements to the immigrant and settler, as no other part of the Territory is more suggestive of commercial, agricultural and mineral wealth. But its chief claim to consideration, no doubt, is the fact that it stands at the head of the navigation of this mighty river, and nearly all the freight of the Northwest must be handled at Fort Benton, as explained above. River transportation is increasing very fast, and becoming so cheap, through competition, compared with wagon freighting, that Fort Benton is buying its dressed lumber at St. Paul cheaper than at Helena, 1,500 miles nearer. The town consequently is growing very rapidly, and improving in its character and number of buildings every year. Two years ago there were only three white ladies in the town, now there are about seventy-five. Neat and comfortable residences have been and are being built on every street; and on every hand are seen evidences of a better and more progressive civilization. Heretofore it has been the case that a shanty or shell of any kind was all that was required to do business in, now the business houses have been so built and remodeled that it gives a substantial, solid appearance to the town. The successful establishment of Snell & Co.'s brick yard is a solution of the perplexing question of cheap and good building materials, and will, it is believed, revolutionize the method of building business houses and residences. Brick can be laid in the walls at \$21 per thousand. I know of no frontier town which can look forward to such substantial prosperity.

For Forest and Stream and Rod and Gun.

#### A CHRISTMAS IN PERIL.

IN CANADA, as in England, Christmas is a time for the full enjoyment of life, of freedom from care, and a determination to rise supreme to all the anxieties caused by trouble or impunctuality. Even the poorest will on that occasion forestall the earnings of weeks to make merry with his friends; and those in a mediocre condition will become lavish in their expenditure, although fully conscious that each draft on the future must be met by disagreeable economy. In the city of Quebec this holiday time is more extended than in most places; it is a carnival of two or three weeks. What little business there is—and during the greater part of the winter hardly any exists, gives way to amusement and gaiety. Concerts, theatricals, parties, balls, charades, snow-shoeing, skating and sleigh-driving constitute a whirl of excitement, which no intensity of cold can chill, no blinding snow-storm smother. Warmly clad, the citizen of Quebec defies all inclemencies of weather and sets at naught thermometers at forty.

A short time since I spent the winter in that almost Arctic city, and really experienced how intense cold can be and how overwhelming a snow-storm may be. I had arrived in the autumn and enjoyed that mythical period, an Indian summer, so often heard of and so seldom witnessed, as pretended by the unbelievers of its existence. The cold, clear nights were followed by hazy mornings, preceding delightfully warm, sunshiny days, while the beautifully variegated tints of the beech, maple and birch, ranging from the pale yellow to the richest crimson, clothed hill and valley. The bracing air gave one renewed life and vigor after the relaxing heats of the

summer, and the contrast between the universal green and the kaleidoscopic panorama fascinated the eye. This weather continued for about three weeks, and gave way to caustic blasts and cold, cutting winds, followed in December by light falls of snow and biting frosts, which hardened the roadways to the durability of stone. Then appeared immense sheets of floating ice in the River St. Lawrence and its tributary, the St. Charles, and suddenly one morning the latter was found completely frozen over, and, although it may seem miraculous, horses and sleighs were the next morning passing over its surface. Roads were marked out leading from Quebec to Beauport and other villages and the Island of Orleans, and in two or three days long lines of vehicles were constantly visible passing and repassing throughout its entire length. Those arriving in the city were laden with firewood, hay, vegetables and fresh provisions, and took away in return drygoods and groceries. But the surface of the St. Charles River was again metamorphosed; a tiny village of about a dozen small houses rose as if by magic in the course of a couple of days, and the inhabitants seemed more numerous than the size of the houses warranted. Sleighs with occupants, dog *traineaux* and foot-passengers were continually coming to and fro, and the intercourse between the city and the mushroom ice hamlet appeared to cease not day nor night. I was told these houses, or huts, were built by fishermen who catch an immense quantity of fresh-water fish called tommy-cods, for a short season about Christmas time; they are caught in such numbers that they are sold for next to nothing, and supply the poor with wholesome food, not only during the season in which they are caught, but during the entire winter, for as soon as taken they become frozen and are then packed away in barrels and stored in an outhouse or shed, ready for sale, quite safe from any deterioration or decay. As by far the greater part of the inhabitants of Quebec are Roman Catholics—probably nine-tenths—this plentiful and cheap supply is a great boon during the long Lenten season. It is a favorite dish and, if properly cooked, is very good; but for my part I did not relish it, and I met with many of the same opinion as myself.

For two or three days before Christmas the city bore an unusual appearance of bustle and excitement; the shops had put on their best regalia, and tradesmen exhibited their most attractive wares; the more public thoroughfares were crowded with pedestrians and vehicles, and every one seemed busy in the purchase of presents and the other essentials of Christmas time; porters and express sleighs rushed through the snow-clad streets laden with parcels and boxes, and all seemed in a state of acute anticipation. To avoid the general hurly scurry, and, perhaps, a little piqued at the indifference paid us by those who had formerly been attentive to myself and party as strangers, an indifference solely caused by the absorption of all the energies on the question of the day, the happy celebration of Christmas, I left with my party on a tandem drive to Indian Lorde, a village ten miles off. The road was level and hard, as not much snow had as yet fallen, and our horses went at a pace utterly impossible to achieve in summer on even the best of macadamized roads. We reached the village in about an hour and a quarter. Although the view of the Falls, surrounded with huge impending pieces of ice and the dazzling white snow was somewhat unique, it was far from equal to the superbly beautiful picture it presented when clothed in the many colored garments of autumn foliage. We returned to town at about ten, when we still found the city in the same state of excitement; every one was in the streets shopping for the wants of the morrow. We, who had no shopping to do, no preparations to make for the coming Christmas, found it intolerable, so determined at once to carry out a scheme which we had before coteemplated—a visit to the fishing *cabannes* by night, when, we were told, the best fishing could be had. The moon shone down on the busy streets as through a mist, and the atmosphere had become somewhat tempered, and in walking over the snow there was no sound of crispness, but our feet seemed even to make an impression upon it.

We left the busy streets and soon found ourselves on the ice of the St. Charles, following the road to the fishermen's huts. There was a cluster of them, arranged without any order, and at different distances apart, connected with each other by foot-paths. They all seemed to be about the same size—twenty feet square—having one door and a couple of windows, while beside each was a pile of firewood, and clear, wood fire smoke curled upward into the misty moonlight, from a common stove pipe, inserted either through the roof or a gable of the hut. On knocking at the door of one, and receiving a civil *entree*, we walked in. It is difficult to say whether the dense fumes of the very worst of tobacco, or the stifling heat was what most affected us. I have been in a sugar factory, where the heat is kept up to an average of 150 degs.; I have leaned over a charcoal kiln; I have smelled the effluvia from a beer vat; I have run a vessel loading horns and hides, and I have been in a patent drug factory, and in many similar places, but they all pale in nauseousness in comparison to the hideous aroma and oppressiveness which welcomed us to this Canadian fisherman's ice hut; six men, all smoking blackened, short pipes, sat on a bench, each having two fishing lures, which were secured to the ceiling, and which were cast into the river through an oblong hole in the floor the entire length of the hut, a hole of a similar size being cut in the ice. Several hooks were attached to each line, and all men were, as constantly as possible, employed in pulling in the lines, each time taking two, three, and sometimes four fish at one draw from the same line. Those taken measured from eight to twelve inches in length. In the centre of the hut was a common Canadian stove, heated to redness, while upon it was a pan of cooking fish. In close proximity to the stove was a pile of green firewood drying, from which the steam rose in stifling, vapory clouds. Two or three tallow dips gave a ghastly, glimmering light. The men themselves were fishermen who had been following their vocation night and day since the season began, and were not accustomed to be regular in their ablutions; in fact in retiring for the night (their dormitory was in the very crumpled attic of the hut, where musty straw pallets, thrown on the floor, were the sole articles of furniture) they omitted the perhaps superfluous custom of disrobing. The reader, by circumstantially considering each of the above conditions may arrive at some vague idea of the effect of the *tout ensemble* upon us, who had just come out of the fresh air. A choking sensation seized me, and I drew instant death from asphyxia. My vision seemed to grow dim, a tightness across the forehead became agonizing, while a dizziness compelled me to lean for support against the wall. I did not recover myself till I was supplied with a small quantity of brandy from my flask. As soon as I could speak I insisted upon immediately returning, but my friends, who perhaps had not been so violently affected as myself, outvoted me, and showed me the absurdity of leaving without at least catching some fish. Very reluctantly I consented, and we intimated to our host our intentions. He was a Guernsey man, called

Christy Gunner, and had been a fisherman all his life, which had reached about sixty years—a weather-beaten red face, with bleary eyes, surmounted a spare and strapping figure, which was clothed in a red shirt, which had become of a decidedly blackened tint, and a pair of doubtfully colored pants, fastened around his waist with a string. On his feet he wore the usual *boths savages*, reaching to the knees, a kind of half-tanned moccasin, which, even when new, has a most trenchant odor. On his head was the country *bonnet rouge*. His companions did not greatly differ from him in attire. Christy Gunner was most attentive to us, and rapidly and dexterously outfitted us with the necessary fishing tackle, and baited our hooks with small pieces of raw liver. I cannot now recall the feeling uppermost in my mind, but I had not long been pulling up the tommy cods by twos and threes, and throwing them into a large box beneath the bench, than a certain enthusiasm or desperation seemed to seize me, an enthralling desire to beat my companions in their catch. Silently I baited and unhooked, unhooked and baited again, as if my life depended on the success of the trial of speed. I know not how long the contest lasted; but I was roused from my unconsciousness to outside things by one of the men calling out "Saurez vous est sur glace." It was certainly covering the floor of the *cabanne*, but, as I wore rubbers, I had not perceived it. Myself and party considered that we were about immediately to be engulfed, but the *sang froid* of the men reassured us. I looked at my watch; it was five o'clock. We had thus continuously fished for about five hours, which seemed to me to have passed as one. I went to the door and opened it, and the cool morning breeze played on my forehead with such reviving freshness that I felt as though I had awakened from the grave to a deathless life. But I could see nothing. The blackness of night covered everything as with a pall. I could not see my hand. I was preparing to step out to still more enjoy the delicious breeze, when Christy called out, in the same time pulling me back by the arm, "Ne sortez pas, monsieur, il y a plus qu'un pied sur la glace." I did not in truth doubt him, but I took my stick, and in the darkness measured the depth of the water. I found it to be one foot two inches. In reflecting upon this very apparent fact, I began to doubt whether the *sang froid* of Christy and his companions was real or assumed. Again, I thought they might have means of escape which we should be unable to follow. The conviction momentarily grew stronger that our position was extremely precarious, and the anxiety of myself and friends became intense. In reply to my question of the cause of the sudden rise of the waters, he said that the tide, instead of raising the ice had overflowed it, and that the water would subside at its fall, which, as it was not yet at its full, would be in eight or nine hours. I asked him how high it might rise in the *cabanne*. "Ah, monsieur, je ne puis pas le dire, peut être, un dix, ou deux pieds." Here, certainly, was consolation for us, but I probably be three or four o'clock before we could leave the hut; and, again, the water would in a short time rise in the hut and compel us to seek refuge in the stifling attic. In the meantime Christy and his party kept up the fire, which I knew must soon be extinguished, and commenced cooking large quantities of fish. This was a wise precaution on their part, for were we to be imprisoned for nine hours, we certainly would require some sort of nourishment, poor as the substitute was. The fish were placed in a sort of cupboard nailed to the wall, in which I noticed plates, cups and saucers, and some bread. The cupboard was about three or four feet from the floor. But the contrivances of Christy to meet all exigencies were not yet completed. As soon as the fish had been cooked and placed in comparative safety, while some of the men were putting the catch of the night in a covered box, others were transporting the firewood to the attic, while others constructed a sort of stand, three feet high, on which, when completed, they placed the stove, near to the entrance-hole in the attic, and from which the fire could be fed. While these operations were being carried out, myself and party had retreated to it, and dismally waited the climax. The men in a short time joined us, and prevailed on us to partake of the humble meal provided, to which we added in the shape of the contents of our flasks. The water had now risen to three feet in the hut. Whether from want of sleep, or the excitement caused by our peculiar position, I soon lost consciousness, and, as I afterward discovered, so did my companions. From our heavy sleep we were awakened by Christy with the joyful intelligence that the tide was falling. It was three o'clock in the afternoon. We looked down to the floor of the *cabanne*, but to me it seemed unabated. Through a hole in the roof of the hut we looked out and saw the ice covered with water as far as the shore, above which stood the city, so full of gaiety and feasting, and where friends were no doubt wondering at our unaccountable absence. But by the assertion of Christy we became assured that we should soon be at liberty, and be enabled to keep the engagements for the evening. With this we were obliged to be content, and prepared resignedly to wait for our freedom. Again we partook of fish and bread, some brandy, and quietly smoked our pipes. "Ce descend pas." I shortly afterward heard one of the men say, who had looked at the water below. "What's the matter?" I asked. "The water," he answered, "had gone down a couple of feet, and had there remained; there was still nearly two feet on the ice." We must stop here till to-morrow morning, or till help came. There was no use complaining; we had but to submit to cruel fate. The fishermen were in the same position as ourselves, and would, if they possibly could, have reached the shore. To wade through two feet of water for three-quarters of a mile, with the constant danger of falling into an air hole, was not to be thought of. Disconsolate and sick at heart, we turned over and tried to sleep, but that was banished from us. The evening came down in its dense darkness, and again we forced ourselves to eat, again the approaching tide was announced, and, oh! joy, the water did not rise in the *cabanne*. This was a good sign. The water would flow off the ice and we could leave by four o'clock in the morning. I will not attempt to say how long the hours were passing. No wonder Marie Antoinette's hair turned gray in a single night. I cannot conceive how it was mine did not. Then another trouble fell upon us, the fuel became exhausted, the fire extinguished, and the intense cold penetrated our very bones. I think were it not for the dingy light shed by the tallow dips I should have gone mad. To meet trouble in the daylight, or when one can see, is bad enough, but to be in its power in the darkness is too terrible. I thank these puny dips for my reason.

In our anxiety and apprehension we had let our watches run down, and but for the sagacity of Christy we should have had another grief. Our questions as to the hour must have tried the fisherman's patience. At last, at last, when hope was almost dead, the faithful, tried Christy proclaimed the joyful intelligence, "Messieurs, nous pourrions descendre." We needed no second bidding. We were quickly on the icy floor of the *cabanne*, and Christy opened the door. The moon shone



**CRAYFISH.**—There is no reason why greater attention should not be paid to growing crayfish. They could be raised in almost any of our small rivers or creeks. At present the crayfish comes to market from the Potomac, and principally from Milwaukee. If people only knew that crayfish are in good demand in the New York markets perhaps they would try to catch these delicate little crustaceans. The flesh of the crayfish is far more delicate than that of the lobster without being indigestible. Whoever has eaten a *potage bisque*, a soup made of crayfish, will never forget its excellence; and for a centre of a dinner table a pyramid of crayfish makes the handsomest of edible ornaments.

**SYSTEMATIC FISH COMMISSIONERS.**—The New Hampshire Fish Commissioners are preparing for their next report a full record of the number of ponds, acres of each kind of bottom, whether rock, sand or mud, and kind of fish found in them in every township in the State. By this means they are enabled to proceed intelligently in the distribution of fish to the waters suitable for each species.

## Natural History.

For Forest and Stream and Rod and Gun.

### DEER SHEDDING THEIR HORNS.

BY HON. J. D. OATON.

I HAVE observed several communications lately in **FOREST AND STREAM** discussing the question as to the time when the antlers of the deer are shed. Will you allow me a little say about it, as it is a subject which I have examined with some care.

All of our American species of deer cast their antlers irregularly from October to May, except our elk—the wapiti deer. He alone uniformly carries his antlers till spring, and casts them with great regularity in this latitude in April, or those with their first antlers, in May. There is this general law governing them all, that aged animals mature their antlers sooner, and cast them earlier than the younger specimens, the youngest being the most retarded. This law does not govern after the animal has attained full maturity, that is, the growth and maturity of the animal are not further accelerated after that time; and in some of this species there are frequently individual exceptions to the rule. Still it is general with all, except possibly with the wapiti—the time of shedding the antler does not necessarily depend on the time of its maturity. I have observed the greatest irregularity in the time of casting the antlers in the common deer, and this does not seem to depend on the condition of the animal, the character of their food, the temperature of the weather, nor indeed upon any assignable cause which I have been able to discover.

The time of casting the antlers of the common deer may be said to be from November to April, inclusive, but very much the largest proportion are cast in December and January. Some seasons nearly all seem to be carried till January and February, while in other seasons nearly all are gone by the first of January.

To illustrate the great irregularity in the time of casting the antler by the common deer, I may refer to the case related by me in *The Antelope and Deer of America*, pp. 181-2. There a four-year old deer cast his antlers in April, in 1869, and in November following he cast the antlers grown that year. In the first instance he carried his antlers the longest of any adult deer in this part, and in the next he cast them the first. In both cases the deer was in perfect health, and in very fine condition. I sought in vain for a solution of this remarkable contrast.

The observations of a few specimens, or of many specimens, for a single year, or even several years, cannot furnish information to be absolutely relied upon, and no matter how extended one's observations may have been, unless he is in the constant habit of noting down his observations at the time, he may not rely upon them with certainty. If he trusts to memory alone, no matter how retentive his memory may be, he is liable to be misled. Let any one take notes of events, and then after a considerable time write his observations from memory, and he will be astonished at his errors on comparing the result of his memory with his notes. You can do no greater service than by inducing sportsmen to make full notes, at the time, of everything interesting or unusual which they observe. If they would generally adopt this plan, they would soon accumulate a vast fund of very useful original information, and they would soon find a new enjoyment in the chase.

I see I have departed, in my conclusion, from my purpose when I commenced this article, but we are on a subject I have much at heart.

We take great pleasure in printing the above very interesting notes from Judge Caton's pen, the more so as we are quite sure that they will be new to the very great majority of our readers. Judge Caton has certainly the right to speak authoritatively on this subject, for none of our naturalists have given more time and care to the study of the very interesting group of which he writes. His remarks upon the necessity of noting down at once observations made in the field, is most timely and important, and it is but a short time since that, in an editorial, we urged the same thing upon all who are interested in natural history.

Judge Caton's remarks will, we are sure, interest all sportsmen, and not the least our friend Penobscot, who writes us from San Francisco, Cal., on the same subject, as follows:

The letters of "Antler" and "Sycamore," to your very interesting journal, were very important in one respect at least, as they bring out the fact that deer, in separate portions of the country, cast their antlers at widely different seasons of the year, a fact of which the vast majority of sportsmen must necessarily be ignorant, and proves (if any proof was wanting) the great value of a national sportsman's journal, like your own, circulating all over our common country, and affording a medium for the free interchange of views and facts from every portion of it. Before visiting this coast I had taken it for granted that the antlers of deer sprouted and were cast at the same seasons throughout the country, and was therefore much surprised, on visiting Woodward's gar-

dens, the first week in February, to see the bucks confined there still carrying their antlers, apparently as firmly set as ever, but was not sure it was not the result of captivity, and have since met with no one who appeared to be thoroughly posted as to the time in which they were shed when in their native wilds. Believing that facts as to the time in which they sprout and are cast in all parts of the country would be both interesting and instructive, I have written the following facts regarding the deer in my native State, hoping that in time we may hear from all parts of the country in which these interesting animals are found:

The antlers of the deer in Maine begin to grow the very first of April, but naturally very slowly at first, as the animal is then in very poor condition, and can hardly find sufficient food to sustain life. After the first of May, by which time the green herbage has well started, they grow very rapidly, and by the first week in July have attained their full dimensions, except as hereafter noted, and at this time they present a singular and imposing spectacle. The antlers are nearly twice their normal diameter, and at each point, as well as at the places where the prongs appear are oval-shaped protuberances, at least an inch and a half in diameter. The antlers now begin to harden at the butt, and soon circulation ceases, but the points and prongs still continue to grow by absorption of the egg-shaped ends, and form points more or less fine, according to the age and condition of the animal. By the 15th of August the antlers are hard throughout their entire length. Immediately after reaching this state, the velvet commences to peel off at the butt, gradually extending to the tips. This process is never hastened by the buck rubbing his antlers against trees, all reports to the contrary notwithstanding. A moment's reflection will convince any one of the futility of such a thing. The antler has now become a mere excrescence, devoid of all feeling, and whether covered with velvet or bare can be a matter of no moment to the carrier. The animal begins to attack the trees about the 1st of October, at the commencement of the rutting season, and a full month after the velvet has fallen off the antlers of those that inhabit my own State. If there are parts of the country where the velvet does not come off till October, then that period and the buck's tree-attacking fury will occur at the same time, and so give rise to a natural error. The rutting season is at its height about the middle of November, and does not entirely cease till nearly a month later. Nineteen-twentieths of all the bucks, except the yearlings, cast their antlers between the 20th of December and the 1st of January. These carry their "spike horns" a month longer.

I never saw a yearling buck without horns, and have repeatedly seen fawns with one, and sometimes two little antlers, from one to three inches in length. When this occurs he will have one prong the next year. No buck in the forests of Maine retires to any secret place to shed his antlers, or bruises them after being shed. I do not even know what is meant by a "secret place" in a forest. All parts are equally open, and equally secret to the still-hunter. As there is anywhere from two inches to two feet of snow on the ground in Maine and the Adirondacks, where the antlers are cast, any practices of that description would be detected, and if buried the marks would be "powerful plain," and as the antlers are never shed simultaneously, except through accident, the buck would be obliged to return and reopen his "cache" or make another one. And how would he proceed to cast them after arriving at the appointed place? By knocking them against a tree? One could as well imagine an elderman purposely pounding his pet corn against a bed-post. The buck's head is excessively tender at this period, where the antler joins it, and he carefully avoids, as far as possible, hitting it against the smallest obstruction. The buck, if undisturbed, lets his antlers severely alone, all they fall by their own weight; although if roused by dogs, or wounded by the still-hunter, he will frequently tear them both off in his mad flight, and more than once I have seen them fly ten feet asunder when shooting the animal through the head. The numbers which I have picked up during a twenty-years' hunting experience would comfortably fill an ordinary city bed-room, and they have been in all stages of preservation from those just cast from the animal I was following to those all devoured by mice. The popular idea which seems to obtain throughout the entire country, that the old bucks are defeated by the "spike horns" (as the yearlings are called at home), I totally dissent from. I have not only seen the marks on the snow of hundreds of combats between bucks, but have often killed one, and a few times both of the combatants, while thus engaged; but I never knew a yearling to even attack a full grown buck, much less defeat him, and would like to hear from the man who has.

In regard to the number of prongs, as indicating the age, not the slightest reliance can be placed on it, but an expert hunter can judge very nearly of the buck's age by the general appearance of the antlers. They increase in length, and the prongs in number each year till the animal is four or five years old, then they have attained their full length and beauty. After this they increase in diameter only, as long as the animal retains his full vigor, so that at eight years old the buck's antlers are nearly twice as heavy as at four; as age diminishes his powers, the antlers decrease in length, are much less symmetrical, and have coarser points. They also fall earlier, sometimes before the middle of December. The fall fawns lose their spots, to a superficial observer, about the last week in August, when they shed their summer coat, but a week in August, when they shed their summer coat, but a close inspection in a strong light will reveal a single row of very faint spots, extending the whole length of the body, just below the spine and on each side of it. These remain till the winter coat starts, the last of October; but they can easily be told all through the winter by the shortness of their heads in comparison to the length, by the greater length of the hair on each side, and by a general look of immaturity. A veteran still-hunter would consider himself insulted if told that he could not distinguish a fawn from a yearling at a single glance fifty paces distant, provided he saw its face. Of the two types of deer which are well known to exist in Maine, of several interesting peculiarities exhibited by those in the Adirondacks, not shown by those inhabiting the former State, space forbids me to speak. The subject is almost inexhaustible, and I may as well stop here, only adding that the above notes are the result of many years patient observation and successful still-hunting.

To the store of valuable information contained in the above papers, we may be permitted to add one note. In Nebraska the fawns of the common deer retain their spots considerably longer than as above related by Penobscot, and specimens killed the last of September are still strongly marked. At this time, however, the summer coat is fast falling off, and, no doubt, by the middle of October the young are uniform in color. Moreover, the faint row of spots on each side of the spine, of which our correspondent speaks, does not seem to

be confined altogether to the young deer, for the largest and finest buck we ever saw, which we killed this fall in Nebraska, has just such a row of spots running down the back. This state of things, however, is unusual, we think. We have never noticed it before, and it attracted our attention as soon as we reached the dead animal. We hope ere long to hear more on these interesting topics.

**THE KING PARTRIDGE.**—In an interesting communication to our columns under date of September 27, of upon the habits of the ruffed grouse, a new term, "King Partridge," is chosen to express exceptional peculiarities of habits on the part of the male bird. The language of the article is likely to lead to misconstructions, not warranted by actual facts observed as to the habits of this species. The term of king partridge would seem to imply an isolated occurrence of a patriarch of the tribe, which may not occur in the lapse of many years. Under this supposition a hunter may spend the half of his life in pursuit of this bird, and never obtain a glimpse even of such a remarkable superannuated male, who is entitled to take rank as a king partridge. The account, as given in the communication, ceases, however, to excite unusual surprise when analogous cases, in the order of gallinaceous birds, are taken into consideration. The entirely different aspect of our barn-yard turkey when his temper becomes ruffled, from his general appearance in his usual mood, are well known to all who have amused themselves by exciting the anger of an old gobbler. His attitude offers many points of resemblance to those observed by our correspondent when speaking of the king partridge. All of the feathers, particularly those of the back, become almost perpendicular. The primaries of the wings are sharply separated, and trail in angry sweep the ground. The tail becomes a perfect pattern of a fan, and neck and head are deeply suffused by the quick rush of blood surging toward the upper extremities of the offended lord of the barnyard. If he only possessed the ring-like ruff of feathers like his wild relative, the ruffed grouse, a perfect crown, or ring, would quickly develop itself around his well drawn in head, and a magnificent edition of the king partridge, a veritable king turkey, would be the final result. We may view at ease, and as often as we please, this interesting spectacle in our domesticated tribes; but we experience difficulties when we wish to extend our observations to the wild members of this order of birds. They are only too much an object of pursuit on part of the indefatigable sportsman and their countless natural enemies, to indulge in these antics, which mostly result from sexual excitement and jealousies toward rivals of their own persuasion. Since an audience is not wanted on account of its being intrusive, the dramatic displays are limited, and probably only enacted under extremely rare combinations of favorable circumstances, when no observer is near. We know on the authority of Gould that the black cock of Europe is addicted to like habits, and that the entertainment in the case of that bird is frequently enhanced by drawn battles, in which a number of excited males engage to gain undisputed supremacy over the females of the vicinity, who are said to be then often silent spectators of these conflicts. It is possible that the ruffed grouse would act in the same way under such circumstances, and by the erection of all the erectable appendages give rise to the singular appearance which led your correspondent to the adoption of such a singular name. But few observers would ever be gratified by an opportunity to watch this most shy of all game birds in its fancied security, and the full display of its handsome ornamentations in order to render himself formidable to its competitors in the struggle for possession of the female.

The pairing season would thus be inaugurated by the advent of the king, the oldest and most excitable cock, who gains at last a well-earned victory over all the rest of the aspirants in these erotic tournaments. The widely varying attitudes of the bird while drumming or standing perfectly erect, when wishing to evade observation on the knotted limb of the hemlock tree afford full evidence of its aimful powers, which are reaching their climax when laboring under periodical sexual excitement, and cause thus an apparent entire transfiguration of its smooth appearance when ready to fly on approach of danger.

### HABITS OF THE RUFFED GROUSE.

TESTIMONY OF A VETERAN.  
ST. JOSEPH, Mich., Dec. 17, 1871.

EDITOR FOREST AND STREAM:

As much of the sportsman's pleasure follows from reflections of incidents which occur on a day's hunt in the field or forest, so does a large share of our enjoyment come from detailed rehearsals of duos as they gather in social chat over events and occurrences that have passed during the day. The spicy account of this and that—this chance was so—if it had or had not been for such—I should—and how I missed that good, or fair, shot I don't see.

Many of these chats give zest to the recreations of sportsmen from the busy cares of life. This is one reason why I look so anxiously for your **FOREST AND STREAM** weekly, and on this account it has become a sportsman's necessity. One seems to meet with brother sportsmen from north to south, east to west, and enter into a sportsman's paradise.

Every one has something of interest to relate. Each gives his own views, in his own way, his own explanation, theory and philosophy. Much of the natural history is quite entertaining, with much that is equally ridiculous. But still it prompts one to thought and closer observation. While I confess I am much interested in articles of many correspondents of the **FOREST AND STREAM**, many things excite my risibles, look quite fishy, and are as ridiculous as some of the questions asked the Editor.

Some time ago we had an account and description of the "King Partridge." I am just past my sixty-seventh year, always loved the rod and gun, have spent many enjoyable days in their use, a great lover of Na-

ture, can sit in some secluded dell, or by some rippling stream to watch animal and insect life of all forms on earth, air or water; study their habits, and have discovered many wonderful things, but it has not fallen to my good fortune to see a "King partridge!" My greatest desire now is to see one, and then "depart."

But I have led off from my first intention in writing, which was suggested by a correspondent of Ferrisburgh, Vt., on the ruffed grouse. He starts off—whizz—bang—gone out of sight like an arrow, Mr. Grouse! Well, that is much my experience. Quite often, at least, I am fully of his mind, "they are not easily killed," and if hit, the hardest bird to bring to bag I know of.

Two this fall I will mention: Out with H. hunting pheasants, a bird flushed on a side hill, and when clearing the top through the brush, I got in a shot, and right after, H. one. We could see that each hit the bird, and supposed it fell, but on search, it could not be found. Giving up the search, we passed on thirty or forty rods, and began to hunt another ravine. Part way down my dog came to point; we came up and found the bird dead and warm. After that we were out, separated by at least 200 yards, each in a ravine. If shot at a bird, and, at the report of his gun, I turned and looked, and in a short time saw a pheasant come over into my ravine and fall dead. When plucked of its feathers, it was found to have been hit with eleven No. 6 shot, and still this bird flew, apparently well and strong, till it dropped dead. I pronounce them the hardest of all birds, even when hit, to kill, and would always advise to follow on with your dog, even if there is no sign of hitting them.

The habit of the pheasants, when they break the coveys in October, to scatter to ravines and thickets, through fields and even into towns, is, I think, common and universal. It has always been my observation. Early in the morning, from daylight till after sunrise, you may often find them near houses, in the garden bushes or near shrubbery. Every fall, in our little village (8,000) many are killed, and occasionally one flies through a window or against a white painted house, and is killed in no doing. Much is said about the manner of producing sound in drumming. Let any one fill the air sac under the wings, and they will find an easy solution of the matter in the manner the bird strikes its body with its wings.

I would like an opinion of those who call themselves good wing shots giving the average number of shots to get one bird. The opinion of our boys is, in general shooting, four shots to one bird killed—that is, good and average shooters. There are those who do much better than this. I have been out since these conversations, and have kept a little data: On a two days' hunt I made thirty-five shots, killed six little birds; and crippled two, which, I have no doubt, died; and out two days ago, shot at four birds, and got three. These were my best this fall. Last fall I made twelve shots one day, and got five quail, five pheasants—all at single birds—and one rabbit; many, many times much worse. I make poor shooting some days. But you will see, Mr. Editor, that sixty-seven years have dimmed my eyes, for I am travelling on the sixty-eight road.

LUTRON.

STAFFORD, Ont., Dec. 8, 1877.

EDITOR FOREST AND STREAM:

There have been a good many grouse about this fall, and having been in the woods a good deal, I have had some opportunity to study them. Frank Forester says that they seem to hang heavily at first in the air, but I think that had he hunted them around here, he would have changed the reading of that clause, at least. I have never seen them hang long enough to shoot at, and in most instances, to be seen, for, when flushed, they start as if shot from a canon; and it takes a quick eye, and still quicker aim, to shoot them with any degree of success. A good bag of ruffed grouse is a thing any sportsman may well be proud of, as it shows skill in shooting, and a considerable amount of patience and perseverance in struggling through the thickets, where they are generally found. As "Avalawsoose" says, they are not the most easily killed birds in existence. Once, while shooting this fall, I started two from a small cedar thicket, and as they had to cross an open space to gain the main woods, I had a fair, open shot at them for about fifteen or twenty yards. When I fired I had the satisfaction of seeing one of them drop in the brush, but upon putting in another cartridge and walking up to the place, my bird was nowhere to be seen. I searched for some time, and was about giving up the hunt, when a friend who was shooting with me, came up with his dog, and then I set Juno, with her keen nose, to find what I could not. After hunting for a minute or two, she found the spot where the bird struck when it dropped, and on trailing it up, I found my bird hid away under some brush fully 100 yards from where it had fallen—not then dead, but nearly so, as it died in my hand within a minute after finding. I marked this bird, and when plucking it in the evening, found that no less than seven No. 5 shot had struck it, two of which had passed through the lungs from side to side. Like "Avalawsoose," I have never seen or even heard of a king partridge, although I have had considerable experience with grouse. Penobscot's article in your paper was the first intimation I had that such a thing existed, and on inquiry among some old woodsmen, I cannot find any who have ever heard of such a thing, much less seen one.

The habit of the ruffed grouse in leaving its usual haunts does not seem to be peculiar to one place only, as I have repeatedly observed the same thing here. Last fall, while sauntering up the river looking for a stray duck or snipe, I flushed a grouse from a small bunch of willows near the water, and had the luck to get him, although I was not expecting such game. There was no other bush or trees of any kind near, and the nearest cover, when any of them were to be found, was a full mile and a half away. This was late in the fall, and all the leaves had been down some time, so that theory will not hold good in this instance. It could not have been want of water, as there was a stream running through the cover where the birds were to be found. Another instance: Late in the season, after the first fall of snow, a gentleman living in town happened to be on the lawn in front of the house, when his little son called his attention to two birds under one of the spruce trees with which it was adorned. Upon investigation they proved to be the ruffed grouse, which had thus ventured so near civilization, and were fully two miles away from their usual haunts. They stayed for two days, but on the third morning turned up missing. While in Meskoeka last fall I frequently saw them shot in a clump of larch that had been left near a spring on the farm of a settler. Certainly, the woods were only a short distance away, but water was plentiful in them, so why did they resort to the small clump of trees, not covering the twenty-fifth part of an acre?

About their drumming: I can testify with "Penobscot" and "Avalawsoose" that they will stand on a rock to drum, as I have seen them do so; also on a stump and, once or twice, on a tree that had not long been felled. But there is one curious point that I would like to ask some older shooter than myself—What causes them to drum during the night time in the fall, or do they do so in the spring also? This fall, while duck shooting on the Au Sable River, we camped in a thick piece of pine and oak woods near the river, and several times during the night while there, I heard the grouse drumming in our vicinity. We went after them several times, and in every case where I got any, I found them to be solitary birds, and, in every instance, cocks. I did not see a hen bird killed, although a good many birds were shot. Perhaps "Penobscot" can explain this point.

About shooting them from a tree: I saw a man shooting near here about two years ago, who had a small terrier dog with him. On first going into the woods the dog flushed a covey of them, and all the birds flew a short distance into a hemlock tree. The man went up, and, standing in the shelter of a small bush which hid him from them, began

by shooting the lowest. As he had only a single-barrelled gun, he lost considerable time, but, nevertheless, managed to secure seven of them before the rest were frightened, and sought safety in flight. I have since killed four myself in a similar manner, and when shooting one, the rest did not seem at all disturbed. I do not see anything unsportsman-like in shooting them on a tree. As they are so shy and hard to hit that I kill them any way I can that is, lawful; and I would advise all sportsmen to do the same when they get a chance. More anon.

AU SABLE.

The Drumming.

NORTHERN NEW YORK, Dec. 24, 1877.

EDITOR FOREST AND STREAM:

Although the above topic has been discussed at length in your columns, it seems by no means settled to the satisfaction of all. So please permit me to tell what I have seen and heard.

For a number of years, from the age of fourteen to twenty, I lived on the border of our great Southern (to you Northern) wilderness, where a part of my time was spent in hunting and trapping. During that time and since I have seen a good many grouse in the act of drumming, and in some respects my experience will differ from that of others. In the first place I never saw a female with or near the male bird at such times, and I have often hunted the ground over thoroughly for a considerable distance around. The male commences drumming just as soon as the snow is off the tops of the logs and hillocks. At this time, an hour or so about sunrise is the usual extent of time occupied. Later, and at the time the hen is sitting, he drums almost constantly, taking only three or four short feeding spells during the day, and if the night be fine and moonlight, if you chance to be camping out, you will hear him at intervals during that time. As summer approaches the drumming grows less and less and finally ceases till colder weather in the fall, when snow birds drum, though probably not all, as one hears but little as compared with spring time.

As to the hollow log I never saw one drum on the ground, though I have seen them on moss-covered rocks as well as logs. The latter, however, covered with moss and situated in a thicket seem to be the favorite places. The reason I think is this, instinct teaches Mr. Grouse that his noise may attract the attention of his natural enemies, foxes, hawks and owls, to say nothing of the boy with his twenty stilling shot-gun. In the open he is exposed to all these. In the thicket, from his elevated standpoint on log or rock he is comparatively safe, as hawks cannot pounce upon him, nor fox or boy approach him unawares. If not disturbed too often he will usually stick to one log the entire season, and the same log is often occupied for a number of years, though whether by the same bird or not I cannot say. Now the act itself. I recollect one particular instance. A few years ago, in the month of May, I was at a pond in the depth of the wilderness trout fishing. Close by the camp was quite a hill that came down close to the water, the side of which was rough and broken, with rock and ravine and somewhere up its side was a partridge drumming. One morning I started out to find it. This was done by going slowly and stopping from time to time to listen. At length when well up the side hill and at the edge of a little windfall a few rods in extent, partly filled with second growth, I paused close to the roots of a large spruce that had fallen. The roots, covered with earth, completely hid me from all beyond. I did not have to walk long to locate my bird. It was so near as to almost startle me. Changing my position a very little I could look through between the roots of the tree, and there sat Mr. Grouse within fifteen feet of me. I stood and watched it drum a dozen times or more before a slight noise on my part attracted its attention. It sat up straight, just as a hawk or eagle does upon a limb, turned its head with a quick tearing motion right and left two or three times, and then seemed to draw its head down close to its body, half closing the eyes. Then commenced the motion of the wings. These were raised or spread but very little and brought back or struck against the side with a quick, light blow three or four times, with a moment's interval between blows, when suddenly it changed to a harder blow with the wings extended further, say half open, and after the first half dozen strokes the motion is too rapid for the eye to follow, but growing less in strength, till it stops with a sudden whirr. It would now stretch up its neck and look around right and left as if on the lookout for enemies. Sometimes it would not change its position any more than this, but in a few moments it would walk up and down the log for a few feet, but always in a natural manner, looking about as if its only object was to guard against surprise. I have seen the male of the spruce partridge drop its wings and strut about with all the importance of a one leg gobbler, but have never seen the ruffed grouse do so. As to the production of the noise made in drumming I always supposed it was caused by the striking of the wings against the body. I have watched a good many, but never was so near another. I have watched some till they left the log and have then observed them feeding alone. At this season, May, I have often seen the female from sunset till dusk, when I take to be her time of getting food when sitting. The first chance I have I will find out if possible about the air pouch your correspondent "Monon" tells about. I never heard of it before.

LADOC.

THE WOODPECKER AS A FLYCATCHER.—In a late number of Harper's Magazine I noticed an item concerning the catching of flies by the common red-headed woodpecker. Reading this recalled a fact that came under my own observation, which I will proceed to relate: In the summer of 1863 I was living in a small town in middle Alabama, not far from Selma. In one corner of the yard there stood an old china tree, the top of which had been shattered by a storm. At the time of which I write, a pair of red-heads were engaged in rearing a brood in a hole which they had excavated in the old tree-top. This tree was the only one in a decaying condition within a radius of at least one-fourth of a mile; and from lack of his accustomed food the red-head was forced to resort to a diet of flies. At least this is the way in which I accounted for what I thought a departure from the traditions of his ancestors. The bird assigned to duty as catcher took a position on the twisted lightning rod of the house, and from this point of vantage darted with unerring aim upon his winged prey, taking them always in mid-air, after the manner of all flycatchers. I remember to have thought this very singular, not having seen any mention of it in such works of ornithology as I had read, but allowed it to pass from my mind until the paragraph in Harper's recalled it to memory.

WILL.

QUAIL WITHHOLDING SCENT.—A correspondent in Mahoningtown, Pa., states that he has noted several undoubted instances of quail withholding their scent. Among others was that of a wing-tipped bird, which the dogs failed to find, though they ranged all the ground over thoroughly. Subsequently returning to the same spot the bird was found. The writer concludes:

That under certain conditions of the atmosphere a quail alighting on the ground, and not moving from the spot it first

alights upon, does not give out enough scent to enable a dog to smell it. Of course one must bear in mind that when a quail is not in motion its feathers are always pressed tightly and compactly to its body, which in a great measure tends to withhold its scent.

A LARGE HERONRY.—Our friend Dr. T. Garlick, writing from Ohio, tells us of a nesting-place of the Blue Heron in the olden time. He says:—

"The last number of FOREST AND STREAM has an article on the nesting-place of the Wood Ibis, which reminded me of a breeding-place of the Blue Heron (*Ardea herodias*, Linn.) that I went fifty miles once to see. It was in the midst of a wilderness, covering from twelve to fifteen miles square, a region of flat land, filled with many small swamps, inhabited by myriads of frogs and lizards.

"The forest was mainly timbered with swamp oak, the trees being of immense size. The woods were literally alive with these birds. I counted on one tree thirteen nests; there were hundreds, if not thousands, of nests. I was amused to see a number of unfledged birds, out of their nests, walking through their long, still-like legs, on the limbs of the trees. One fellow made a misstep, and lost his balance, but hung by one foot, and finally got his long neck over the limb; whether he ever righted himself I do not know; I left him "doing his level best" to get back. I could not help him, for he was nearly a hundred feet high.

"This nesting-place was in the township of Richmond, Ash-tabula County, O., now a thickly settled country. Since my recollection that region was full of game, elk and deer in abundance."

PROPAGATION OF THE EEL.—Owing to the obscurity that exists respecting the propagation of the eel, the following statement made by Herr L. Griesinger, of Murrhardt, to the Schw Institution, may be of interest. Herr Griesinger writes: "On Saturday, August 12 last, some workmen who were preparing the foundation for a railway bridge over the Murr, observed an eel in the still water of a channel, a quarter of a mile below the town. The men had hammers with them for stone-breaking, and, wishing to kill the eel by a blow on the head, one of them hit it, but only in the middle of the body, which was greatly lacerated. Owing, however, to the toughness of the skin, the parts held together. It was an ordinary full-grown eel, but unusually stout. I bought it and set about skinning it in my kitchen, an operation that necessitated a strong pull from head to tail. At that part of the body which had received the blow, a total separation took place, and at the same moment there fell out upon the table an animated bag or ball about the size of a walnut, from which there escaped a number of active young eels. In circumference they were of the dimensions of a large knitting needle and as long as a man's finger. They lived for an hour, during which time they wriggled about on their sides. The parent eel seems to have quitted the rapid water of the Murr for the still water of the channel to deposit her young.—S. in Land and Water.

AN INTERESTING SNAKE STORY.—"Snake eating snake" is no imaginary story. I can add my own evidence in substantiation of the fact. Several years ago, when weeding corn in my Pugh Island, in the county of Northampton, N. C., I discovered a very large king snake lying on a ditch bank, perfectly straight, and unusually large. I called the attention of my servants to the snake, and directed that no snake of that species should be killed on my land, as they were said to be the special enemy of all venomous reptiles, particularly the highland moccasin. By the by, I had been bitten by a moccasin, and, barely escaping with my life, my sympathy was quite reasonably excited in behalf of my enemy. My servants promised obedience. I took from the hands of one of them a weeding hoe, and attempted to wake the snake by chipping off a part of his tail. The operation was quite artistically performed. The snake, however, did not relish it, and immediately began to disgorge a large highland moccasin, recognized by us as the most venomous of all found in this section of the State. The Hon. J. J. Davis, the present representative in Congress from the adjoining district, gave me a history of a similar occurrence which he himself witnessed. Stopping at a branch to water his horse, while on his way to one of his courts, he discovered the tail of a small king snake firmly fastened around a twig, the body immersed in the stream, and he holding fast to a large water moccasin, double his size, which was struggling heroically for his life. The contest continued for some minutes, the moccasin drawing the king snake under the water, and in turn the king snake drawing the moccasin to the surface. The victory finally resulted in favor of the little king snake, and the Hon. Mr. Davis remained a passive spectator during the whole struggle. I think he stated that after the termination of the affair he pulled them both ashore. The king snake is not the black snake, or black runner. He grows to a much larger size, and is black, with white rings around the entire body. I really do not know whether or not he is venomous. The black snake is certainly not, though by quick rattling of his tail, and rapid ejacutions of his tongue and apparent preparation for the fight, he would make a very different impression upon one.

T. G. T., Gaston.

PHILOSOPHICAL SOCIETY OF WASHINGTON, December 23.—Mr. Theodore Gill made a communication on a new species of chimera found in American waters. One of the most unexpected discoveries recently made in American ichthyology is that of a species of the genus Chimera, of which a specimen has lately been sent to the Smithsonian Institution. It was caught southeast of the La Hava bank, in lat. 42 deg. 40 min. north, long. 63 deg. 23 min. west, at a depth of 350 fathoms, with a bait of halibut, and sent to the Institution by Captain Robert L. Hurlbut. An attentive comparison of the specimen with individuals of the European *Chimera monstrosa*, renders it evident that it does not belong to that species, but is an entirely distinct specific form. It may be named *Chimera plumbea*, and diagnosed as follows: *Chimera Plumbea*.—A Chimera with the snout acutely produced; the antero-orbital flexure of the suborbital line extending little above the level of the inferior margin of the orbit; the dorsals close together; the dorsal spine, with its anterior surface rounded; the ventrals triangular and pointed; the pectorals extending to the outer axil of the ventrals; and the color uniformly plumbeous. By these characters the species is readily separable from the *Chimera monstrosa* and other species of the genus.

A BEZOAR STONE.—A beautiful Bezoar stone has been sent Professor Holmes for examination. The father of Rev. John W. Lemacks, of Walterboro', obtained it about seventy years

ago from the stomach or viscera of a Carolina deer (*Cervus virginianus*), and it has been retained ever since as an heirloom in the family. The stone is about two inches in length and in diameter at the middle. In form it is not unlike an elongated egg, somewhat pointed at each end (a prolate spheroid). The surface-coating of phosphate of lime is highly polished, and of a mottled brown color. In the presence of a party of gentlemen at "Ingleside" the stone was carefully cut a few days since, and, as was expected, a hard substance found in its centre, which proved to be a pebble of quartz.

The nucleus is covered with a deposit of phosphate of lime in fine annual layers, showing a growth of at least that number of years.

This is the fifth Bezoar or Persian medicine stone examined by Professor Holmes. The first contained a flattened ball, or buckshot, of lead; the second, a quartz pebble; the third and fourth each an acorn, and the fifth a pebble like the second. The buckshot specimen was destroyed during the war, when Professor Holmes' library was burned, but the others are at present at Ingleside, and form, perhaps, the most remarkable collection of the kind known. A description of the buckshot specimen, with colored figures, was published many years ago in the *Charleston Medical Journal*, and copies in photograph have been lately made of it.

Ingleside, the country seat of Professor Holmes, contains just now not only these rare Bezoars, but one of the most unique collections of the abnormal forms of antlers of the Carolina deer we know of; the main hall, library and cabinet walls are hung with about two hundred specimens, which are greatly admired, not only by sportsmen and naturalists, but excite the wonder of many Northern tourists who visit annually these ancient "baronial halls of Goosecreek."—*Ex.*

**VITALITY OF ANTS.**—A number of curious observations have been made by the Rev. H. C. McCook on the endurance by ants of extremes of heat and cold, and the results have been published in the proceedings of the Philadelphia Academy. This year a formicary of *F. pennsylvanica* was cut from an oak bough, and exposed out of doors to the rigor of a mountain winter, and survived. A number were dropped separately upon ice, and were found alive after forty-eight hours, each in a little depression. *F. rufa* was found active in its formicary at 34 deg. F., sluggish at 30 deg. The extreme of heat seemed also to be endured by *F. pennsylvanica*; they did not suffer at all from the heat of stones walling in a camp fire, having been driven into the position out of a burning stump. A community of agricultural ants (*M. molefucens*), lived in a mound upon which some smiths in Texas made their fires for heating wagon tires. Numbers of ants were seen at work by Dr. Linecum cleaning out the entrance to their city before the entire extinction of the fire just used for heating tires. They had learned all about the fire and knew how to work in and around the dying embers without injury. A quality of mason ants (a variety of *F. rufa*), observed by Mr. McCook, were accidentally flooded under five inches of water, and they appeared quite dead and floated about in this condition for many hours; but subsequently most of them recovered full activity. In Texas Mr. Linecum found that the agricultural ants are seen in great numbers in wells, forming a sort of floating mass as large as an orange, clinging together. In this condition they got drawn up in the bucket, and though they may have been in the water a day or two, they were all found alive. Yet individuals cannot survive under water more than six minutes, and life in these balls can only be preserved by the mass revolving either by the continued struggle of the individual insect, or by an instinctive and orderly movement of the outer tier of ants.

**ANOTHER FOX WITH A WHITE FOOT.**—In a recent issue of *FOREST AND STREAM* I see an account of a red fox with white hind feet. He is not the only one, as I shot a large dog fox to-day ahead of my hounds whose hind legs were snow white to the gambrel joint.

**A WILD HOG—ONE-EYED AND EARLESS.**—The Pittsburg (Pa.) *Standard* of a recent date describes a new monster whose aspect would have terrified that valiant traveler, Sir John Mandeville himself:

"A few days since Mr. W. Miller of Uniontown, who, like Nimrod of old, is a mighty hunter, and keeps a pack of fifteen hounds, captured an earless wild hog in the mountains of Fayette county. The animal not only has no auricular appendages, but no orifice in the head for the admission of sound, and is in consequence totally deaf. It has also but one eye, which, however, is large enough for two, being nearly two inches in diameter. The animal will weigh about 160 pounds, and is as ferocious as a bear. Mr. Miller will send it to the zoological garden in Philadelphia. Mr. Miller is a noted deer hunter, who follows his game on an Indian pony. He lately killed four deer on one excursion."

**ARRIVALS RECEIVED AT THE CENTRAL PARK MENAGERIE FOR THE WEEK ENDING JAN. 13, 1878.**—Seven Guinea baboons, *Cynocephalus sphinx*; one Patas monkey, *Ceropithecus ruber*; three Polar bears, *Ursus maritimus*; one axis deer, *Cervus axis*; one hog deer, *Cervus pimeus*; two Indian antelope, *Antelope cervicapra*; one mottled owl, *Scops asio* pres. n. ed. by Mr. E. R. McCarty, New York City; one horned owl, *Bubo virginianus*, presented by Mr. Ed. Martaga, New York City. W. A. CONKLIN, Director.

**INDIA-RUBBER SPORTING GOODS.**—Such articles which induce to the comfort and health of the sportsman are numerous. These are fishing stockings, pants, boots, clothing, gun covers and blankets, all made of rubber. If the outer man manages to weather wind, sleet and rain in water-proof clothing, the inner man finds comfort in drinking-cups and canteens made of rubber. Messrs. D. Hodgman & Co., of 27 Maiden Lane, corner of Nassau street, keep a full assortment of these most useful goods, and we can recommend these gentlemen and the articles they sell to the attention of our many readers. Messrs. Hodgman & Co. are also the leading people for the sale of rubber foot-balls, supplying most of the colleges with their balls.

## Woodland, Farm and Garden.

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, SEC. N. Y. HORTICULTURAL SOCIETY.

### GRINDELIA ROBUSTA AS A REMEDY FOR IVY POISONING.

IN a recent number of "New Remedies," published by Wm. Wood & Co., of New York City, I find an article copied from the *Scientific American* upon the use of *Grindelia robusta* as a remedy for oak and ivy poisoning, and as it is of special interest, particularly to your Western sporting friends, I have ventured to transcribe it, or at least the most interesting portion thereof. James G. Steele, of San Francisco, writes to the *Scientific American* that the *Rhus toxicodendron* is a very common cause of a great deal of misery and suffering in California, and contributes a paper on the properties of *Grindelia robusta* as a remedy, from which the following is taken: "Dr. L. A. Canfield (deceased), of Monterey, Cal., was the first," so Mr. Steele says, "to call the attention of the medical profession to the therapeutic action of *Grindelia robusta* in cases of 'oak poisoning.' Some twelve years since he caused to be published in the *Pacific Medical and Surgical Journal* a short account of this plant—its botanical features, habit and medicinal value. My attention being thus directed to the plant, I procured specimens and prepared various pharmaceutical compounds containing the virtues of the drug, which were prescribed by the medical faculty of this city with sufficient success to warrant me in keeping a bountiful supply of the plant. It has been my practice yearly, during the months of May and June, to go into the rural districts and have gathered and dried in the shade one or two tons of *Grindelia robusta*." Here follows description of the manner of preparing the fluid extract, which is to be used as follows: "For poison oak eruptions, the best method is to mix one or two teaspoonfuls of the strong fluid extract of *Grindelia* with half a tumbler of cold or tepid water and apply freely, with a sponge or cloths dipped in the mixture, to the parts affected. One or two applications will often suffice for a cure; but if the disease has been of long duration, several days may elapse before entire relief is obtained. In severe cases of poisoning, cloths dipped in the solution may be bound upon the parts, and, if necessary, more of the fluid extract added. The most obstinate case of poisoning will be overcome by this mode of treatment, and immediately after the first application the most surprising relief is experienced. Another medicinal use has been found for *Grindelia* and its preparations. Asthma and kindred ailments have been made to succumb in a remarkable manner." Wishing to know something more of this plant, I wrote to my friend, Prof. J. T. Rothrock, of the University of Pennsylvania, whose knowledge of the medicinal flora of our country is excelled by none, and the following is his reply:

My Dear Doctor—*Grindelia robusta* is one of the composites found very commonly in the open grounds of California, as, for example, the place where we camped during our field work of 1875, near Santa Barbara, California. It is abundantly covered with a gummy exudation. The leaves are thick and the whole plant has a harsh, rigid appearance. It has been reported to be of value in asthma, and also in poisoning from the California poison oak, a species related to our own. I am not aware that it has been tried as a remedy for our own poison oak, though if of value in the one it would probably be also in the other. Local use of the fluid extract of serpentina is, in my hands, a never-failing remedy for our own poison oak (see *Hartshorne's Essentials of Practical Medicine*) from which I learned its use.

Ever yours,

J. T. ROTHROCK.

In view of the facts above stated, I trust no apology will be needed for inflicting upon your readers this notice, as many of our sportsmen, owing to a peculiar susceptibility to vegetable poisoning are entirely debarred from following their favorite pursuits. In this connection I may mention that I have no less than three botanical friends who have never suffered from the poison oak, notwithstanding the experiment has been frequently made of rubbing the hands, neck and face with the leaves and other parts of this plant. Here the old adage comes in—"One man's meat is another man's poison." Very truly yours,

H. C. YARBROW, M. D.

**TO CLEAN BUCKSKIN GLOVES.**—Take half a pound of prepared chalk, half a pound of prepared alum, three cakes of pipeclay, half an ounce of oxalic acid, one-half ounce isinglass, one ounce pumice stone powdered, one tablespoonful of starch, six tablespoonfuls of sweet oil, two ounces of white soap. To be mixed in boiling water: the oxalic acid and prepared alum to be added last.

—The pineapple trade with the Bermudas has assumed great importance. During the shipping season just closed about 130 cargoes of pineapples were shipped to New York, Philadelphia and Baltimore. Ninety voyages were made by American vessels in the conveyance of this fruit to the United States. The freight earnings of these vessels is computed at \$100,000, and the amount realized by the sale of the cargoes was spent in the purchase of American goods for return cargoes.

**FLOWERS FOR HOME DECORATION.**—Set flowers on your table—a whole nosegay if you can get it; but two or three, or a single flower—a rose, a pink, a daisy. Bring a few daisies or buttercups from your last field work, and keep them alive in a little water; preserve but a bunch of clover, or a handful of flowering grass—one of the most elegant of nature's productions—and you have something on your table that reminds you of God's creation, and gives you a link with the preets that have done it most honor. Put a rose, or a lily, or a violet on your table, and you and Lord Bacon have a custom in common, for this great and wise man was in the

habit of having flowers in season set upon his table, we believe, morning, noon, and night—that is to say, at all meals, seeing that they were growing all day. Now here is a fashion that will last you forever, if you please—never change, with silks, and velvets, and silver forks, nor be dependent on caprice, or some fine gentleman or lady who have nothing but caprice and changes to give them importance and a sensation. Flowers on the morning table are especially suited to them. They look like the happy wakening of creation; they bring the breath of nature into your room; they seem the very representative and embodiment of the very smile of your home, the graces of good morrow. LEIGH HUNT.

**PUTTING FOR TREES.**—In pruning large limbs some composition should always be at hand to cover the wound. This will not only prevent its cracking by the cold in winter pruning, but will keep out the air and maintain the exposed wood in a sound state until it is covered with a new layer of bark. Many compositions have been in fashion abroad for this purpose, which under our summer sun and wintry frosts are nearly worthless, as they generally crack and fall off in a single year. The following is a cheap and admirable application which we recommend to all cultivators of fruit trees: Take a quart of alcohol and dissolve in it as much gum shellac as will make a liquid of the consistence of paint. Apply this to the wound with a common painter's brush, always paring the wound smoothly first. The liquid becomes perfectly hard, adheres closely, excludes the air perfectly, and is affected by no changes of weather; while at the same time its thinness offers no resistance to the lip of the new bark that closes over the wound. If the composition is kept in a well-corked bottle, sufficiently wide to admit the brush, it will always be ready for use, and suited to the want of the moment.—*Downing's Encyclopaedia.*

—It is said that the French Government is about to take measures for the irrigation of the broad and fertile valley of the Rhone by means of the waters of that river. While there has not been recently any serious damage to crops in this region through drought, it cannot be doubted that the proposed step is a wise one, and will be productive of immense benefit to a large tract of country.

**A SIMPLE ORNAMENT.**—A pretty mantel-piece ornament may be obtained by suspending an acorn by a piece of thread tied around it, within half an inch of the surface of some water contained in a vase, tumbler, or saucer, and allowing it to remain undisturbed for several weeks. It will soon burst open, and small roots will seek the water; a straight and tapering stem, with beautiful glossy green leaves will shoot upward, and presents a very pleasing appearance. Chestnut trees may be grown in the same manner, but their leaves are not as beautiful as those of the oak. The water should be changed once a month, taking care to supply water of the same warmth; bits of charcoal added to it will prevent the water from souring. If the little leaves turn yellow, add one drop of ammonia into the utensil which holds the water, and they will renew their luxuriance.

—The manufacturers of Peerless Fine Cut present every customer of a ten-pound pair with a splendid seven shooter. As tramps are getting so bold now-a-days, this seems to be an opportunity to procure means of defence, and getting one's tobacco at the usual cost.

## The Kennel.

**TO CORRESPONDENTS.**—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the same. Also give any peculiarities of temperament, movements, etc., that may be noticed signs of suffering, etc.

**THE ST. LOUIS BENCH SHOW.**—Everything points in the direction of an immense success for the St. Louis show. As we go to press we have received the following despatch from J. W. Munson, Esq., the secretary: "Thanking friends for their liberality, we must decline any more donations. Our specials already amount to nearly three thousand dollars, and we really have no places for more." Some of the gifts presented to the show are of the finest character. Mr. W. W. Greener, through the Simmons Hardware Co. of St. Louis, has just sent as a prize a superb forty-guinea gun, made in his very best style. That would be a gun to win. Mr. T. H. Scott has sent £10 sterling as a prize for the best setter, any age or strain, bred in America. This gentleman promises to be present at the show. Mr. Snellenberg, of New Brighton, Pa., gives a \$40 velvet shooting suit, for the best pair of pure Laveracks. Tiffany & Co. have presented a silver vase, valued at \$75 for the best setter, and Messrs. W. Read & Sons, of Boston, a Scott double express rifle.

Entry blanks of the St. Louis Bench Show may be had at our office which we will mail to applicants. Particular attention has been paid to the stalls for the dogs, which will be built in sections of five. In the centre of the rink a large space will be reserved for moving the dogs, and for the use of the judges. Many of the leading New York houses dealing in sportsmen's goods will have exhibits. The headquarters of the show will be at the Lindell House. We would call attention to the following: The A. & G. W. R. R. will give half fares to exhibitors from Saluana or any other point on the line, to St. Louis and back, with passes for dogs. Every railroad entering St. Louis gives half fare, and the express companies half rates. If energy and perseverance make this

show a success—which it certainly will be—it will be in great part due to the untiring exertions of the secretary, Jno. W. Munson, Esq.

**ST. LOUIS BENCH SHOW.**—Mr. Lincoln, Superintendent of the Show, writes as follows: "The Rink, where the show is to be held, is admirably adapted for a bench show, as it is on the ground floor, with good ventilation, and ample space outside for dogs to have a good run. The dogs will all be provided with good, roomy stalls, made from clean-dressed lumber. Straw bedding will be used. The members of the association are all enthusiastic over the show, and, what is better, good, practical workers. Dogs sent by express without their owners will receive the best of care and attention, as special attendants will be allotted to them, overlooked by one of the members. A registry book will be kept, so that dogs sent will be exercised twice during the day and properly fed and watered. The Scott rifle, presented by Wm Read & Sons, will be given to the 'best couple of fox hounds.' The prize lists and forms of entry are now ready. Entries will close on the 5th of February."

**JUDGES AT THE ST. LOUIS BENCH SHOW.**—Dr. Davidson will act as judge for pointers and setters, Col. Skinner for hounds and Dr. Twaddell for spaniels, Chesapeake Bay dogs and non-sporting dogs. We shall be glad to distribute the forms of entry, which may be had on application at the office of the FOREST AND STREAM AND ROD AND GUN. Entries will positively close February 5.

--We beg to acknowledge receipt of the printed list of premiums and classification of dogs at the St. Louis Bench Show. There are ninety-two classes for dogs and eighteen divisions for sportsmen's goods.

**MASSACHUSETTS KENNEL CLUB.**—This club will hold its first regular bench show at Boston on March 26, 27, 28 and 29. Mr. Charles Lincoln will act as superintendent. The following gentlemen will form the Exhibition Committee: Messrs. F. B. Greenough, J. N. Borland, J. F. Curtis, S. W. Rodman, Luther Adams, J. Fottler, Jr., T. S. Sawyer, Jr. The exhibition will take place in the building formerly used as the Aquarial Gardens, Theatre Comique, etc., and later by Jordan, Marsh & Co. for their wholesale warehouse and store. It contains four floors, each having as much floor space as Music Hall. One floor will be used for sporting dogs, another for non-sporting dogs, and the third for an exhibition of sporting goods and pictures. Entries will be \$3; exhibitors free. Admission, 50 cents; season tickets, \$2. The prize list is now being printed in pamphlet form and will be very complete. Many of the prizes will be cups, the rest in gold coin. Very many special prizes have already been offered by sportsmen and dealers of the city. Mr. John Davidson, of Monro, Mich., will act as judge of the sporting classes. Arrangements have been made with railway express companies to take dogs at reduced rates.

FOX HUNTING EN REGLE.

RICHMOND, Va., Jan. 9, 1878.

EDITOR FOREST AND STREAM:

What sort of an animal is the "Anitseed Bag," and has anybody caught one yet?  
Almost every county down here has fox hunters, horses and hounds, but they always run gray or red foxes, the former in the lower country and the latter in the upper country. Dr. Paul Carrington, of Halifax, caught forty-two in one season—eighteen "straight," and all with his own pack. Drag-hunts and bag-foxes are rarely heard of—in fact, the only one I know of was when Col. —, of Hanover, having some guests at his house on a Christmas spree, started a little darkey on a mule with a dead fox, and the little "cass," after following the route mapped out for him, got so numbed with the cold that the old mule took the bit in her teeth and started for home by the shortest way, which was right through Richmond. And then there was a chase sure enough! Here came forty hounds in full cry, and after them twenty riders, the whole concern rushing down Main street like a locust asylum out on a spree, and the people rushing out and yelling all along the way.  
There is a hunting club in Richmond composed of a dozen gentlemen, among whom Col. R. S. A. is a most accomplished sportsman, and though not easy to keep up with in the hunting field, yet one would not desire a more agreeable companion. All the others are good riders, and, what is more, good fellows. And if the editor of the FOREST AND STREAM will direct any friend who loves real sport to any of the gentlemen whose names are in the enclosed private note they may enjoy a run almost any clear day during the season. The expense attending a trip would be but little beyond the ordinary cost of traveling; and though one must not expect to see any fanciful "make-ups," yet he will be certain to see a real fox hunt, and have a chance for the brush.  
P. M.

We trust the readers of FOREST AND STREAM will all properly comprehend and appreciate the marked compliment extended to them from the Hunting Club of Richmond, through our esteemed correspondent. We do not remember any similar invitation to have been given through any public journal, even in the flush times of twenty and thirty years ago. Veteran readers of the *Spirit of the Times* assuredly will put the proper estimate upon it, and piously invoke the blessings of the good upon the venerable and honored brotherhood who thus extend the right hand of fellowship across the border. As for the present generation, it ought to study from the text-books of old memories and traditions, so as to revive the chivalrous intercourse of old-time sportsmen, and wipe the stains and blotches of unpleasant war episodes from the escutcheon of the fraternity. The overtures of our Richmond friends seem to foreshadow the approach of a golden era of sport when a man's honorable training and culture in the manly arts will be the best credentials he can offer for admission to the Order of Gentlemen-at-large.—Ed. F. and S.]

**WHEELS.**—Jan. 14, 1878.—At Fox Farm, N. J., Mr. Raymond's Dido, orange and white, five, by Mr. Geo. Raymond's (late Mr. Theo. Morford's) Bruce. All fine and hearty.

**BELLE.**—A correspondent is good enough to draw our attention to an error in a paragraph of our issue of Jan. 10, 1878, about the sale of Belle, out of Kirby, by Pride of the Border: Capt. Foster sold Belle when a puppy at usual rates (\$50, I believe), but after she was grown her owner, Mr. John C. Higgins, sold her for \$500 to a gentleman in Wilmington, Del.

**MARQUIS OF WINCHESTER.**—Marshall, Tex., Jan. 9.—I claim the name of Marquis of Winchester for my black and tan dog pup, with white feet and breast, by Gordon out of Flash, pupped Dec. 24, 1877. W. W. TURNER.

—The late Professor Sedgwick was in the habit of taking his dog from Cambridge to the hills of Cumberland every year, and on each occasion of his visit the dog regularly left him and took a journey of some hundreds of miles over the hills, to see another dog with which he had spent his youth.—From Professor Seelye's *Lecture on Evolution*.

**VISITS.**—Dec. 18, 1877.—Mr. C. De Ronge's (Milbourn, N. J.) Glen, by Pride of the Border, out of Dimity, to Mr. D. Oleott's pure Laverack Guy Manering, by Pride of the Border, out of Fairy. Guy Manering has twice received special prizes, amounting in value to over \$400, as best English setter born in the United States.

Dec. 23, 1877.—Mr. F. M. Campfield's (Morris Plains, N. J.) Dimity Second, by Pride of the Border, out of Dimity, to Mr. D. Oleott's pure Laverack Roderick Dhu, by Pride of the Border, out of Fairy.

Jan. 14, 1878.—Mr. La Montagne's Abbey, by Young Laverack, out of Raymond's Dido, to the Pure Laverack, Pride of the Border.

Jan. 14, 1878.—Mr. T. F. Anderson's (Newton, N. J.) field spaniel Judy, by Raymond's Badger, out of owner's Topsy, to Mr. Grover's imported field spaniel Sport.

My bitch Pet has visited Mr. Theo. Morford's Don, of Newton, N. J. My bitch Grace has visited Mr. Wm. Conklyn's Dan, of Ocean Grove, Long Branch.

E. F. MERCILLIOTT.

**HALF-MOURNING.**—Dog man: "Yes, ma'am. This here dog, ma'am? Real stock, nary white hair on him. Dirt cheap for you, ma'am. Take him for twenty-five dollars." Young widow: "Oh! the sweet, pretty thing! All black, you say, my man? Well, you must know that my dear husband has been dead these last eight months, and I am thinking—'heigho!' of quiet colors again. Now, couldn't you get me a nice little doggy, with just a little white on him? A kind of half-mourning dog!"

Sea and River Fishing.

FISH IN SEASON IN JANUARY.

SOUTHERN WATERS.

Pompano, *Trachynotus carolinus*. Grouper, *Epinephetus nigritus*. Drum (two species). Family Scia-Trou (black bass), *Centropomus nido*. Kingfish, *Mentidarius nebulosus*. Striped Bass, or Rockfish, *Roccus utarius*. Sea Bass, *Sciaenops ocellatus*. *Inanatus*. Sheepshead, *Archosargus probato-Tailorish, Pomatomus saltatrix*. Cephalas. Black Bass, *Micropertus salmoides*. Snapper, *Lutjanus caxus*. *M. nigricans*.

**FISH IN MARKET.**—Stock fair and in good demand. Bass 20 to 25 cents; smelts, 15; bluefish, 15; salmon, 30; mackerel, 15 to 25; Southern shad, 75 cents each; green turtle, 20; terrapin \$18 per dozen; halibut, 18 cents; codfish, 8 to 10; blackfish, 15; herring, 6 cents; flounders, 12½; eels, 15 to 18; sturgeon, 8; lobsters, 8 to 10; sheepshead, 25; scallops, per gal., \$1.50; soft clams, per 100, 30 to 60 cents; whitefish, 18; pickerel, 18; pike, 12; ciscoes, 12; hard crabs, \$1.00 per 100; soft crabs, per dozen, \$1.00; red snappers, 18 cents. Shad, in limited numbers from Florida, do not find rapid sale. Fish-eaters prefer waiting for the North Carolina, which are larger and fatter.

**MOVEMENTS OF THE FISHING FLEET.**—The shore fleet have not met with a very good catch the past week; but the prospect is considered good. The fitting away of several more of the La Have and Bank fleets has given a little impetus to business, and the bankers which have arrived, have brought in good fares of halibut which have been sold to good advantage. There have been three arrivals, bringing in 131,000 lbs. of halibut. It is reported that the Fortune and Bonne Bay herring fisheries have proved a failure and been abandoned.—*Cape Ann Advertiser*, Jan. 11.

**NEW HAMPSHIRE.**—Nashua, Jan. 16.—Fishing through the ice for pickerel is the sport most in vogue now, and some fine strings have been taken. WEBB.

**MARYLAND.**—Cumberland, Jan. 12.—The black-bass fishing of the Potomac has gradually decreased, on account of the numerous dams built for feeding the C. & O. Canal. No suitable fishways are constructed. Before the floods the canal itself afforded better fishing than the river. HINER.

**BLACK BASS FISHING IN JANUARY.**—P. S. CARY, of Fayetteville, N. Y., caught four black bass at that place one day last week.

**BASS FISHING.**—Cedarville, O., Jan. 10.—We have had most remarkable weather for about two weeks, warm sunny days, the thermometer at 63 and 65 degs. It was so pleasant it was impossible to stay indoors, and not feeling like gunning, I got out my fishing rod and tackle, and thought I would take one more fish. I was greeted on all sides with, "Not going a fishing, are you? If I were you I would go out the back way, and not let any one see me." etc. I, myself, had serious misgivings as to my success; but when I came back in a couple of hours with a nice string of bass, I had the satisfaction of turning the laugh on them. The bass taken would average about ten inches. Used live minnows. Moon full; light wind from southeast, etc. I wonder if any of your

readers have been foolish (?) enough to go bass fishing in mid-winter, or as late as the 21st of December? I assure you that no one was more surprised at my success than was myself. DAYBREAK.

—The United States Consul at Dundee reports that the total catch of seals in 1877 was 76,000, yielding 1,092 tons, worth, with the skins, £53,944, an increase of nearly £17,000 over the preceding year's catch. Eighty-one black whales and 935 white whales were caught, yielding 955 tons of oil and 42½ tons of bone, worth together £92,925, an increase of £28,085 over 1876.

**FISH FROM SIBERIA.**—Siberian fish were eaten lately at the dinner of the Bremen Geographical Society. The fish had been packed in ice and forwarded from Tobolsk, and arrived in perfect condition after a journey of 3,060 miles, though eighty-three days on the road. "A moderate amount of energy and proper appliance," says *Land and Water*, "seems to be all that is necessary to bring our fish fresh to market from any part of the German Ocean and coast of Ireland."

FISHING THROUGH THE ICE ON GURLEY LAKE.

EATON RAPIDS, MICH., Jan. 1, 1878.

EDITOR FOREST AND STREAM:

Last winter a party, consisting of Elder Phelps, Dr. Case, Ellis E. Shaw, Chas. Dodd and myself, all members of the Eaton Rapids Boat and Gun Club, went into camp at the celebrated Gurley Lake, eight miles from this place. We arranged our bed by placing a pole on the ground beside one of the tents crosswise, and putting in a good lot of straw, which we obtained of a farmer not far away, then we spread on about fifteen or twenty blankets, robes and comfortables. This tent was our sitting and sleeping-room, and was heated by a sheet-iron heater; the other we used for a dining-room and commissary department. The morning after our arrival we commenced our *modus operandi*, cutting holes through the ice with an ice chisel and setting lines. We started at the south end of the lake and set north, using live minnows for bait. We had set for half a mile, leaving a line about every ten rods, when I had occasion to go back over the line, not expecting to have a bite so soon. But I was surprised to see one of the floats standing up as straight as a cob. I hastened to the spot and had the satisfaction of landing a fourteen-pound pickerel. Within one hour from that time we had four of the monsters lying side by side on the ice, the first one being the smallest of the lot, the others running as high as sixteen pounds. Some say they were muselunge, but I am positive that they are the real lake pike or pickerel (*Esox lucius*). We caught one on the same lake the year before that weighed over seventeen pounds. We also took a goodly number of smaller ones, which I shall not stop to describe. I will say right here, for the benefit of those who believe in the wind having anything to do with fish biting, that we stayed on the lake about a week, and had wind from every direction, and no day or time did we have as good luck as we did with the east wind, which is called an ill wind. As far as I am concerned, I don't care which way the wind blows so long as the fish bite good. I once witnessed a large pickerel in the pursuit of its prey; it was on the ice at Portage Lake, Jackson County, this State. In this instance we had a hook baited with a live sucker that we caught while we were after minnows; it would weigh about half a pound, making a good-sized mouthful. Seeing the float up I at once repaired to the spot, when I found the fish had let go. So I spread down a blanket and laid me down upon the ice to watch proceedings. Presently there came a sort of phosphorescent light, which filled the water as far around as I could see, and finally the head of a monstrous pickerel appeared, not over three feet below my face. He stopped and gazed at the sucker, who was showing great signs of fear. After a short space of time he snapped his jaws together, then, with open mouth and eyes glaring and sparkling like balls of fire, he made a grand rush for said sucker, catching him near the tail, scraping off the little scales, which threw out a shining light as they descended to the bottom. After holding the little fellow awhile he let him go, and then the fun commenced; round and round the hole went the little sucker, having about fifteen feet of line to play out, with the pickerel in hot pursuit. Finally, the pickerel, by a bold manoeuvre, changed his course and made a rush straight for the sucker. Catching him by the head he wrenched him from the line, not having the hook in his mouth, the hook being fastened to the sucker just under the skin near the dorsal fin. He sailed off in triumph with his prize. Our week at Gurley Lake soon came to an end, as all weeks do, and we broke camp and came home. Some object to camping out in the winter, but I have made a practice of doing it for years, and have yet to take my first cold by camping, either summer or winter. With good warm clothing, plenty to eat, lots of fire-wood, a good bed, and the fresh and bracing morning air to stir one's blood, who could not enjoy camping in the winter. PETER DENNIS.

HINTS ON BASS FISHING.

GLENS FALLS, N. Y., Jan. 6, 1878.

EDITOR FOREST AND STREAM:

I have read to day, for the first time, the FOREST AND STREAM of Nov. 15, and without reading subsequent papers to see what answer, or answers, "Splasher" has drawn forth in regard to "conditions for bass fishing." I will give a few extracts from my note-book, as well as some personal experience in the same connection. Like the crab, I will advance backward:

August 1, 1877.—I caught two bass, weighing 6 lbs., 4 oz., and 7 lbs., 14 oz. The smaller one was landed at 5:30 A. M., and the other at 6:10 A. M.; the bait, yellow perch about five inches long. Wind very slight, and in the northeast; sky cloudless. A thorough using two rods in the boat, both fish were caught on the same rod, which weighed 10½ ozs., single gut leader, and Kirby hook. I do not know the number, but like a No. 2 O'Shaughnessy, tied on a single gut. The place, Long Pond, Warren Co., N. Y. When dressed, the stomachs of both fish found perfectly empty.

July 21.—Fished Round Pond, one-half mile from Long Pond, with a friend, who, at 5 P. M., caught a bass weighing 4 lbs. Wind north of east; sky partly cloudy; bait, small perch—by small I mean from four to six inches. On the same day, in Long Pond, two bass were caught by one person weighing 7½ lbs. each; bait said to be gold shiners, but believed to be small perch—fishermen will make mistakes. These two fish were caught in the morning, about 6 o'clock, by a Mr. S., who was fishing with two hand lines. When he landed one fish, he discovered that his other line was gone. Half an hour later, thinking he saw the wooden reel to which his line was attached dangle on the water, he pulled anchor, and rowing to the spot, found he was mistaken. But, while looking to locate his old position, he did see the piece of wood

Game Bag and Gun.

GAME IN SEASON IN JANUARY.

Hares, brown and gray. Wild duck, geese, brant, etc.

FOR FLORIDA.

Deer, Wild Turkey, Woodcock, Quail, snipe, Ducks and Wild Fowl.

"Bay birds" generally, including various species of plover, sand piper, snipe, curlew, oyster-catcher, surf birds, phalaropes, avocet etc., coming under the group Limicola, or Shore Birds.

NEW HAMPSHIRE—Nashua, Jan. 16.—Weather favorable for protection of quail; grouse abundant; good bags the last month. Not so much fox and rabbit hunting as usual at this season owing to the bare ground. WEZB.

MASSACHUSETTS—West Newbury, Jan. 7.—Whistlers numerous at upper end of Plum Island. Some little game in woods about here. TEAL.

PENNSYLVANIA—Mahonington, Jan. 7.—Shooting season just closed. Largest bag of quail in county reported was fourteen brace to two guns. A fair breeding stock left over. A.

Sharon, Dec. 20.—The Messrs. Cole, who have just returned from Michigan with 21 deer and one bear, report game plenty there. Good bags of grouse and quail have been made by several of our sportsmen. ELMER.

MARYLAND—Cumberland, Jan. 12.—Quail have been very plentiful this season notwithstanding that numbers perished last winter from cold and want of food. We have also had good woodcock shooting. Some of the largest deer ever captured in these parts have been killed a few miles west of us in the Alleghenies and the adjoining counties of West Virginia. Wild turkeys are very plenty, and pigeons (in the glades on the E. and O. R. R.) so thick that there was no sport in shooting them. The squirrels last fall in their emigration destroyed a great deal of grain; as high as six and eight being killed on one shock of corn before the others scampered off. So plentiful were they that they would swim the river and come into the city, numbers being killed in private yards. Panthers seem to be rather plentiful. They are quite numerous in Garrett County (the glades adjoining us), and some were killed by sportsmen last fall. HINER.

FLORIDA—Lentes Lodge, Jan. 1.—Several enthusiastic sportsmen are at Enterprise, they are making good bags of quail and ducks. Owing to warm weather, ducks not so plenty as usual; red-heads, blue wing teal and golden eyes afford fair sport. Quail not so plenty this year as last, owing, I think, to the very wet summer killing the young ones. Deer and turkeys very plenty, saddles only 8 cts. per lb. The fast steamer, Wate Lily, that formerly ran on the Harlem River, now carries the mail on the Upper St. Johns. She seldom varies ten minutes in her schedule.

St. Augustine, Jan. 5.—Snipe, quail, and deer shooting good.

TEXAS—Galveston, Jan. 4.—Game abounds with this season. F. S. C.

MISSOURI—Powellton, Atchison Co., Jan. 1.—The shooting here in the Northwest has been simply elegant this fall. Chickens and quail in abundance. Old Sol Oil, the champion snipe hunter, has made some huge bags. E. T. P.

OHIO—Woodstock, Jan. 11.—Weather favorable for the quail crop next season. T. M. O.

SOUTH-WESTERN OHIO, Jan. 10th.—Our hunting season has just closed; game has been exceedingly plenty, partly accounted for from the fact that we were restricted from hunting for two seasons past. Quail were more numerous than any season in my recollection. The season lasted one and a half months; the weather during that time being all that could be desired, no snow having fallen, for which I am very thankful, as it prevented the wholesale destruction of game by "pot hunters." The farmers here have had a very severe attack of the "posting fever," and are swearing vengeance on any one hunting on their premises. About a half dozen sportsmen have been arrested, most of them pleading guilty and paying their fine of from \$7 to \$10 and costs; one, a market hunter, not pleading guilty, was bound over to court in the sum of \$100. There has been some stock crippled too, much cow shot in the upper. But I find there is no hunter these farmers detest as much as the market hunter; one such person in our neighborhood has done more to set the landowners against hunters than all the sportsmen put together; he shot between five and six hundred quail and shipped to city market. There is talk of passing a law this winter not to allow any hunting for five years—we tell them quail will be so thick they will bite them! Some of our sportsmen made good scores during the season—two, three, and some four hundred quail; a fair shot could bag from fifteen to twenty-five quail in a single day's shooting. "DAYBREAK."

MICHIGAN—Detroit, Jan. 12.—W. Smith and R. Gay yesterday bagged eight rabbits out of nine started. RED RUFFS.

WISCONSIN—Nelson, Jan. 5.—Game this fall was almost totally defunct, owing to the fine weather which prevailed during the month of November. Few mallards and very wild; no good bags made. AMATEUR.

A GOOD MANY SNIPE.—The New Orleans Pigeons is responsible for what it calls "the greatest shooting exploit ever performed in this country." On the Teche snipe are abundant. A gentleman owning an estate there, so our authority affirms, is in the habit of shooting on the wing 300 snipe a day. Lately this sportsman in six days killed 1,960 snipe. Allowing six hours per day to the hunt, this would give about a snipe every minute. As our readers have been frequently informed by our Southern correspondents, snipe are found in enormous quantities in Southern Louisiana. Conceding the mere ability of the person who shot all these snipe, still we doubt as to his possessing true sportsmanlike proclivities. Such wholesale slaughter we cannot mention with pleasure.

The Cuvier Club of Cincinnati gave its usual reception to its friends on New Year's Day. Very numerous invitations had been issued—for the Cuvier does not throw open its doors to mobs—and the elite of the city looked in upon its cosy quarters and did justice to the elegant cuisine. The callers numbered about a good regiment—some 800 persons. Its own membership is about 400, and the future of the club is promising. R. E. DUCAIGNE.

come to the surface, and getting hold of it, found the fish still fast, and killed it.

September 20, 1876.—Julius Seeley caught in Long Pond a bass weighing 7 lbs. 10 ozs.; bait, small perch. Do not know condition of weather. September 7, 1876.—Fished Long Pond. When first anchored, about 6 A. M., water smooth as a mirror. Anchor hardly down before I got a strike on my 8 oz. bass rod that indicated a large fish. When nearly 100 feet of line had been deliberately taken and I was forced to strike without the fish once halting to gorge the bait, I was gratified to see a large fish show himself twice, at the end of my line. After getting him nearly to the boat, he made two runs, each time taking the most of my line. When I finally reeled him close to the landing net, he jumped from the water, and spit on the bait—a five-inch perch. Upon examination, I found that the bass had swallowed the bait only to the hook, which was crosswise of the perch under the back fin; and there held on and made his fight without once being pricked with the hook, and it was only the proximity of the net or boat that made him repudiate. The fish was estimated by the boatman, Julius Seeley, to weigh over six pounds. I did not weigh him. Later in the day there was a slight breeze from the northeast.

September 17, 1876.—Went to Long Pond. Got on the fishing grounds about 7 A. M. Wind N. E. E., and blowing a gale. Anchor would not hold. While looking for heavy anchor on shore, Julius Seeley, who anchored on same ground as I had drifted from, caught a bass weighing 6½ lbs., when his anchor rope was broken, and he, too, came ashore. He used perch for bait. The day was pleasantly warm, and sky clear.

August 12, 1876.—Fished Long Pond. Largest bass 3½ lbs. Used silver shiners, had no perch of suitable size for bait. Wind cast of north. The fish was caught in the middle of P. M., on grass bottom.

I fish in water from fifteen to twenty feet deep, and anchor between a patch of weeds and deep water, to intercept the bass on their way from the deep, cool water to the weeds, where they find the small fish on which they break their fast.

Fish in such a place in the morning and evening for big ones, and the balance of the day, if you choose to sit in the sun, find grass bottom and go for the small ones, three-fourths of a pound upward, with the chance of once in a while striking one of two or three pounds. Put on a float the length of your rod from the hook, care being taken not to put on too heavy a float, and use a light sinker. With a heavy float or sinker your bait is soon used up. In catching perch for bait, set them in shallow water near the shore; those caught in deep water are darker in color, not so conspicuous, and will not live as long as you are putting them on the hook. A shallow water perch will live longer than a minnow, and there is not the danger of throwing them off the hook. For small bass, minnows are as good as any other bait fish, and tougher than gold or silver shiners. A sucker is equally good, but the fishing in different waters will differ even with the Oswego bass, to which I refer in the foregoing.

When you come to a black bass that grows in rapid water, you must "Stand down the hall." He is a gentleman of the first water, and entitled to respect. He wants a bill of fare every day, and he makes his own selection. Don't go fishing on Saturday with Friday's menu alone; if you do, commence at the bottom or the top, and go through it, you may strike him somewhere between hutter and cafe, and—you may not.

If you fish with bait, go to some bass river, and where the current is strong at the foot of rapids, with comparatively smooth water—perhaps there is a bend in the river, and the channel is deepest just off shore. Anchor just above the "hole," in the early morning. If the current is not too strong, put on your float so your hook will almost touch bottom. Stick your hook through the tail of a fresh water crab or crayfish, throw it overboard, and look out for a snail. If the current carries your bait on the surface, take off your float and drop your bait on the bottom. "But my crab has got under a stone my hook is fast." All right, don't try to pull it out, light your pipe, but be quick about it, get hold of your rod and admire the beauties of the morning, or—By theobonies of the Imperial Bacchus! what a break he made! He noted that crab out of his hole in a hurry, and he is as full of business as St. Nicholas the night before Christmas. He is a Cash-in, and now it is the freedom of the black-waters from which he came, or into port dead, (Brother H., this is owing to the turkey I ate for dinner, and if the higher powers let me off with "six months," I won't be found here again). A man has his hands full, or four of a kind, to beat a black bass. In such a place as I mention above, a bass will make his presence known at once, for that is what he is there for, to feed on what comes down the stream. I have found crayfish the best bait, and most certain to take in rivers with rocky bottoms. When you have fished the first place and it is 10 o'clock, go ashore and rest in the shade until 4 P. M.; then join your rod and, from the boat, cast toward the shore and over the pools, and give the bass their dessert.

In 1872, fishing with Col. Jephth Garrard, I was casting with three flies on my leader, and saw a small bass rise close in shore at my stretcher. I hooked him, and he did not show again, but became suddenly a two-pound bass instead of a one-pound fish, and he soon increased still more. As we were fishing below a fall and above some very rough water, and I was using an eight-ounce fly rod, we had to shoot the rapids or break something, and shoot it dry. When the landing net went under that bass he was three bass, and weighed nearly 4½ pounds. In this connection let me say that in November, 1876, the types of F. AND S. made me say that Col. Garrard caught a black bass on his fly rod weighing three pounds, and it was the largest of which I had any knowledge caught in the Hudson. If you will please make that bass weigh five pounds (don't use shot, or you will infringe on the patent of Mr. John Van Bu-kik of Washington) the statement will be correct.

Much of what I have written will be old news to many, but if we get at the true inwardness of bass fishing, those who know it all must be patient with those who don't, while they air their ideas; and, too, we must make notes of days that are drawn blank, as well as those we mark with a red letter.

It would almost seem as if the large bass go in pairs all the summer. Seeley, that I mention above, while fishing a year ago last summer, caught, at two different times, two bass that weighed about six pounds each, and once, one of about the same weight, and lost another. I did this last myself in Lake George in 1875. You see that on the days when the wind was noted, it came from between north and east.

If "Splasher" will send me his address, I will be pleased to send him some tied hooks that, I think, are the best bass hooks used; and if he will come here and catch some bass that I will show him, or tell me how to do it, I will make my thanks loud and strong, if "my left leg is nearly gone."

I agree with "Splasher" that a bait fish, of whatever kind, must be lively; and it needs looking to frequently, if it is anything but a perch, which I consider the best bass bait—and I am not alone in this opinion—for large bass. A perch will live longer than any other fish; is tougher; and fishing with two rods, on one a perch, on the other a minnow or shiner, or gold shiner, or silver shiner, the perch will be preferred. For large bass use large bait. If one of your minnows gets cut or mutilated in any way, the jig is up for that bait, unless the bass are very hungry. I never caught a bass on a dead fish—I don't remember that I ever tried. You can do as you like with the pronoun in first person singular that occurs so often, it is beyond me. GLENS FALLS.

A few gentlemen wishing to join a first-class shooting and fishing association can hear of a favorable opportunity by addressing GAME, this office.—[Ad.]

AUDUBON CLUB.—Chicago, Jan. 9.—Editor Forest and Stream.—The Audubon Club, of this city, held their annual meeting Jan. 8. The Secretary's and Treasurer's reports show a membership of forty names on their rolls, no debt, and a comfortable cash balance in the Treasury. The following officers were elected for the ensuing year: Chas. Kern, Pres.; W. T. Johnson, First Vice-Pres.; Greene Smith, Second Vice-Pres.; Geo. Barnard, Sec.; Abner Price, Treas. Board of Directors—S. H. Turrill, Thos. Staggs, J. J. Gillespie, Chas. Morris, N. C. Hinsdale; Dr. N. Rowe, Kennel Manager. Action was taken in regard to the State Sportsmen's Convention, to be held in June, and the following delegates and alternates were appointed: Delegates—Chas. Kern, S. H. Turrill, Abner Price, N. C. Hinsdale, W. T. Johnson. Alternates—Dr. N. Rowe, Chas. Morris, Thos. E. Felton, Alex. Cook, Thos. Staggs. The Board of Directors were instructed to call a club shoot at the earliest practicable moment. There is a prospect of an early match at glass balls—teams of eight or ten men—between the Audubon and Chicago Clubs. G. B.

SOUTH BROOKLYN SPORTSMEN'S CLUB.—At a meeting at their rooms, 933 Third Avenue, S. B., the 7th inst., the following officers were elected: Francis Juif, Pres.; John Marony, Vice-Pres.; Paul A. Bassinger, Secy.; Gus Boyesen, Trcas.; John Castlehune, Sergeant at Arms.

FERRISBURG (VT.) SPORTSMEN'S CLUB.—The officers of this efficient club who have been elected for the ensuing year are: President—Walker Field; Vice-President—M. E. Hall; Secretary—R. E. Robinson; Assistant Secretary—Wm. C. Bradbury; Treasurer—Byrn W. Field; Executive Committee—J. A. Cadwell, Reuben Parker, F. A. Woodbridge, Daniel R. Young; Chaplain—Brevet-Rev. Joseph Kirkitt.

OUR NEW YEAR'S DUCKS.—We are frequently called upon to acknowledge the receipt at this office of the kindly remembrances of our friends. All kinds of fish and game have graced first our sanctum and then our table. Visions of a like savory gift came before us, as New Year's eve, we opened a box sent us by M. C. Wedd, of Rochester. But, alas! the ducks were unpalatable—wooden; in short, stones for bread. Our thanks are due, but what can we say with an empty stomach? Wooden decoys are all very well in their place, but don't tantalize a hungry editor by such inedible gifts.

IRA A. PAINE AT PROVIDENCE.—Mr. Paine has just closed a most successful engagement in Providence, at the Opera House, where he has been smashing the glass balls for the last week. The sportsmen generally in Providence, to whom glass ball shooting was novel, have expressed themselves as delighted with this new amusement, and in Rhode Island glass ball shooting will soon be the rage.

WHERE THE WILD PIGEONS ARE.—Correspondents tell us that the pigeons were roosting on Tionesta Creek, east of the Allegheny River, in Forst and Warren Counties, about a month ago. A week ago they were roosting about six miles back of President, Venango Co., Pa. Several flocks flew over Petroleum Centre within the last few days. Trappers could have caught them here by thousands during November and December as they would come down to tame birds, and they flew in vast numbers mornings and evenings. Pigeon hunting and good sleighing seldom come together.

STILL ABLE TO SHOOT A LITTLE.—On Saturday afternoon, Jan. 19, Capt. Bogardus will shoot a match with Dr. Talbot, a well-known amateur shot. Capt. Bogardus gives Talbot 50 broken balls in 100, Talbot to shoot at 50 balls, Bogardus 100 balls to be sprung from one trap, screened from view of the shooter, and arranged to throw the balls each time in a different direction. Both to use the same gun, not to weigh more than 7½ lbs. Capt. Bogardus will at any time shoot a match with Paine, giving him some odds.

W. & C. SCOTT & SONS' GUNS AT SCHUYLER, HARTLEY & GRAHAM'S.—Such admirable specimens of arms made by W. & C. Scott & Sons, as were exhibited to us by Messrs. Schuyler, Hartley & Graham, we have rarely ever seen before. In some respects these guns were exceptional as to weight and bore. Fancy breech-loaders 5½ lbs. to 5¾ lbs., 26 to 28 ins. long, with a 20 bore, and loading with a shell charged with 2 to 2½ drs. of powder and ¼ of an oz. of shot! Such beauties we are comparatively ignorant about in the United States where heavier guns are more in demand. Such small bores and light weights are, however, coming fast into use in England. As they are modified choke bores, of course they hit hard and true, but may require greater skill on the part of the shooter. These small bores may be considered as the refinement of sport. The barrels are of the finest laminated steel, with bar and rebounding locks, top snap and double bolt, extension rib, large head strikers, patent fire-end fastenings, pistol grip, with horn heel-plate. As to exquisite finish and beautiful work, these guns are unsurpassed. All that patient and conscientious skill can do for barrels, locks, breech movement, has been expended on these arms. Messrs. Schuyler, Hartley & Graham exhibit a Scott & Sons' gun of heavier weight and bore, an 11 lb. gun with a 10 bore, 34 in. barrel, which was made specially for the Paris exhibition. This arm is, undoubtedly, the choicest gun we have ever set eyes on. Perhaps Messrs. Scott & Sons never built a more perfect arm.

WITH A REMINGTON RIFLE.—A correspondent from the State of New York writes as follows: "I shot a deer at sixty rods with a Remington rifle, 33-100 short cartridge. I put the ball through and through the deer. I am sure to kill whenever I get a ball from a Remington into a deer. He always drops in his tracks."

FOND OF THE WOODS.—James P. Williams, Esq., Cashier of the National Bank of Schoharie, is an ardent sportsman. For the last twenty-two years Mr. Williams has not missed fishing or hunting in the Adirondack region. His sojourn is generally of a month. It speaks well of Mr. Williams' love for a life in the woods, and we hope he will long be able to seek the sylvan glades of John Brown's track.

THE FINEST TURKEY OF THE SEASON.—MESSRS. E. & A. Robbins, Fulton Market, have this week sent to Allen Gilmore, Esq., of Ottawa, Canada, by our order, one of the finest wild cock turkeys we ever saw.

RECOIL.—A correspondent writes us the following in regard to some theories of recoil, which have found publicity in our columns, and which theories we by no means indorse:

PHILADELPHIA, Jan. 5.

EDITOR FOREST AND STREAM AND ROD AND GUN—I have been very much amused at some of the articles on recoil that we have had lately, and which claim that the projectile has no influence on the recoil. Have any of our friends ever got two loads of shot into one barrel (in former muzzle-loading days) and not have their shoulder sing out on the subject feelingly?

A QUESTION TO "STRAIGHT-BORE."—Editor Forest and Stream.—I would like to ask "Straight-Bore" why, if the recoil takes place after the ball leaves the gun, a heavy gun gives, with the same charge of powder and lead, so much better penetration than a light one? Yours truly, Washington, N. J., Dec. 31, 1877. E. N. MILLEN.

CAPTAIN BOGARDUS.—The rentree of this celebrated shot at the Tivoli Theatre after his wonderful effort of skill and endurance drew a very large attendance. Though still suffering somewhat in the muscles of his right arm, during his special performance not a miss was made. The captain broke ten singles thrown from behind the screen; next broke fourteen balls in the minute; after that he pulled three balls, smashing them, and concluded by making a neat double. The Tivoli Theatre was crowded on the occasion, and the captain for his skill and gallant mien was rapturously applauded.

—A correspondent corrects our statement that the close season for quail in Maryland begins Feb. 1. We took our information from the law as published in the current number of Fur, Fin and Feather, and are indebted to our correspondent provided our authority is wrong.

\$20,000 CHALLENGE TO BOGARDUS AND DR. CARVER.

EDITOR FOREST AND STREAM:

Being desirous of giving an exhibition of my skill with the shot-gun, I will offer the following challenges: 1st. I can break more glass balls than any man in the world. (I say this because every one else does.) 2d. I can break more glass balls than there are in the world at this present time. 3d. I can break more balls at 25 yards standing on a No. 8 wand than any man in the world can at 30 standing on horseback. 4th. I can break more Winchester rifles, or rather break more balls with one at 20 paces, than Dr. Carver can at 10 with a bow and arrow. Rhode Island rules, plung trap; each man to trap and gather his own balls. Parties meaning business will apply soon, and arrangements will be made at once with the U. M. C. Co. for several million shells. Mr. Hobbs will be only too glad to furnish them.

The Ladin & Rand Co., also Hazzard, Dupont & Dittmar, will go into estimates at the mere thought of furnishing free all the powder necessary, and Ely Bros. will stand a sight draft for a half ton of pink edge wads. Tatham, Otis LeRoy and the Sparks estate will, no doubt, get into a lawsuit as to who will furnish the most shot; but as this is a matter of no moment, we will not discuss it here. I will say to the gun trades that I have a gun—in fact, several of them—and therefore will anticipate the thousand and one offers of choke-bores, taper-bores, cylinders and bell-muzzles that are to be made. I shall be delighted if my friend, Geo. Hayden, of Jacksonville, Ill., will consent to be present to prevent any "crookedness," and if "Gloan" will be on hand to settle legal questions, he will be entitled to traveling expenses and thanks.

Philadelphia, Jan. 15, 1878.

SPORTING NOTES FROM THE LOWER COUNTIES OF CALIFORNIA.

EDITOR FOREST AND STREAM:

In the latter part of December, the most attractive sport is the pursuit of wild geese. These are fairly domiciled in the grain fields and water courses of the lower counties, and growing immensely fat from feeding on the young, tender barley. They are approached in the fields by wagon or by saddle, the gunner in the latter case screening himself from view by walking close to the horse on the opposite side from the game. In the warm, sunny hours of midday, the flocks of the Santa Anna River are well covered with the immense gray geese, whose summer home is in the Arctic region. There are also the smaller varieties which have neck and wings of pure white.

Starting out any of these fine winter days, with lower limbs well encased in water-tight boots and leggings, with a good breech-loader and retriever, a day can be well spent among the miniature islands of this river. The latter seem specially adapted for the fowler. The current makes its way in numerous shallows, nowhere over the boot in depth, flowing over a dazzling white quicksand, the latter being not in the least dangerous to traverse, as it rapidly packs in a hard mass after a few footsteps in the same place. It is on the wide, shallow flats, conveniently sprinkled with hummocks or miniature islands of tules and bushes, that the geese and mallards bask themselves in the midday sun. Decoy shooting for the former has not been practiced here as yet, but as they have their favorite baunts on the river, and as observation has shown me that large numbers will frequently alight where one or two are occupying a favorable position, it appears probable that if the above method was practiced in such localities, with several tame geese as decoys, or wild ones stuffed, great numbers could be shot down. In cruising along the river, flocks are frequently met with which cannot be approached unseen. In such cases, substituting shells loaded with swan or buck shot, and emerging into plain view, walking quickly toward them, the writer has frequently got within 80

or 100 yards before their reluctance to move was overcome, they generally leaving, as a penalty, one or two of their number behind. Mallard, and several other varieties of large ducks, are quite plentiful; also the diminutive but ever-welcome teal, the above getting in fine condition feeding on the wild celery which grows luxuriantly in these parts. Just scarce enough to make them highly acceptable when bagged, are the Wilson snipe, which are eagerly sought after by San Francisco epicures. Before closing I would state that quail, as usual, are very numerous, and a day among the Arroyos, to the south of R., or on the brush plains to the north of the Southern Pacific R. R., will generally bring you a well-filled bag. Unfortunately, the services of our canine friends are not as necessary here as in the East, owing to the generally open nature of the ground, thus depriving us of one of the chief pleasures connected with bird hunting; but since the brush plains above mentioned are found to abound with the quail, their use and necessity become more apparent. Two Englishmen, shooting for the San Francisco market in the above-named locality with dogs, are reported to have brought in forty dozen as the result of one day's work. As for larger game, our old friend, Uncle P., was down from Mount San Bernardino a few days since, reporting b'ars scarce, but deer very plenty. Engaged in hunting stray stock recently, he had brought down three during the day while in the mountain valleys to the south. A regular hunt, with horses and dogs, a somewhat unusual occurrence here, resulted in the capture of seven fine deer.

ANOTHER FUSILADE.

MR. EDITOR: So many correspondents of the great quadrilateral (F. and S. R. and G.) have been firing off their guns in the recollections, merits of guns, etc., that I feel recharged myself, and seek relief by firing my own gun—squib. On the recoil theories I simply make this suggestion, if recoil does not take place until after the charge has left the muzzle of the gun, why is it that a rusty or rough bore will kick like a mule with a small load, and no recoil be perceptible after the bore is emerged smooth?

In regard to altering muzzle-loaders to breech-loaders, any gun can be altered to use brass shells, but for paper shells the breech of gun must be of a certain thickness. The method proposed by your correspondent, S. L. Hart, is defective, as the screw holes in barrels are an element of weakness. The lugs should be brazed or silver soldered, which will make the joint as strong nearly as the metal itself. Soft solder will not do. I have knowledge of one instance in which the solder gave way, planing the shell in the sportsman's face, and making its mark for life—happily the eyes were not permanently injured. The gunmakers charge from \$40 to \$100 to convert a muzzle-loader to a breech-loader. What the actual cost of the job is I will not pretend to say, but have been assured by an expert that \$25 will pay for a first-class job, small breeches, centre fire, etc. If gunmakers can and will do such jobs for \$25, and will let it be known, they may be assured of thousands of good muzzle-loaders to convert. At present prices—unless a man has an extraordinary fine gun—it will not pay to have it converted, as he can buy a new breech-loader, of good material and finish, for less than the cost of converting the old gun. If money is no object, buy a breech-loader, and lay your old gun on the shelf. If impetuous, let me whisper in your ear that you can make as good a bag with your old friend as with the best \$300 breech-loader ever imported, and if out for an all day shoot, have a lighter load of ammunition to carry. The chief advantage of a breech-loader is its convenience in changing ammunition, and the ease with which it is cleaned. I have both systems in use, and know whereof I write. A new gun can be sold at retail for from \$50 to \$75 that will shoot as well and wear as long as a \$300 gun. Any amount above this is simply so much paid for the gratification of the eye, and adds nothing to the real value of the gun. The \$50 to \$75 gun should have laminated steel barrels and fine quality steel locks. Laminated steel will outwear two twist or Damascus barrels. A fine Damascus barrel is beautiful, but I have never seen one that would keep smooth inside without the constant use of emery. Indeed, as far as a fine surface is concerned, I think that homogeneous steel, such as Remington puts in his \$45 guns, will wear better than the finest Damascus ever made. Will not some one who has the conveniences—Remington, for instance—experiment with homogeneous steel, and relieve our minds of all doubt as to its strength? Can barrels of homogeneous steel be made as light as twist or Damascus, and stand the same proof charges? Is there any danger of the metal becoming crystalline? A few words as to the ease of muzzle-loaders: Always clean your gun before putting it away, and occasionally remove the breeches and polish the interior with fine emery. If you use the old style nipples, throw them away and buy a pair of reversed cone nipples, you can then use coarse powder, and not be troubled with misfires, thereby making better pattern with increased penetration and less recoil. For a gun that carry all day, use a 16 to 14 gauge, 6 1/2 to 7 lbs. weight. Such a gun, with 2 1/4 to 2 1/2 drs. coarse powder, and 3/4 oz. No. 8 American shot will fetch anything at forty yards, if held right. A 16-gauge gun would require at least 3 1/2 to 4 drs. powder and 1 1/2 oz. shot to be equally certain at the same distance (both guns to be same style boring), and if of no greater weight the recoil would be demoralizing.

TEN BROOK.

PIGEON MATCHES.

BROOKLYN DRIVING PARK.—Parkville, L. I., Jan. 9, 1878.—Pigeon shooting; monthly handicap contest of the Fountain Gun Club for a gold badge. Twenty-four contestants at 7 birds each; 80 yards boundary; 1 1/4 ounces of shot; H and T traps; the club rules to govern.

Table with names and scores for Pigeon Matches. Columns include names like C R Durfee, Miller, Cleaver, Madson, De Fraile, C Williams, Siane, Waters, Hempstead, Walters, Race, M Williams, J White, Henderson, O'Connor, V White, Hensel, Messrs. Steele, James, Hunter, Byrne, and Hawks.

Mr. Walters, of L. I. S. C., was referee. Time of shooting—Two hours and two minutes.

LONG ISLAND.—Dexter Park, Jamaica Road, Jan. 11, 1878.—The regular monthly sweepstakes shooting of the Long Island Gun Club. Sweepstakes, \$2; nine entries, \$18, which was divided into two parts—\$12 to first, \$6 to second; each to shoot at three birds, 25 yards rise, 80 yards boundary; 1 1/2 ounces of shot, H and T traps; the club's rules to govern.

Table with names and scores for Long Island Sweepstakes. Columns include names like Williams, Jones, Gillett, Ward, Broadway.

Same Day—Sweepstakes, \$2 each, at three birds, had eight contestants; total, \$16, divided—\$10 to first and \$6 to the second; the other conditions as above.

Table with names and scores for Sweepstakes. Columns include names like Williams, Broadway, Hance, Gillett.

Same Day—Sweepstakes, \$2 each, at three birds, had eight contestants; total, \$10, divided—\$6 to the first and \$4 to the second; the other conditions as above.

Table with names and scores for Sweepstakes. Columns include names like Ward, Broadway, Hicks.

Referee, Mr. Charles Dexter. Time of shooting, two hours and forty-five minutes.

PENNSYLVANIA.—Germantown, Dec. 26.—Match between Greenwood, of this city, and J. Wistenmeyer, of Phila.; 21 birds, 21 yards. The score was:

Table with names and scores for Pennsylvania Match. Columns include names like Greenwood, Wistenmeyer.

Christmas team shoot; 12 balls, 18 yards; Bogardus' trap and rules. Score as follows:

Table with names and scores for Christmas team shoot. Columns include names like Karsner, Edgard, Emory, Thomas.

In sweepstakes, five single birds at 21 yards, Emory and Karsner tied on five; shoot off won by latter on three. Thomas and Edgard tied on four and divided second money. Match at 25 yards; Emory and Karsner tied at 31 yards; Emory won by three.

WACO GUN CLUB.—The Waco Gun Club shot, Jan. 1, for three elegant silver prizes; 15 glass balls; Bogardus' rules:

Table with names and scores for Waco Gun Club. Columns include names like G B Gerald, W E Cresop, W T Lane, S A Garland, Dr Cack, Schmid, Sorg, J Thompson, W S Almond, E McCall.

Ties on twelve for second prize. Ties on eleven for third prize.

Table with names and scores for Waco Gun Club. Columns include names like Sorg, Cresop.

CINCINNATI SHOOTING AND FISHING CLUB.—Thursday, Dec. 27.—Match at 15 single birds; plunge traps. Three prizes were shot for—a hunting coat, keg of powder, and a hat. Score:

Table with names and scores for Cincinnati Shooting and Fishing Club. Columns include names like W Caldwell, J A Jones, R McGraw, D T Disney, O Topp, P W Remington, W Y Sedam, C W Ely, H J Koch.

On tie for third, Disney won on five straight birds.

To COLOR MEERSCHAUM.—He was a grave man. We respected him highly, because we never yet had seen any human being with such a talent for coloring meerschaum pipes. He never talked much, he mostly smoked. He recalled to our mind the party who, when he died, had no one to utter a good word for him, save one sympathetic creature who said over his mortal remains, "Well, he was a good smoker." He, our own smoker, was not a communicative person; but, once being out of tobacco, we gave him some Vanity Fair, and won his heart. "I will tell you," said he, between his puffs, "how it is done." He exhibited his pipe. It was mahogany, rich umbre, the delicate tints of Sienna, Vandyke Brown, with a creamy whiteness above that line of demarkation which only the true meerschaum smoking amateur understands. "Imprimis, buy a Kaldenberg pipe," he said. "I have bought pipes in London, Paris, Dresden, Berlin, Munich, Venice, St. Petersburg, but the best I ever purchased were made by Kaldenberg. It is the material, the choice material which Kaldenberg selects, which does it. It is only a silicate of magnesia, you know, and the froth of the sea is fudge. Smoke slowly, and above all be careful. Don't lay your pipe around. A scratched pipe is a horrible thing. It is dreadful to think how dumb people are. Do you remember when folks used to swathe pipes in buckskin, as if they were mummies? It was all stuff. Now, as to the theory of coloring, your maker boils his pipe in wax; and why? It isn't to increase the capillary action. That's nonsense, too. It is done because the surface of the meerschaum can be polished. The wax is there, and can be burnished, making the pipe glossy. I have had pipes of meerschaum undressed, without wax. They were neither good tasted, nor were they ever colored. Now, suppose we take a piece of stone and break it, can you see any prettiness of color or shade there? Now, take and polish it, and out comes the color. It is the glazed and even surface which, reflecting the light, intensifies the color. Don't you see? Scratch a fairly colored pipe, and the scratch shows almost white. Of course the oil of the tobacco does come through, which imparts the shade which polishing deepens. Understand? What are you to do? Why, get a piece of canton-flannel, after you have smoked your pipe, then rub your pipe bowl clean. Don't be slovenly, and leave ashes in your pipe case. Tobacco ash, containing silica, cuts the pipe like sandpaper. That's all. First Kaldenberg, and then a polish. Some more tobacco." Then the grave man lapsed into quietude. After an hour's silence he said, "I never broke a pipe in my life." We must confess that we did not credit this assertion. "It was always other people who did it," he said, reflectively. We hasten, then, to give this explanation of how to color a pipe for those who intend putting their minds to the task. Mr. Kaldenberg says our informant was right both in theory and practice.



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INDOOR RECREATION AND STUDY OF OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.

[POST OFFICE BOX 2532.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, JANUARY 17, 1878.

### To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANKS,  
Business Manager.

S. H. TURRILL, Chicago,  
Western Manager.

**VICTOR EMANUEL.**—On reading of the death of the King of Italy all true sportsmen will express their regrets. For a king, Victor Emanuel was a bluff, honest and hearty man, and had endeared himself in the hearts of all Italians. Passionately devoted to hunting, he sought in the chase that wholesome relaxation from the cares of statesmanship. The title of *Re gallantuomo* will long be remembered when associated with Victor Emanuel, who, in more respects than one, resembled the best beloved of all the French Kings—Henri Quatre. May St. Hubert, the patron saint of hunters, find a place for this brave king in the region of the blest!

**OUR CHESS DEPARTMENT.**—With this week's issue we add to our columns a Chess Department, which, we trust, will be an additional attraction to our pages and of interest to a large number of our readers. Chess playing has ever been regarded as a high intellectual recreation, and the beauties of its varied and marvelous combinations engaged more than the passing attention of statesmen, generals, philosophers, poets and cultured minds for centuries past. The patient researches and investigations of different chess authors would form quite a library of themselves, and not a little astonish the uninitiated should he attempt to obtain such a collection, or be led by a sudden inclination to inquire into the character of their contents. In the dark ages chess was only known to the nobility, and regarded with superstition and awe by the commoner; but happily the game has now extended to all classes and justly become a favorite pastime; and although of Oriental origin, it has now no confines, and is today, perhaps, more popular in America than elsewhere. The names of its eminent and illustrious masters will remain ever green so long as this world exists. Our readers, therefore, should find an occasional spare moment to devote to chess, justly called the "royal game," as did Napoleon, Frederick the Great, Franklin, and countless men of genius in the past.

**PORT ROYAL AS A PORT OF ENTRY.**—Efforts are now being made to have a port of entry established at Port Royal, S. C. This harbor, which is the most capacious on the South Atlantic coast, will, without doubt, ultimately be the terminus of the great railroad lines now contemplated, and thus form the outlet for the products of the West and Southwest.

There are a very large number of letters at this office for the gentleman who advertised in our columns for a grazing range in Colorado or Texas. We have notified him three times by mail without result.

**THE OLD GUARD BALL.**—The arrangements for the Old Guard ball, to be held Jan. 24, at the Academy of Music, are being rapidly completed, and if we may judge from the ready sale of tickets and boxes the event will be most successful. Within the last few days boxes have been secured for the officers of the Ninth and Twenty-second Regiments, the staff of the Governors of New York and Massachusetts, and for Gen. Varian and his staff; Mayor Stokley, of Philadelphia, a number of army and navy officers, and many of the foreign Consuls at New York have accepted invitations. Messrs. Taylor & Gelston, of the St. Denis, will furnish the ball supper in Nilsson Hall. The music will be by Downing's military and Bernstein's string bands.

**OUR CONGRATULATIONS.**—We offer our best wishes to our brilliant French contemporary, *La Chasse Illustrée*, on the completion of its tenth year. Under the capital management of M. de la Blanchère and his talented assistants this journal, for solid information and brilliant writing, has no equal. With correspondence from all parts of the world, the information which it often affords us we are only too glad to acknowledge. Apart from the excellence of the text, *La Chasse Illustrée* is perfect as to illustrations and general typography. We are quite certain that its future success will surpass even the expectations of its proprietors.

### VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.—No. 11.

BY THE EDITOR. JANUARY 12, 1878.

**MY READERS:** My last letter touched of sport among the sharp-tails near Brainerd. Something of what follows will refer to my hunt among the pinnated grouse in the southern part of the State, of which my *compagnon du voyage*, John Swainson, Esq., editor of the *Swedish Pioneer*, of St. Paul, has already written at length.

While at Brainerd I was encouraged to go West into Dacotah by our mutual friend, Jerome Marble, Esq., of Worcester, Mass., whose special car had stood on a side track over Sunday. He had his family along, with two English officers as guests, Capt. Fitz Mathew and Messier. Engagements, however, prevented my accepting his courtesy, and so I lost the opportunity to contribute my quota to his big bag of 180 birds. Retracing my steps eastward along the line of the Northern Pacific Railroad, I reached the junction at Thompson, and then ran due south along the line of the Lake Superior and Mississippi Road to St. Paul, the officers having courteously sent me passes. The first part of the route is wild, but the lower portion is much occupied by settlements; and there are some noted watering-places, chief among which is Lake Minnetonka. The greater part of the route is nearly parallel with the St. Croix River, which is the boundary between Wisconsin and Minnesota, and at Rush City it touches it. There are many places where excellent entertainment is provided, and the sportsman can get all the big and small game he wants by making one of these places his headquarters. No trouble about obtaining guides, white or red.

Of the scenery around St. Paul, as observed from the river, the guide books have spoken with abundant enthusiasm. The city is chiefly perched upon a limestone cliff, into whose base huge vaults have been excavated for the accommodation of beer, whose quality is said even to exceed that of Milwaukee. These cliffs impinge upon the river, and being interrupted by seams of sandstone, water has percolated through the latter in many places and worn out caves of great or less extent, which for years afforded hiding-places and council-chambers for the Indian tribes. The broad sweep of the Mississippi incloses an island, most conveniently located for a pier of the bridge which crosses the river. Several miles above St. Paul is the suspension bridge which unites St. Anthony to Minneapolis. This group of three cities, with their varied industries, especially the great lumber and grain interests, constitutes a commercial centre of no small significance and stir. It is difficult to imagine a financial depression that can vitally affect the great combination. The fur trade is an important item of itself, and as long as a great scattered population exists in the country beyond, it will look to St. Paul as its source of supply. It is said that those who once take up their residence in the city never remove.

Twenty years ago St. Paul remained, as it had long been, the outpost of our Northwestern frontier. There was no civilization beyond, except the depots of the fur companies. The brave pioneer merchants who bartered with the half breeds in summer, when the Red River wagon trains came down from Pembina, found leisure, autumn and winter, for manly sport. Trained in the school of frontier experiences, and familiarized with all the soft and harsher features of the border, the lads who are now the middle-aged men of the city became adepts in the field. They carried the gun for pastime and the rifle for personal protection. Gentlemen who sauntered forth on the prairies and bottoms in those days after grouse and snipe were apt to meet swarthy interlopers. Frequent intercourse made them familiar with their tricks and their manners. Unpleasant little episodes taught them to scrutinize distant objects, and to scan closely and study those natural or abnormal phenomena termed "signs." They learned to divine by

the flight of birds and to interpret footprints in the grass. Every turned blade or broken twig had a meaning, and the distant smoke on the horizon was a manifestation. Game was abundant all around, and the hearts of the hunters warmed to the chase. Powder was never burned in vain. No wonder that the sportsmen of St. Paul to-day are among the best in the land. Almost all of the old lads are alive yet, with constitutions like iron, hardened by tough training, and a longevity that winks at tables of life insurance companies. No wonder they made good soldiers in the war, habituated as they were to expedients and emergencies, pot luck and hard knocks. On the grand old meadows around Fort Snelling, and within hail of the sentry, that old frontiersman, Gen. H. H. Sibley, whom the quondam readers of the *Spirit of the Times* will recognize as "Hal-a-Dacotah," has shot woodcock by the bagful. There are Norman Kittson and H. M. Rice, his contemporaries, and Col. Uline, of the Minnesota Cavalry; A. H. Hamilton, now Treasurer of the Sioux City Railroad; Horace Thompson, President of the First National Bank; Reuben Warner; and Wm. Golcher, who made guns for them all; and a score of gentlemen a few years younger, who could tell us of the ponderous strings of snipe and ducks they once brought in from the sloughs on the river bottoms, the ruffed grouse from the ridges, and the deer from the adjacent timber and open prairie. They would smoke up a twenty-five pound canister of "Vanity Fair" tobacco before their yarn was fully spun. It is somewhat different now in these days, when the locomotives of half a dozen railway lines rumble out continually, and all the country round about is daily walked over and beaten up by the resident gunners of a city which has become metropolitan; yet there is game to be found near by, and the knowing ones will guarantee you a bag of birds at the proper season within a few miles of town. For a day's shooting this is well enough; but sometimes a man feels like several days, and then he is seldom at a loss what place to choose, as the several railway lines afford him quick transportation to choice localities.

Some of the more wealthy and devoted sportsmen of St. Paul keep a complete wagon outfit constantly on hand, sending it in a box car hither and yon at will. E. R. Warner, Esq., Superintendent of the American Express Company, has ingeniously transformed an express wagon into a hunting cart, with sections for ice, provisions, and equipments; racks for guns, lockers for ammunition, and a canvas-covered kennel large enough for half a dozen dogs. A canvas awning provides shade, and side curtains can be buttoned on for protection against rain. The seats are fitted with easy springs, and the sides are so low that it is easy to mount and dismount, which is a great advantage on a hunt for grouse.

Placing this wagon and team upon one of the trains of the Sioux City Railroad, we followed the beautiful valley of the Minnesota River for several hours, and then crossing a belt of heavy timber which bisects the State, ran out on an open prairie and halted at a town called Madelia, where we were well accommodated. Large farms and pretty towns of varying population had lain all along the route, and the numerous grain elevators at the way stations told of the natural productiveness of the land. Until we emerge from the timber we have seen little that strikes the stranger as novel; but on the prairie an observant person will notice that the pretty groves which surround the farm houses and cottages, and the trees that line the streets of the villages, have all been planted out. Very little native shrubbery is seen except at long intervals, or upon the banks of the creeks. Not far from Madelia is a pretty stream called Wahtonouka, and a little further east is a private demesne known as Crystal Lake, which is one of the prettiest residences imaginable, embellished throughout with discriminating taste. These beautiful lakes of pure water are characteristic of Minnesota, and are so frequent that they constitute one-thirty-sixth part of the entire area of the State. Given a lake and a rolling prairie one can lay out and perfect a charming home in the few years which are required for his transplanted trees to grow. Sometimes a ledge of rock crops out, and this gives additional advantages for landscape gardening. Not far east from Crystal Lake there is a beautiful fall of water over a rocky ledge some sixty feet high, with picnic grounds in the neighborhood. With these little reminders I prod my Eastern readers to remember that the prairies I write of are no longer desert and unoccupied wastes. Farms extend clear across the State on the lines of railroad, and homesteaders have taken up sections at considerable distances from these lines. To the traveller by rail little remains to indicate crudeness or primitive condition. There are comparatively few fences on the prairie, wood being scarce; but hedges are substituted with great advantage to the landscape.

Wandering apart from the railroad, the grouse hunter seeks the vicinity of the most distant grain fields where the birds are least liable to be molested. The grain having been cut, and no fences to intercept, he drives his wagon pretty much at will from native grass to stubble, conscientiously avoiding standing corn and acres of newly-plowed ground, doing no damage whatever, and seldom meeting objection from the farmers. The farms are not always contiguous to each other by any means, and houses are frequently miles apart. The prairie here is more undulating than in the northern part of the State, and the sweep of outlines more diversified. One roves listlessly from mound to dell, now dropping into an interval which wholly shuts out the view, and anon mounting a knoll from whose summit billows of grass, like swells of ocean, surge off to the horizon in all conceivable curves, peacefully islanded here and there with drooping elms and clumps of black-jack

or traversed by lines of stately cottonwoods and willows which mark the courses of the creeks. In the bottoms the grass is rank, sweeping to the armpits; but the prairie grass is for the most part short and thickly mixed with weeds and flaring flowers which emit a pungent aroma. Mouse-colored gophers heap up their mounds of earth over every square rod, while sand rats and crawfish burrow in the intervening spaces. These gophers go for the farmers' corn with insatiable rapacity. They have natural pockets on each of their chaps, which they cram with the grain until they can't see. Then they carry the grain to their burrows and go for more—and seldom go far—do these gophers. In such large proportion do they contribute to the sustenance of the hawks which constantly hover about, that it is doubtful whether it be expedient to destroy the hawks for the sake of saving the grouse. As the wagon jounces along, meadow larks, flickers, sparrows, and ring-doves fly up from the cover, and presently settle down again. Meanwhile the hawks, of several varieties, which have been idling overhead, take advantage of the momentary disturbance to make successful swoops. Occasionally we let off a cartridge at one of them. Old dogs do not like to retrieve wounded hawks. The *calot* which usually attaches to such an achievement is embarrassing to their native modesty. Sportsmen regard hawks as belonging to that class of trifles which should be banded with gloves.

We often read of the hazy atmosphere of the prairies, but the word *haze* has no application. On the contrary, the air is so transparent that distant objects seem close by; while in heated midsummer the lower stratum is often disturbed by refractions and wavelets of light, such as one detects on the outside of a stove, which have the opposite effect of making near objects appear distant, though not shadowy or indistinct. Looking off on the horizon, where the green meets the blue, we observe a belt of timber apparently miles away. Its lines are toned and softened into the semblance of clouds, yet as tangible and intensely vivid as the shapes which the sunlight throws through the stained glass windows of a church, or the prismatic hues of the rainbow. Gazing intently at it, we discover a tawny animal of immense proportions, half the height of the trees, coursing along the edge of the timber. Almost before we have time to conjecture or become astonished, we have arrived at the spot and find that the creature was only a small coyote, or prairie wolf, and the gigantic timber merely a strip of gnarled and stunted black-jack. Again, surmounting a knoll, we overlook a valley of apparently great extent, sweeping gracefully to a parallel eminence opposite, and filled with such shadowy repose and softened hues that Tom Moore's Vale of Cashmere seems no longer an oriental dream. On the farther elevation are objects whose outlines seem sharply defined, but the filling of the picture is so blurred and blended that we cannot determine whether it represents a large barn or a haystack of enormous size. A few minutes' walk, however, will bring us to a small bush or pile of weeds! In the far distance is apparently a sandstone cliff, flanked by grassy bluffs of richest green. When we reach it, we find only a patch of coffee-color'd marl cropping out of a rise in the prairie. In like fashion the golden stacks of grain on the tops of knolls gleam in the sun like sulphur-capped cones of volcanoes. And so, throughout all the landscape, one continually meets the like phenomena. A few rosin weeds or mullein stalks a furlong off may take the semblance of a clump of trees, or a horse and buggy be transformed into an army wagon or load of hay. When the waves of refracted light are multiplied the true mirage results, and then every object becomes distorted out of all true character. One of the most comical effects is produced by a flock of cranes dancing. It is "too funny for anything." Stage shadows are nowhere. First, their legs get so mixed up and interlaced that each pair seems to belong to the whole flock. Presently the legs begin to thrust out and parry, like a hand-to-hand combat with swords; heads and bodies swell into balloons; out steps one leg and kicks them all into collapse; the shapeless mass resolves itself into a trio of donkeys with huge, flapping wings, and these wings presently change to panniers; one of the donkeys kicks up behind, turns a somersault and swallows himself; the rest follow suit, and all blend into an elephant with twenty pairs of legs; then cranes' necks begin to stretch up out of the body, and keep on stretching until they get so thin that they break off; legs turn to a file of soldiers, front dress, eyes right; all simultaneously bring their hands to their hips and lift themselves into the air by the waistbands; elbows grow into huge wings, and as they fly off they change back into the cranes which have taken flight at our approach.

Cranes are wary birds and difficult to approach, and since they make a most palatable dish sportsmen are proud to count them among their trophies. Their flesh is white, and especially toothsome when boiled or made into a pot-pie. Various are the subterfuges and stratagems employed to circumvent them. The best method is to drive as near as possible without seeming to observe them—not directly, but with a detour—and, when the wagon is prudently near, let one or two of the gunners quietly drop off behind, while the wagon passes along out of distance. By carefully crawling through the grass, the gunners can sometimes approach within fair gunshot.

It was as hot as Tophet when we beat up the prairies around Madalia. The sky was cloudless, the thermometer marking 97 deg. in the shade, and the wind blowing a red-hot gale from the southwest. It was more tolerable in the shade under a lee than in the full sweep of the wind. The birds, however, were more numerous than we had found them before, and we scored twenty-four brace for our united bag. Nearly

all were driving birds, scooting down wind like rockets, and affording the most sport I have ever known pinnated grouse to do. Pinnated grouse lie closer to a dog, and are not so swift flyers as the sharp-tails or white-breasted grouse. The range of the latter is from the northern boundary of Kansas to Alaska; of the former, from southern Minnesota to Texas. The first are found in the scrub chiefly, the second in grass. Both species are not often bagged on the same range. To get our birds we scattered wide, each marking down flocks or stragglers as they flew far and near, and seldom missing a count. It was terrible work for the dogs, who would have suffered more but for a crystal runlet that wound through a part of the territory where we hunted. For the most part, however, they had to depend on the wagon butt, and the delicious and refreshing ice, whose supply did not give out. In very hot weather sportsmen should apply small pieces of ice to the tops of their dogs' heads. At such times pointers are always thankful that they were not born setters; they don't take much stock in "fine feathers."

One of the most interesting phenomena of the prairie is the "tumble-weed." In the growing summer time it is a goodly bush, with branches numerous, thick, succulent, and spreading; but in the autumn, when the sun has ripened the grasses as well as the grain, when the earth is parched and dusty, and seeds rattle in the pod, it becomes the driest and scraggiest of weeds. Not a particle of moisture remains in its fibres. Its once parsnip-like root shrinks to a mere sinew, and the passing winds of September scurrying over the plain catch it by its withered fronds and whisk it around and round until the root wears itself loose in its hole, and the thread-like extremity clinging to the moister ground below, alone holds it in its place as the anchor holds a storm-tossed ship. As gale after gale passes, feebler becomes its fastening, until finally it breaks loose altogether and goes tumbling over the prairie, grasping the golden rods and mullein-stalks with its claw-like fingers, or temporarily clinging to other weeds more firmly rooted. But its career is as fatid as the waif on the rapids of Niagara. Another whiff of wind tears it loose again, and away it goes, streaking it like mad, and rolling itself into a ball, gathering other weeds as it rolls and growing rapidly and enormously by constant accretions, until at length it has reached ten feet in diameter! Its specific gravity is lighter than cork's, but it is tremendous for size; and as it comes bowling and bounding over the grass at locomotive speed, borne toward us on a 2:40 blast, frightful in its threatening aspect, tell me what unaccustomed horse can be found so staunch as to keep his tracks in the ghostly demonstration? One might imagine the boulders of the glacial system let loose on a frolic, or Titans and Son, of Anat rolling ten-pins down the shores of Time! To see a vast area of prairie in this commotion, with tumble weeds rolling far and near, one feels as if prophecy were being fulfilled, and "the heavens and earth were rolled up like a scroll." Had the tumble-weeds been a little riper and the gale a trifle stronger, we would have had to do our hunting under disadvantages such as I have portrayed.

I do not care to occupy space with a repetition of the oft-told story of a grouse hunt. Those who have been there know how it is themselves. Those who don't know but wish to, can learn the lesson in the papers and books, I will only say that I found two articles of rig most convenient. One was a "76 shooting coat," made by George C. Henning, of Washington, D. C., in which I comfortably carried my seventy-six shells; (no other contrivance so satisfactory;) the other a set of leather thongs fastened to a waist-belt, which, fashioned into loops, carried dead birds conveniently by the heads until they could be deposited in the wagon. I have used this method for years. It is better than pockets or game bags, whichumber and chafe.

We spent but one day on this lay, as the next morning threatened rain, which finally came in torrents in the afternoon. However, we improved the washing hours by shooting ruffed grouse on the Minnesota bottom, near a station where the early train dropped us, the birds being fairly numerous and affording good sport. In the evening we retraced the remainder of our journey back to St. Paul.

My next letter will conclude this series. I make the announcement because I fear my readers will think that, like Tennyson's Brook, I shall babble on forever. HALLOO.

#### OUR WASHINGTON LETTER.

DUCK SHOOTING ON THE POTOMAC—SINK BOXES AND BLINDS—WILD WATER-FOWL AND THEIR FOOD—COVES AND CREEKS—BIG GUNS AND FRIGHTENED BIRDS, ETC., ETC.

[FROM OUR OWN CORRESPONDENT.]

WASHINGTON, D. C., JAN. 5, 1878.

The Potomac River from this city to its mouth, a distance of about one hundred and ten miles, with the numerous creeks and inlets on both the Maryland and Virginia shores, has always been a favorite resort for water-fowl during their spring and autumn migrations, but more especially at the latter season, when they seem to be attracted to these waters by the abundance of food found on the flats and shoals where they stop for rest and to satisfy the cravings of hunger caused by their protracted flights through more northern regions. For some years past the numbers of these fowl have steadily decreased from several causes, one of which is the constant warfare against them, not on the part of the few who indulge in aquatic shooting for pleasure, but the hundreds who shoot them for profit, and supply the markets of Washington and

neighboring cities. The big guns used by such persons, with half a pound of powder and several pounds of shot for a single load, not only carry death and destruction among the ducks, but frighten off all within miles of them. The new game law of Virginia makes it unlawful to kill any water-fowl except with a gun that can be raised at arm's length and fired from the shoulder without a rest. It is to be hoped that the law will be rigidly enforced. Another cause of the decrease in the number of our water-fowl is the gradual destruction of their food, and especially the *Vallisneria americana*, or wild celery, upon which the far-famed canvas-backs, red heads, bald pates and some other varieties subsist while in this section of the country. A few years ago a favorite feeding ground for these ducks on the James River, where the wild celery was abundant, was entirely destroyed by a season of cold weather when the ice formed to an unprecedented thickness for that climate, and the stalks of the plant, which grow from six to eighteen inches in length, were thus enclosed in the ice. A sudden change in the temperature and warm rain caused a rapid break up of the ice blockade, and the celery being easily uprooted was torn from its bed by the ice and washed out of the river by the freshet. The next seasons there was hardly a stalk of this marine plant to be found where it was so abundant for years previous, and consequently the ducks deserted that section.

I have on many occasions been deeply interested in the reminiscences of old sportsmen, who can no longer stand the hardships of aquatic shooting, but who, twenty, thirty and even forty years ago, enjoyed that sport on the Potomac when the birds were so plentiful that they covered the surface of the water for miles; but they have steadily decreased in numbers year after year, until this season we have scarcely any ducks on the river, and those who have made a business of shooting them for market have not been well rewarded. I am inclined to the belief that the exceedingly mild winter we have had up to this time have retarded the birds in their southern flight, and that they will be more plentiful after we shall have had a brief season of cold weather. As the temperature has not yet been below the freezing point, the ponds and creeks all over the country are open, and the birds have not been forced to resort to the large rivers, as they often are when smaller bodies of water where they feed are closed by the ice. As to the delicious canvas-backs, very few have made their appearance, but some mallard, green and blue-winged teal and other species have been killed.

#### FAVORITE SHOOTING POINTS.

The Potomac, one of the most beautiful rivers of the North American continent, off the city, is about one mile in width, but it gradually expands until we reach its mouth, where it is twelve miles wide. From here to Aquia Creek the water is fresh; about that point it begins to get brackish, and a few miles further we come to Blackiston's Island, where it is quite salt. I might fill a column and weary the thousands of readers of FOREST AND STREAM should I attempt to name the many famous shooting points on the river. There are any number of persons who are fond of the sport of duck shooting, although the exposure from cold and wet is often very disagreeable, and unless the sportsman be robust and healthy he had better keep out of the blinds. To those blessed with a strong constitution, and who are able to stand severe weather, the sport excels that of field shooting. On the Virginia side of the Potomac the nearest feeding ground of the ducks is in an extensive cove just beyond Gravelly Point, and near the Four-Mile Run, half way between this city and Alexandria. A short distance below Alexandria is Hunting Creek, another favorite resort. Soon we reach Mount Vernon, with its extensive flats covered with grass. Doag Creek, Gunser Cove and Craney Island are the next places, and this brings us to Ocoquanaw Bay, where the *Vallisneria* is plentiful, and canvas-backs are generally quite abundant in that locality. Freestone, Cockpit and Brents Points are favorable refectories for shooting the ducks as they pass from one cove to another. Aquia Creek, Marlborough Point, Upper Machodoc Creek, Rosiers Creek, Bluff Point, Faime's Point, Mattox Creek, Curwinan Bay, Nomini Bay, Hollis Marshes, Elbow Point, Lower Machodoc River, Ragged Point, Jackson Creek, Yeocomico River, and the numerous inlets and coves at that vicinity, Travis Point, Coan River, with its creeks a shoals, Presley's, Hall's and Cubitt's creeks, and finally the Little Wicomico River, emptying into the Potomac a few miles this side of the Chesapeake Bay, are all well known as desirable feeding grounds for the water fowl frequenting this sect.

On the Maryland side of the Potomac, commencing at Oxen Creek, between this city and Alexandria, and then in Broad Creek just below that city, ducks are always found in season. Following down this side of the river we reach Hatton's Point, Piscataway Creek, Chapman's Point, Pamunkey Creek, Mattawoman Creek, Chicomuxen Creek, Wade's Bay, Smith's Point, Lower Thomas Point, Nanjemoy Creek, Blossom and Windmill Points, Port Tobacco River, Pope's Creek, Lower Cedar Point, Picowaxton Creek, Swan Point, Neal's Creek, the Wicomico River, St. Catharine's Sound, Bullock's, St. Catherine's, St. Margaret's and Blackiston's Islands; and then St. Clement's Bay, Kaywood's and Higgin's Points, St. George's Creek just below Piney Point, the St. Mary's River with its numerous creeks and inlets, Calvert Bay, and finally Point Lookout at the mouth of the river. Along the whole course of the river, in the creeks and shoal waters upon either side, the ducks, geese and swan find the various marine plants and grasses, water insects, crustacea, etc., upon which they feed and grow fat.

## DUCKS AND THEIR FOOD.

Generally the ducks begin to arrive in this locality from their breeding grounds in the North, between the middle and latter part of October, when some of the smaller species, such as the buff-head (*Bucephala albeola*), make their appearance, and they are in the course of four or five weeks followed by the mallard (*Anas boschas*), dusky duck (*Anas obscura*), pin-tails (*Defila acuta*), bald-pates (*Mareca americana*), green-winged teal (*Querquedula carolinensis*), blue-winged teal (*Querquedula discors*), red-head (*Fuligula ferina*), and, lastly, the noted canvas-back (*Fuligula valisneria*); but this duck never becomes abundant until severe weather is experienced. The swan (*Cygnus americanus*) and geese (*Branta canadensis*) also arrive about the same time as the canvas-backs, and soon distribute themselves over the Chesapeake Bay and neighboring rivers emptying therein. When the birds first arrive they are very poor, and their flesh has no desirable flavor on account of their protracted flights. A few weeks' rest in this section, however, and the abundance of food which they procure, soon puts them in excellent condition, and they become tender and juicy.

The *Valisneria*, or duck grass as it is called here, seems to be the favorite food not only of the canvas-backs, but red heads, bald pates, and some other species. I have often observed them feeding together where this plant grew, though I have never seen them in company during their flights. Old sportsmen here, with whom I have conversed on this subject, declare that the red-heads and bald-pates especially are the most daring robbers in the duck family, and frequently attack the canvas-back when he has returned from the bottom with the duck-grass which he has uprooted, and plunder him of all his spoil. Others express the opinion that the canvas-backs uproot the grass and consume the root thereof, which is the most tender part, and that the other species usually found feeding with them eat the stalks and leaves. That the canvas-backs and red-heads especially partake of similar food is evident from the flavor of these two species, which is so much alike in every respect. Indeed, there are many persons claiming to be sportsmen who are not able to distinguish a canvas-back from a red-head after the feathers have been removed or the two served upon the table. True, the canvas-back is the larger duck of the two, as a male bird of this species will weigh very often as much as three and a half pounds, or even more, while a male red-head rarely exceeds two and a half pounds in weight.

## MANNER OF SHOOTING THEM.

Of course there are various means employed to kill the ducks by those who wage a warfare upon them for pecuniary gain, the principal one of which is the use of the immense ducking gun to which I have briefly alluded. This piece of ordnance, with a barrel from five to seven feet in length, and a muzzle of two inches in diameter, is affixed to one end of a skiff, and the gunner, lying down therein, paddles cautiously upon a flock, with very short paddles made for that purpose, and which work entirely beneath the water. When within 200 or 250 yards of the birds, he fires upon them, with his load of nearly half a pound of powder and three pounds of shot. The report of his gun frightens all the fowl within a mile, and the recoil from the explosion sends skiff and gunner back fifty feet; but there in front of this death-dealing concern lie many birds dead and others wounded, but the gunner, with a gun which can be discharged from the shoulder, soon pursues and captures them.

The market hunters also trap the fowl by means of nets, though they can only prosecute this mode of capture in creeks and inlets where the birds are not disturbed by the guns. These nets are staked out, covering the surface of the water to the extent of a quarter of an acre or more, and beneath them is placed a bountiful supply of corn. Rows of corn are then strewn in the surrounding water, all leading to the net, and the ducks, finding these rows of corn, keep diving for and consuming it until they get beneath the net and are caught.

Sportsmen who enjoy the duck shooting of the Potomac usually do so from blinds, though many have rare sport upon different points of land along the river, dropping the birds in their morning and evening flights from one feeding ground to another. This shooting, however, depends to a great extent upon the velocity and direction of the wind. If it blows with the same force and on the point where the sportsman may be located, providing it lies in the course of the ducks, he is apt to have good success. The birds always avoid a near approach to the shore, but when the wind blows toward these points they are often compelled to pass within easy shot, and are thus dropped while on the wing.

Shooting from blinds is practiced to a great extent along the entire length of the river, and many birds are killed by sportsmen in this manner. The blind is generally constructed of old brush, fence rails or logs, sometimes upon points of land or in marshes over which the fowl pass, and at other times on the flats at some distance from the shore, but always early in the season, so the ducks will become used to it. When placed upon the flats the blind is always made of brush, and large enough to conceal one or two sportsmen and a skiff. The decoys are anchored in the vicinity of this blind, where they attract the attention of the birds passing over from one feeding point to another, and as they descend to join the supposed flock upon the water the concealed sportsmen often have beautiful shots. Sometimes the birds are allowed to alight among the decoys, but the true sportsman drops them on the wing just as they hover over the decoys, fifteen or twenty yards above the surface of the water.

The shooting or sink box is not regarded as legiti-

mate by the true sportsman. It is used by the market hunters, and consists of a long, narrow, coffin-like arrangement, in which the gunner lies on his back. This box has attached to it flanges or broad leaves hinged to it at the top, which float upon the surface of the water and prevent the swell from washing into it or the box sinking. The decoys are arranged around it just as around a blind, and as the birds descend to join the flock the gunner arises and gives them both barrels. These sink boxes are generally towed upon the flats, and there anchored with the gunner concealed, while his comrade is secreted upon the shore with a light skiff to pursue and capture wounded birds which may be dropped. Years ago there were a number of points on both shores of the Potomac lying in the course of the birds as they passed from one feeding ground to another, and many birds were killed on wing in a true sportsmanlike manner as they passed over these points. It is a well known fact, however, to all familiar with the habits of wild water-fowl, that the constant disturbance of them on favorite feeding-grounds will cause them to forsake such places and seek others. The interminable pursuit of them with boats upon their feeding haunts has, to a great extent, driven them from many desirable coves, and therefore the shooting points over which the birds formerly passed in their flights from one cove to another no longer afford desirable places for dropping them.

The ducking season on the Potomac usually opens about the middle of November, and about that time mallard, dusky ducks, green and blue winged teal, bald-pates, and sprig-tails are plentiful. As the weather begins to get very cold, blue-winged teal and bald-pates leave for a more southern climate, but canvas-backs make their appearance and soon become plentiful. Mallard, dusky ducks, green-winged teal, and sprig-tails remain longer, and, indeed, if the weather is not too severe, many tarry here all the winter. Even when the river is closed by ice there are hundreds of spriggy places in the marshes and creeks on either shore which do not freeze, and here the birds generally find food.

THE CANVAS-BACK (*Fuligula valisneria*).

Of the many varieties of ducks frequenting the Potomac, of course I rank the canvas-back first, as it acquires a most delicious flavor here from the wild celery upon which it feeds. In some other localities, where it cannot procure this food, and is forced to live upon water insects, seed, berries, etc., I believe it loses this flavor, and is held to be a very common bird. The Chesapeake Bay, Susquehanna, Potomac, James and other rivers emptying into that body of water, are the favorite resorts of the canvas-back on the Atlantic coast. They extend their winter migrations to more southern waters, and are distributed more or less abundantly throughout the interior. The fall migration of the bird, I believe, is principally from the north-west and over the interior of the country, where it is distributed according to the nature of the weather. Some ornithologists have found it breeding in our Western country as far south as latitude 47 degs.; in the Cascade Mountains of Oregon and in the Rocky Mountains. Its breeding grounds extend from that section far into Alaska and the north. It does not breed in any of our Eastern States.

Audubon, who seems to have studied the habits of the canvas-back in New Orleans, when he was there in 1837, does not speak very favorably of the delightful flavor of this bird. After referring to the species commanding a price of two dollars a pair, he says: "This enhancement of its value I look upon as having arisen from the preference given to it by the epicures of our middle districts, who have strangely lauded it as superior to any other duck in the world. Previous to that time, in the South, they were regarded as being poor, dry and very fishy, in short not half so good as mallards, or blue-winged teal. With this I cordially agree; for there, at that season, they are not better than represented."

No doubt the birds were unable to procure the *Valisneria* or wild celery, and therefore did not excel any of the other species in flavor.

The canvas-back is a rapid flyer, and it takes an expert marksman to drop him. If winged only and brought to the water he is an expert diver, and will frequently make his escape by diving and moving under the water toward the shore, where he will seek shelter and may recover from the wound, provided he can escape his natural enemies—minks, gulls, hawks, etc.

RED-HEADS (*Fuligula ferina*).

Next to the famous canvas-back comes the red-head, and though it is smaller, equals that duck in flavor, as it feeds upon the same marine plant when in this section. In the West I believe it lives on various water insects, frogs, grain, berries, and such food as it can get, and I suppose does not have its delicious flavor in that locality. Red-heads seem to be of a sociable disposition, and are often found in company with other ducks, especially the canvas-backs and bald-pates, and in Florida I am told they are often seen with mallards, spoon-bills and other species. It is fond of both fresh and salt water, and is an expert diver. It breeds in the far north, and like the canvas-back its migrations are overland rather than by the seaboard. The weight of a full grown male red-head is about a pound and a half less than that of a full grown canvas-back.

As I have yet much to say respecting the habits of the mallard, teal, pintails, bald-pates, geese and swan found on the Potomac, I will endeavor to interest your many readers in my next letter.

R. F. B.

—A friend in Spottsylvania, Virginia, who probably thinks our head is too big for our body, has sent us an Indian arrow-head.

## GAME PROTECTION.

NATIONAL SPORTSMEN'S ASSOCIATION.—The annual meeting of the National Sportsmen's Association will be held at Wilkesbarre, Pa., June 11. Secretaries of State Sportsmen's Associations are requested to send their addresses to Benj. F. Dorrance, Esq., Secretary of the Pennsylvania Association, Wilkesbarre, Pa.

THE PHILADELPHIA ASSOCIATION AT WORK.—The grand jury have found a true bill against Philip J. Lauber, charging him with selling game out of season. The prosecution is brought by the Sportsmen's Association, and is the first of a number which are to be instituted against restaurateurs.

PROTECTION OF GAME.—The annual meeting of the New York Association for the protection of Game was held on the 14th of January at the residence of Mr. Charles E. Whitehead, Mr. Clinton Gilbert presiding. The following resolution in reference to the sale of venison was unanimously adopted:

That, after reading the petition of the importers and dealers in venison in this city, the club consider it unwise to attempt to extend the time within which venison can be sold in this State, and the counsel of the club is directed to prosecute all persons found after the 21st violating the law on this subject.

Mr. Whitehead read a communication in reply to charges made against certain parties trapping wild duck on Shinnecock Bay. The accused parties denied that duck trapping was practiced on the bay. The feasibility of altering the game laws in relation to the shooting of woodcock, to make it commence on Sept. 1 instead of Aug. 1, as at present, was discussed. It was deemed inadvisable to make any effort to amend the law on that subject. The Treasurer showed a balance of \$578.20, and in United States bonds of \$4,600. Mr. Whitehead, counsel of the association, showed that during the year twelve suits had been brought for violation of the Game laws. The officers of the association for the ensuing year are: President—Robert V. Roosevelt; Vice-President—J. H. Gaultier; Counsel—C. E. Whitehead; Secretary and Treasurer—J. M. Outburt; Executive Committee—Henry T. Cary, Alfred Wagstaff, Jr., W. M. Fliess; Committee on Game Laws—Mr. Alfred Wagstaff, D. L. Luddington, and R. B. Roosevelt.

KILLING DEER FOR THEIR SKINS.—At a meeting of the California Senate Committee on the revision of the Game law, it was stated by a member of the Sportsman's Club that two hunters had been shooting deer for two years past in the eastern counties, under engagement to a glove manufactory in San Francisco. Hundreds of deer were slaughtered and their carcasses left for the coyotes and birds of prey. This wholesale killing has nearly exterminated the deer tribe in that part of the State.

POUND NETS IN STATEN ISLAND WATERS.—The New York and Staten Island fishing clubs have given the impulse to the movement against the use of pound nets in New York State. Their counsel, Messrs. Morgan, J. O'Brien and J. Stillman, appeared last Friday before the Board of Supervisors, of Richmond County, asking for the pounds and a new regulation concerning the use of fykes and gill-nets. Counsel urged that as, under section 32 of the laws of 1877, the Board of Supervisors has power, it should entirely prohibit the use of pounds in the waters surrounding Staten Island and the rivers approaching thereto; and also that the use of fyke and gill-nets be forbidden from the 15th day of August to the last day of December in each year, and that no fyke, seine or gill-net shall have meshes of less than four and one-half inches in size. The matter was referred to a special committee, with instructions to draft such regulations as will remedy the evil complained of. This is but the initial step in a general movement, and soon King's, Queen's and Suffolk counties will follow Richmond's example.

ACCLIMATIZATION SOCIETY.—The annual meeting of the American Acclimatization Society was held at the New York Aquarium last Wednesday evening. Fourteen new members were enrolled. The officers elected for the ensuing year were President, Eugene Schieffelin; Vice-Presidents—A. H. Green, William H. De Lancy, R. B. Roosevelt, W. H. Schieffelin, P. Van Zant Lane; Secretary, John W. Green; Corresponding Secretary, Seymour A. Buncce; Treasurer, Edward Schell. Council—J. C. Mills, John Schuyler, Henry Keteltas, J. W. Fellows, H. C. Pell and W. A. Conklin.

## EDITOR FOREST AND STREAM

It is not generally known and it is still less appreciated, that the waters of central New York are most magnificent in proportion and exceedingly suitable for game fish.

Seneca River, receiving its supply from Canandaigua, Keosauqua, Cayuga, Skaneateles and Onondaga Lakes, besides other smaller lakes and numerous streams and brooks, finally merges with the Oneida River at what is termed Furoe River Point, and thus forming the Oswego River it finds its way to Lake Ontario.

No one can trace the course of these waters, knowing the immense supply, without concluding that they must be suitable for bass, pike, pickerel and other game fish, as they certainly are.

That these waters can be productive of countless thousands of choice fish for the public at comparatively little cost, and at the same time afford abundant recreation for hundreds of sportsmen, there is no shadow of doubt; provided, however, there be given sufficient protection to fish to multiply and attain suitable size.

Under the present deprivations that are annually committed by the use of seines and nets of every description, and especially by catching fish in spawning seasons, the supply is nearly exhausted, and to attempt a day's fishing in these waters with hook and line, is simply a waste of time, money and patience.

It is safe to say that not less than forty or fifty pound-nets, gill-nets and other illegitimate and barbarous ways of taking fish from Oneida Lake (about fifteen miles from Syracuse), have been used by marketmen and resorted to through the entire season of 1877; and even farmers owning land on the banks of this lake as well as other prominent business men residing near, have been engaged in this nefarious traffic and shared in the results: a no appeal, no threats, no inducements are of any avail, and the conclusion seems to have at last been arrived at that the evil must work its own cure by eventually destroying the source of supply.

SYRACUSE, JAN. 7, 1878.

The writer has been credibly informed that it is no uncommon occurrence in the spring, when fish are seeking streams and shallow water to spawn, for these marketmen to take from Onondaga Lake from two to six thousand fish at one haul of a seine. It is probably true that a large portion of these fish so taken are bullheads and suckers, but no game fish is treated with any more consideration.

To describe these several lakes that so largely make Seneca River would extend this article too long; but within fifteen minutes' drive from Syracuse, and almost within its city limits, lies Onondaga Lake, a beautiful sheet of water, deep, clear, and with numerous inlets and some well defined springs nearly in its centre, abounding with the finest whitefish known, and a great variety of other choice fish, including salmon-trout, some thousands of which, placed therein about five years since, have already attained a desirable size.

This lake also, this fall, has been the resort of poachers; not less than forty men at times, and never less than ten, have been taking barrels of fish from it by nets and seines. "Why is this not prevented?" "What is every man's business literally proved to be in this case no one's," and the whole matter seems to have gone by default on the part of those most interested in stopping it.

It is proposed by the "Onondaga County Fishing Club" to definitely know another season whether these outrages shall be continued or prevented.

The "Club" starts with a strong organization, a good and legitimate purpose, and with the approval and moral support of every responsible person in this vicinity, and has been assured of assistance both from our Board of Supervisors and from business men in different parts of the county.

It falls now the purpose will not be abandoned and if it succeeds no better fishing will be found in this State than in Onondaga County.

JONES.

The Rifle.

TEAM SHOOTING

FOR THE "FOREST AND STREAM AND ROD AND GUN" MEDAL. Under the following conditions this journal proposes presenting to the best team, members to belong to some regularly organized association, a gold medal:

Shooting to take place January 23, 1878, at Union Hill Schutzen Park.

RULES AND REGULATIONS.

Each team to consist of twelve men; ten shots per man. Shooting, off-hand; distance, 200 yards, any rifle; open to all clubs or associations.

No person allowed to compete in a team unless he is an active member of the club for ninety days.

Practice from 10 A. M. to 1 P. M. Team shooting to commence at 1 P. M. Targets to be drawn for by each captain of each team.

Entrance fee, \$6 for each team. Ring targets to be used, three-quarter inch rings.

After deducting the expenses for the markers, the balance will be divided to the second and third highest teams.

Shooting to be governed by the Schutzen Bund rules. All teams can enter for the competition at the FOREST AND STREAM AND ROD AND GUN office, 111 Fulton street, city, on or before January 20, 1878.

Captains of teams entered will constitute the committee. We are pleased to state that the following teams will participate in the match for the FOREST AND STREAM AND ROD AND GUN gold medal: A team from the Jersey Schutzen Corps, one from the New York Schutzen Corps, one from the Independent New York Schutzen Corps, and the team of the Zettler Rifle Club. It is likely that from six to eight teams will compete. Mr. John Raschen has kindly consented to act as shooting master.

WHERE ARE THE HELVETIAS AND NEWARKERS?

EDITOR FOREST AND STREAM:

As a German, interested in rifle shooting, I have to thank you for the team match for which you offer a gold medal to the winning men. This offer, on the part of your journal, is fully appreciated by the numerous friends of the FOREST AND STREAM AND ROD AND GUN. I should like to see some purely American teams enter into the match. In generous rivalry it would be quite agreeable for us of the Fatherland to measure our skill with native riflemen. But where are the Helvetias and Newarkers? I should have thought that long ago these two clubs would have entered into the contest. Are they afraid to lose their laurels?

Yours very truly, TRUTON.

THAT STRANGE BALL.—A correspondent, Mr. H. W. Hayt, informs us that he thinks that the strange ball found in the deer (see number of Jan. 3, with illustration,) is a German ball, fired from an Austrian rifle, in use about 1825.

Another correspondent informs us that Mr. Tai, the well-known artist, used to hunt in the waters south of the St. Lawrence with a peculiar heavy bore rifle, which threw a ball resembling the one in regard to which we made inquiry.

Still another correspondent, from Randolph, Mass., thinks the ball was fired from a Sardinian arm, used in 1854. Prior to the Crimean war, the Sardinian army was equipped with two size of rifles—a tige. In time these rifles were replaced by better rifles, and some seven or eight years ago these rifles were placed upon the market. Our correspondent informs us that just such a ball as we describe was used in a Ramoni Besagivieri rifle, and that some of them found a market in Canada seven or eight years ago. We incline to think that our correspondent from Massachusetts is in the right, and that the question of the strange bullet may be considered as ended.

CONNECTICUT RIFLE ASSOCIATION.—The annual meeting of this association was held in Hartford, Tuesday, January 8. Officers were elected for the ensuing year as follows: President, Gen. Joseph R. Hawley; Vice-President, O. Vincent Coffin; Secretary and Treasurer, Frederick T. Studley; Executive Committee, Stephen A. Hubbard, Hartford; Wm. Parker, New Britain; C. S. Davison, Hartford; Henry Woodward, Middletown; J. L. Woodbridge, Manchester. The Association is entirely free from debt, notwithstanding the additions to the range of a new house and of new butts during the year.

BRIDGEPORT AMATEUR RIFLE ASSOCIATION.—The officers of the club are: President—S. C. Kingman; Vice-President—A. B. Beers; Secretary—J. W. Range; Treasurer—T. V. Boyton. It now numbers 45 members.

MASSACHUSETTS.—Medford, Dec. 25.—The Medford Amateur Rifle Association, Bellevue range; 200 yards; off-hand; no sighting. The summary of the best scores is as follows:

Table with names and scores for Medford Amateur Rifle Association. Columns include names and scores for 200 yds, 300 yds, and Total.

In a series of pool matches, the first, off-hand, three rounds, 200 and 400 yards each, was won by H. H. D. Cushing with a score of 18. The score of the second, 200 yards, 10 rounds, was:

Table with names and scores for pool matches. Columns include names and scores for 200 yds, 300 yds, and Total.

At 400 yards, five rounds.

Table with names and scores for 400 yards, five rounds. Columns include names and scores.

MEMOIR.

NEW YORK RIFLE CLUB.—At the practice meeting of the New York Rifle Club, Jan. 10, the following were the scores for the medal given by Mr. C. E. Blydenburgh:

Table with names and scores for New York Rifle Club. Columns include names and scores for 200 yds, 300 yds, and Total.

It was won by Mr. F. Lord on account of an allowance of 22 points. The pistol shooting was the best ever made by the club, the two leading scores, those of C. E. Blydenburgh and Dr. Dudley, of five shots each, at a string measurement target, 12 paces distant, being respectively 2 1/2 and 2 3/4 inches. Four out of the five shots of each score could have been covered with a nickel five-cent piece.

NEW YORK.—Syracuse.—The following gentlemen have been elected officers of Sixth Division Rifle Association: President, Major-General D. P. Wood; First Vice-President, Lieut.-Col. James Manning; Second Vice-President, Colonel J. W. Yale; Third Vice-President, Captain W. Duncan; Secretary, Geo. W. Edwards; Treasurer, Lieut.-Col. George N. Crouse. Finance Committee: Maj.-Gen. D. P. Wood, Lieut.-Col. George N. Crouse, Brig.-Gen. R. M. Richardson, Lieut.-Col. James Manning, Col. J. Dean Hawley. Range Committee: Lieut.-Col. James Manning, Lieut. Geo. W. Edwards, Captain John A. Nichols, Lieut.-Col. Rhesa Griffin, Captain Paul Birshmeier. Prize Committee: Col. J. W. Yale, Captain Wm. Duncan, Lieut. George W. Edwards, Captain M. C. Pierce, Hon. F. E. Carroll, A. C. Chase, Esq., F. B. Klock, Esq.

WAVERLY (N. Y.) RIFLE ASSOCIATION.—The following scores at 1,100 and 1,200 yards were made Dec. 30, without sighting shots (possible 10 at 1,100 yards, 25 at 1,200):

Table with names and scores for Waverly Rifle Association. Columns include names and scores for 1,100 yds and 1,200 yds.

YORKVILLE RIFLE COMPETITION.—Competition for the champion badge, January 12, at Washington Park.

Table with names and scores for Yorkville Rifle Competition. Columns include names and scores for 200 yds, 300 yds, and Total.

Mr. J. R. Grolman's record of 66 is excellent. The club will hold matches every Friday evening.

YORKVILLE RIFLE CLUB.—The following scores were made on Jan. 1, at the third competition, Paulding match, at 100 yards, reduced Creedmoor target of the Yorkville Rifle Club:

Table with names and scores for Yorkville Rifle Club. Columns include names and scores for 100 yds and Total.

A few more made an average of less than inners (3); their names and scores are omitted. Six entries to this match were post-entries. Mr. J. L. Paulding has all the club trophies in his possession now.

SYRACUSE.—On the 16th of January the Amateur Rifle Association and the Blydenburgh Rifle Club, had a match at the range of the former. Following is the score:

Table with names and scores for Syracuse Rifle Association match. Columns include names and scores for 200 yds, 300 yds, and Total.

Another match is to follow.

PROMENADE CONCERT OF THE TWENTY-THIRD REGIMENT, N. G. S. N. Y.—This well-known regiment will give a promenade concert and rifle match on Saturday evening, Jan. 26, 1878, at the armory, Clermont avenue, near Myrtle, Brooklyn.

The combination of music and rifle will be novel and doubtless pleasing. We have to return our thanks for the tickets sent us.

CONLIS'S SHOOTING GALLERY.—After a series of seven competitions the Marksmen's Badges were won last Monday evening, Jan. 14. Nearly 100 persons shot for the badges. The badges, four in number, were offered as follows: The first to be won by the best total score; the second, three points; the third, five points, and the fourth, eight points less than the best total score. The badges to be won three times before becoming the final property of the winners. The conditions were: Weapon, rifle, 22-cal.; position, off-hand; targets, 200 and 300 yards, class reduced for the distance; rounds, seven. Creedmoor rules to govern. Highest possible score, 70. Of the seven competitions the first took place Nov. 26. We give winners of badges and scores:

First Badge, 200 yds, 300 yards, Total. 1st Competition, F H Holton... 33 30 63. 2d " " A J Howler... 33 30 63. 3d " " P Fenning... 34 33 67. 4th " " M B Engel... 33 32 65. 5th " " C A Cheever... 33 34 67. 6th " " B Blydenburgh... 32 34 66. 7th " " P Fenning... 33 32 65. 8th " " P Fenning... 34 34 68.

Table with names and scores for First Badge. Columns include names and scores for 200 yds, 300 yards, and Total.

Table with names and scores for Second Badge. Columns include names and scores for 200 yds, 300 yards, and Total.

Table with names and scores for Third Badge. Columns include names and scores for 200 yds, 300 yards, and Total.

Table with names and scores for Fourth Badge. Columns include names and scores for 200 yds, 300 yards, and Total.

The winners of the Marksmen's Badges last year were as follows:

Table with names and scores for Marksmen's Badges last year. Columns include names and scores for 200 yds, 300 yards, and Total.

ZETTLER GALLERY.—The Zettler Rifle Club held their weekly match at 207 Bowery, January 8. Conditions, 100 feet, off-hand, Creedmoor target. Possible, 50. The following are the scores:

Table with names and scores for Zettler Gallery. Columns include names and scores for 100 yds and Total.

NEW JERSEY RIFLE ASSOCIATION.—The Board of Directors of the New Jersey Rifle Association held a special meeting at the rooms of the National Rifle Association on the 10th inst., Col. W. H. De Hart, the vice-president, in the chair. Articles of incorporation of the association were reported which were adopted, and the Law Committee was authorized to present them to the Legislature. Major Fulton, on behalf of the committee on securing a range, reported that he had examined a tract of land belonging to the Erie Railway Company, lying west of the Bergen Tunnel, which could be secured for a nominal sum, as it was entirely unproductive, and the company would be glad to dispose of it to the association. The length of the tract was 5,280 feet, was 3,000 feet across its widest, and 480 feet in its narrowest part. The line of fire would be toward the northwest. The greater part of the tract was dry ground, and a range of 4,000 feet could be had, while the greatest range which would ever be required would be 1,200 yards. The range was accessible by two lines of horse-cars from Jersey City, by the Brooklyn Annex boat, the Newark and New York, Delaware, Lackawanna and Western, Northern, Midland and Erie Railroads, and no abutment would be necessary. The report was accepted.

LONG RANGE SHOOTING.—The San Francisco Long-range Club have perfected arrangements for inaugurating a series of monthly contests over their 1,000-yard range at Bay View, to take place on the first Saturday of each month, the first contest coming off 5th inst. Major J. W. Laird will present a gold champion badge, with a \$100 diamond in the centre. The badge is to become the individual property of any one who wins it four times—not necessarily consecutively—but between the first match and the end of the year. Should it not be won four times by one person, then at the last meeting of 1878 it will go to the marksman who has won it the greatest number of times; or, if two or more tie, then the ties shall be shot off. The San Franciscos are now fully organized, having leased the ground necessary for a range at Bay View.

CALIFORNIA.—Germania Rifles.—In a late contest of two teams at San Miguel, between the Brockhoff and Obermeyer teams, the first was the winner by a single point. The following are the scores:

Table with names and scores for California Germania Rifles. Columns include names and scores for 200 yds, 300 yds, and Total.

The Summers had a practice with the following good scores:

Table with names and scores for Summers practice. Columns include names and scores for 200 yds, 300 yds, and Total.

Table with names and scores for Summers practice. Columns include names and scores for 200 yds, 300 yds, and Total.

**SIR HENRY HALFORD EXPERIMENTING.**—Sir Henry Halford writes to the *Volunteer Service Gazette* that he will shortly lay before its readers a full report of experiments he is making "between English and American rifles."

**SERGEANT FERGUSON'S SPEECH AT INVERNESS.**—From the *Inverness Advertiser* we learn that Sergeant Ferguson, of the English team, made a capital speech on the occasion of a total abstinence society meeting, of which he is a leading member. A handsome gold medal was presented to Sergeant Ferguson as a remembrance of Mr. Ferguson's services in the Highland Rifle Volunteers. The Sergeant, referring to the Creedmoor contest, commented on the excellence of the American team-shooting. The hot weather, the Sergeant said, was somewhat against the English team, and the mosquitoes, although very small insects, had caused them many sleepless nights. One thing very much to the point, which we copy in full from the gallant sergeant's speech, was as follows:

"The majority of good rifle shots in this country (America) are generally very temperate men, and during our shooting on Creedmoor I was very much pleased to see that almost all the American marksmen drank only milk, which goes so far to account for their steadiness. In fact, during our stay on Long Island, I did not see anything more than a glass of claret drunk by any of our party, or even their many distinguished guests, and very few indulged in so much."

We heartily indorse Sergeant Ferguson's ideas about abstinence in regard to rifle shooting. Drinking men never make good rifle shots.

## BRECH VS. MUZZLE-LOADER.

BRIDGEPORT, CONN., Jan. 8, 1878.

EDITOR FOREST AND STREAM:

The international rifle match of 1877 has almost passed from the minds of the American people. They are so accustomed to victories that they take them as a matter of course, and in a few weeks they are comparatively forgotten. But such is not the case with the defeated nation. It has been said of them that "they never know when they are whipped." In this case it appears that they are gradually beginning to suspect that, at least, they were not victorious, and their newspaper writers are vigorously endeavoring to prove that the Americans won the match because they had worse guns, poorer powder, and men of indifferently shooting abilities. Our men are characterized as "mere trigger pullers," our rifles as "despicable abortions" and "mere shams." The *Volunteer Service Gazette* abounds with correspondence of this kind, and many of the letters have been from gentlemen who have had abundant opportunities of learning the truth. But they appear to be of that class of men who—

— convinced against his will,  
Is of the same opinion still."

The principal charge made against our guns is that they cannot be shot without cleaning after each discharge, and the charge is sweeping. Long-range military and sporting rifles are all included. Sir Henry Halford, in a letter to the *Gazette*, writes: "Without cleaning the American breech-loader is absolutely useless, for no second cartridge can be inserted." We trust Sir Henry will not consider us discourteous if we republish part of a private letter he wrote us in 1875. We felt proud of the score at that time, and still think it a good one. In 1874 he ordered one of our long-range breech-loading rifles, and, acknowledging its receipt, he sent us the score and diagram of target made at his first trial with it. We send you the diagram as it appeared in your columns at that time:



5 4 5 5 5 5 5 5 5 5—49 out of a possible 50.

And now we quote from Sir Henry's letter: "Forty-nine out of a possible fifty at 500 yards; fired ten shots; very bad light; lying down, no rest; rifle not wiped out." In addition to this testimony we produce that of J. K. Miller, one of the best shots in the United Kingdom, either at long or short range. He shot a Sharps' mid-range breech-loader at the meeting in Chicago last fall, winning the first prize in a field of forty competitors, at 800 yards, off-hand, without cleaning, with a score of 48, the best ever made at that distance without cleaning. Added to the testimony of these may be had that of many Englishmen who have hunted on our Western frontier. Their arms are very generally used, and the hunter seldom or never cleans his rifle till camp is made at night. Professional hunters for pelts often bag one hundred or more buffalo in a day, and do not clean from first shot to last. We make rifles that can be fired 1,000 consecutive shots without cleaning, and still retain their accuracy.

Mr. John Ripby, who makes one of the best of muzzle-loaders, and is a correspondent of the *Gazette*, refers often and with evident pride to the fact that in 1874 he defeated us in a match with his muzzle-loaders against our breech-loaders, both without wiping. We acknowledge the defeat, but deny that it was a conclusive test, or that it proved anything except perhaps that we had yet much to learn about rifle shooting. In the first place, our representatives at that time had had but little experience in shooting 1,000 yards in the strong, gusty wind in which this match was shot, it being their first year at the sport, while their antagonists were veterans of ten years' practice. Again, in point of fact, the muzzle-loaders, though not "wiped," were cleaned every shot, for it is impossible to "insert a second" bullet until the barrel has been cleaned by forcing down upon the powder a thick and tight-fitting and lubricating wad, which carries all the debris with it, leaving nothing to impede the true flight of the bullet. Last we are accused of being inconsistent, we hasten to say that we do not claim for our match rifles, with their heavy charges of powder and lead, that they will do as close work without cleaning as with. Our military and sporting rifle cartridges contain sufficient lubricating material to keep the barrels in good shooting trim; this is left out of the long-range ammunition. As the purpose for which the match rifles are made admits of cleaning, they are made with that intention. As we have shown, the muzzle-loader is cleaned (or supposed to be) every time it is loaded, and this difference between certainty and supposition is just the difference between a breech and muzzle-loader, and manifestly in favor of the former.

We claim for our breech-loading military rifles that a fair shot can

keep on the target (6x12) at 1,000 yards without cleaning; and a rifle that can be shot within the space occupied by a front of six men, at that distance, is accurate enough for military purposes. As regards the alleged high prices of American arms, we will not ask you to publish all of our price list for the benefit of our British consuls (you might mention that it will be mailed post free upon application), but our best match rifles are only £20 instead of £40. The latter figure can be made up in extra polish if desired, and our military rifle is only £24, while the sporting rifles vary all the way between these two extremes.

We leave our marksmen to defend themselves against the imputation upon their skill. They have shown themselves capable of doing it in the past in four international matches. But if it be true that our men are "mere trigger pullers," that "every rifle is fired by the captain," we are surprised that none of the writers have taken note of the extreme politeness of our captain in the late match in bringing all the other rifles so much better than his own.

Yours truly,

SHARPS' RIFLE COMPANY.

For Forest and Stream and Rod and Gun.

## EXPLOSIVE AND EXPANSIVE BULLETS.

Explosive bullets have only lately excited the attention of American sportsmen, and very naturally great results are expected from them. Having given such bullets a thorough trial on deer as well as smaller animals, my experience may be of some value to those about to adopt them, and also to afford an answer to the many inquiries about them by correspondents of the *FOREST AND STREAM*.

Their construction is very simple, and any gunsmith of any skill can easily make the moulds. A moveable metal plug is inserted at each casting, so as to leave a cylindrical hole in the front end of the ball, running back one-half or two-thirds of its length. This plug is guided and held in place by passing through a thick, solid plate of metal, screwed to one side of the moulds. Upon striking any solid substance, even though it be very soft, the walls of this cylindrical hole expand outward. To insure accuracy the hole must be closed and the end smoothed over. This may be done with wax, or in cold weather with tallow. Copper cylinders made for this purpose are very good. When carefully made, these balls have a perfectly accurate flight up to 400 or 500 yards.

This is the expansive or "express" bullet, though "express bullet" properly means an expansive ball that is also very light in proportion to its calibre, so as to have a high initial velocity—the most sensible idea in the world for a hunting rifle.

This may now be made explosive in several ways, of which by far the best is to have the plug made the size of a rim-fire pistol cartridge, .22 long for a .44 ball. Then take the ball out of the pistol cartridge, fill it up with powder, and insert it in the rifle ball until the rim sits close upon the edge of the hole. These will explode without fail upon the softest flesh, and may be carried (except in the Winchester rifle) and fired with perfect safety. If any hammering be necessary to seat the ball in the cartridge, the pistol cartridge must, of course, not be put in until the other is loaded.

This ball makes, upon striking, no larger hole than that the solid ball of same size. At about an inch deep it explodes and makes a wedge-shaped hole, the width increasing with its depth for three or four inches, and varying with the toughness of the animal from two to four inches at the widest part. This wedge-shaped hole is caused, not by the explosion, but by the outward expansion of the walls of the cylinder. If the animal be a small one, such as a fox, the hole on the opposite side will be from three to four inches across, according to its age and the place of striking—a young one being almost cut in two by it. But on a large animal, like a deer, the sides of the cylinder generally tear off, and the butt of the ball passes on as an independent bullet.

So much for the ball: now for the results. The ball I have used is one that, when solid, would weigh about 530 grains. 44 ex lib, with a .22 long rim-fire pistol cartridge inserted, and driven by 70 grs. of the best powder. Having a very fine shooting .44 Maynard, I hoped that these balls would fully overcome the great trouble which makes deer hunting in or near the thick chapparal of California with a small-bored rifle not only a vexation, but, I don't hesitate to say, an outrage. I fully believe that at least one-third of the deer shot in California die a lingering death in the chapparal, either from their wounds or from blow-flies, which generally kill anything that is wounded, unless it is attended to by man. Here a wounded deer strikes instantly for thick brush and there skulks and hides so that he cannot be seen any distance, and cannot be approached because of the noise.

I very naturally thought I had struck just the thing, for on trying this ball upon two hares, they were blown into a fair grade of boarding-house hash, and a man here was lifted about five feet in the air, and had its back, one leg and one wing broken by the shock from a ball fired purposely three inches under it into the water. I was still more pleased on trying them on deer. The first shot I got was on a three-year-old buck, that dropped almost in his tracks from a ball behind the shoulder, when with the solid ball he would probably have run fifty or one hundred yards. On opening him I found the lungs torn into shreds.

The next was one of those provoking shots called a "panch shot," which are often unavoidable when you have to take many running shots. The deer died in about 400 yards from the place, where struck. With the solid ball it could have run all day, and I naturally thought this solved the vexatious question of "panch shots."

The next shot was at a doe, in a position where I had to take a "hawn shot" or none. I heard the ball explode, saw her drop her leg and start on a hobbling gait for the brush, and had that exquisite pleasure so often enjoyed by the possessor of one of those single-barreled small calibre abominations, misnamed "sporting rifles," of seeing my deer disappear to die beyond reach just as I got a second cartridge in. The trouble with this shot will be explained further on.

To go through the list would weary the reader. Suffice it to say that of forty-two deer unmistakably struck, eleven have escaped entirely; while out of the thirty-one I have bagged, seven were saved only by getting in another shot, either by heading off or where the brush happened to be thin enough to allow tracking without making a noise, by allowing them time to lie down and sicken. Twenty-four (a large proportion) either dropped in their

tracks or within a very few yards. Every one struck in or back of shoulders, or in the neck or loins, dropped in less than half a minute, while every one struck in the panch, stern or hip either got away, or was secured by a second shot, obtained only by hard or careful work. Of eight struck in the panch not one showed any more sign of distress than they do when struck by the solid ball (except the first one, which must have been killed by a splinter of the ball ranging forward or upward into the kidneys or back veins), and one half-grown fawn that I was almost ashamed to shoot at, after having four hours time to lie down, was about as lively as ever, and actually got away from me. Four struck in the hip, like the third one mentioned above, got away. The solid ball would have gone clear through and broken both hips, whereas it simply made a large flesh wound in one, and leaving the other strong enough to travel on faster than a man can.

This lack of penetration is the most serious drawback of these balls. If made to take a .22 long cartridge there is little left to the ball, the expansion retards it very materially and the explosion still more. The difference in penetration is immense, several balls having failed to pass through both shoulders of a deer, where the same ball, if solid, would go through two or three deer. They should consequently be made hollow not over half their length, and I think only two-fifths better still.

I have come to the conclusion that the best way to use these balls is without any powder, or anything but wax to close the hole, and cast of hardened lead like the Creedmoor ball, with the hole made small and narrowing nearly to a point at its bottom. This may seem absurd; but I am not theorizing, and after a thorough trial of each have abandoned the explosive part of it until I can find something far more explosive than black powder, that is also safe. The advantages of such a ball are these: First, it will not fly to pieces, but by remaining together will retain its momentum and have greater penetration; second, by expanding without tearing off its walls it will cut a hole of greater average width throughout its entire passage; third, a short, swift ball may in this way be made to do capital work, whereas, if explosive, it must either be made so heavy that the intolerable nuisance of low initial velocity, and consequent shortening of the natural point-blank must be submitted to, or else if made light it will have little penetration upon the solid parts of a large animal. Another objection is this: Game at long ranges will often stand for one or two "sighting shots." The explosion of a ball around their feet will (variably to my experience) make them run far enough to ruin your calculations for the next shot, whereas they will often stand or jump only a step or two for a solid ball.

In *"Hallow's Gazetteer,"* page 545, note, is an account by a Mr. Mead, of the top of the skull of a 1,000 pound grizzly being torn off by a ball containing .22 long pistol cartridge. I regret I differ from anything ever quoted (without being indorsed) in such excellent authority; but there is a mistake here which may mislead some brave sportsman into serious danger. Either that ball contained dynamite or fulminate of mercury—things far too treacherous for safety—or the ball struck in such a way that it would have shivered the top of the skull anyhow, or the account has passed through two or three mouths, or the observer's expectations of what would occur have, by a well known law of human nature, led him unconsciously to exaggerate what did occur. At all events I do not hesitate to pronounce it an entire mistake as it stands. I have fired precisely the same cartridge into the head of a wildcat, into the shoulders of a coyote and fox, into a black eagle, and as a quieting shot into the heads of several deer, besides the instances before cited. In no case was there any sign whatever of blowing, tearing or shattering either of bones or skin, except where the ball came out, and there the hole was precisely the same as is made by the ball without any powder or cartridge in it. The only way I can explain this is that black powder is too slow; that while it will tear a tender thing like a hare in pieces, where the object is tough the gas escapes partly behind the ball, which it can easily do, owing to the wedge-shape of the hole, and partly through the hole which is cut for it by the ball in front, which is done just about as quick as the gas can fill it.

In order to test this question thoroughly, I bored out some balls with a bit, so as to take a .32 long cartridge. These contain about twice as much powder as the .22 cartridge. The balls of these balls were so injured in shape by the vise that I did not try them on deer, for I doubted their accuracy. A melodious old 12-pound tom-cat, of whose inspiring eloquence the ranche was weary, furnished, however, a far better test. I shot first at his middle, but struck too low down, about an inch from the lower edge. The skin was torn for several inches on each side, the heart and lungs laid bare, and the cat killed in about a minute. I then fired another into the back between the shoulders. It came out between the fore-legs, making a slightly larger hole than the merely expansive bullet would have done; but there was no tearing or blowing apart of the shoulders whatever, nor was the skin anywhere broken except where the ball entered and passed out. Another fired into the head produced exactly the same effect, viz.: cutting a larger hole on the exit side, but without blowing open anything. I then fired one into a piece of dry cottonwood log, eight inches in diameter and twelve inches long, free from knots and straight grained, and the mate to which required only one good blow of an ax to split. The piece was not split or shattered in any way. In opening it with an ax I found the ball had penetrated about five inches, and was torn to bits. This seemed to confirm what I had noticed before with the smaller cartridge, that the gas can, in a tough substance, escape entirely out of the hole the ball entered. I then took another piece of cottonwood, only five inches in diameter and ten inches in length, and perfectly straight. The ball passed entirely through this, cutting a little larger hole on the other side than the simply expansive bullet would have done, but I failed to find any sign of a crack or split in the block from the explosion.

In none of the instances given has there been any question as to whether the ball exploded or not. I have never yet known one to fail. The blackening and smell of the powder is always more or less noticeable, especially in wood, and at over sixty yards or so the explosion may be plainly heard like a fire-cracker.

The conclusions to which I have come to are these:

That these balls are a great improvement over solid balls of same calibre (except where great penetration is needed, when they are decidedly inferior), but do not wholly overcome the objections to small calibre.

That in the long run they are better simply closed with wax, made of hardened lead, and with a short and small hole tapering to its bottom.

That on animals as large as a deer the shock of the explosion from a .22 long black powder cartridge amounts to nothing.

That the explosive principle is a good one, but that something far quicker than black powder must be used to give it any advantage for large game over the simply expansive ball.

That it would be folly to interview a grizzly with these under circumstances where it would be unsafe with the same balls solid, and perfect madness to try it (as a correspondent of FOREST AND STREAM some time ago asked about) with such small balls and charges as the old model Winchester.

As this is a subject of some importance, I would be glad to hear from any one whose experience differs from mine, and to have the particulars and date of his experiments. I have sometimes thought the deer of this part of California is tougher than the white tail, but as I almost always hunted on snow while living East, and never had any difficulty from brush, I cannot judge so well. At any rate it needs something very different from ordinary rifles to keep about one-third of the deer struck from getting lost.

T. S. VAN DYKE.

Miner's Rancho, San Diego Co., Cal.

SPLIT BAMBOO RODS.

To our customers and the public:—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON, Manufacturers, 65 Fulton Street, N. Y.

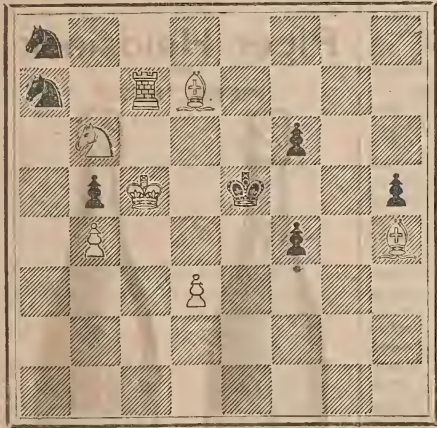
THE BEST OUTDOOR LIGHT ON EARTH FOR NIGHT FISHING. Railroads, Steamboats, Shows, or wherever an outdoor light is required. Can read by it night 100 feet from the lamp the darkest night. Send for circular to WILSON, KEAGLE & CO., Centre Point, Iowa.

The Game of Chess.

NOTICE.—Chess exchanges, communications and solutions should be addressed "Chess Editor FOREST AND STREAM, P. O. box 54, Wolcottville, Conn."

Problem No. 1.

Tourney set. No. 1. Motto.—Earnestly Advise Knowledge.



White to play and mate in two moves.

Game No. 1.—EVANS GAMBIT.

Table showing chess moves for White and Black. White moves are listed on the left and Black moves on the right. Moves include P-K4, K-Q B3, B-R4, P-Q Kt4, B-B3, Castles, P-Q4, B-R3, P-K5, R-K, P-K4, P-K4, K-Q B3, B-R4, P-Q3, K-K5, P-Q4, P-Kt5, Kt-K5, Kt-K5, Kt-K5, Kt-K5, Kt-K5.

White announced mate in four moves.

Recognizing the increasing favor with which this branch of the roya game is regarded we have decided to offer a number of liberal prizes for competition.

THE PRIZES.

- 1. For the best set. \$25 00
2. For the second best set. 20 00
3. For the third best set. 10 00
4. For the best three move problems. 5 00
5. For the best two move problems. 5 00
6. For the second best two move problems. 2 00
7. For the second best one move problems. 2 00
8. For the best problem entered in the tourney. 5 00

Each composer is invited to send in a two move problem accompanied by his photograph, the author of the winning position to receive as a prize all the photographs.

Problems will be judged according to the following standard.

BULL'S PROBLEM CODE.

- 1. Beauty and originality of design. 1 to 10 points.
2. Difficulty of solution. 1 to 10 "
3. Accuracy and elegance of construction. 1 to 10 "

RULES.

Competition is open to the world. All problems to be direct mates—that is to say, white to play and mate in two or three moves, as the case may be. All problems must be original and not hitherto published. Competitors may enter as many sets, or single problems as they please. Each competitor will affix a motto to every single set or problem sent in and also inclose his name and address. Competing problems will be submitted to the umpire, Charles A. Gilberg, Esq., who will report all unsound positions. American composers will be allowed four weeks in which to correct such positions; foreign composers being allowed eight weeks for the same purpose. Should the requisite corrections not be received within the time specified the positions will then be ruled out of the tourney.

received within the time specified the positions will then be ruled out of the tourney. The tourney will be open to competition until the first day of July 1818, after which date the list will be closed. The prizes will be awarded within two weeks after the publication of the last problem. Address E. A. Kunkel, Wolcottville, Conn.

THE FOREST AND STREAM SOLVERS' TOURNEY.

This tourney commences with problem No. 1 and will continue until all the problems entered in the above problem tourney are published.

THE PRIZES.

- 1. Cash prize of. \$10 00
2. " " " 5 00
3. THE FOREST AND STREAM for one year. 3 00
4. Cash prize of. 2 00
5. " " " 2 00

CURSORY JOTTINGS.

Our chess contemporaries are requested to announce the above tourneys in their respective columns, and also to arrange for an exchange.

We have already received problems from eminent problematists in America, England, Scotland, France, Italy and Germany for our tourney, all of which we shall publish as fast as possible. In this connection it is proper that we inform our friends, and the chess public generally, that we are no longer interested in the prosperity of another chess column, or the success or result of another chess column's problem and solvers' tourneys.

Answers to Correspondents.

No Notice Taken of Anonymous Communications.

A number of anonymous correspondents will understand why their queries are not answered, when they read the lines at the head of this column.

H. Cumberland, Md.—You ought to buy a good pointer, or setter for \$75.

C. H. C. is informed that by writing directly to us we can, we think, get him the dog he may wish to breed from.

FRANK FORESTER.—The Warwick Woodlands are published as a separate volume by the Petersons of Philadelphia.

G. H. W., Nashua, N. H.—What is the best tent for three or four persons camping, and price? Ans. See our advertising columns.

R. B. S., Brownville, Miss.—For \$75 you ought to get an excellent breech-loader, but we decline specifying any particular gun.

F. S. C., Galveston.—Don't you think 3 drs. powder and 1 oz. shot sufficient for duck shooting with a No. 10 gun? Ans. No; 4 drs. are necessary, and 1 1/2 oz. shot.

C. E. C., Hanover.—What is an express shot-gun? Ans. It is a trademark of Duggan, the well-known gunmaker. Duggan has gained great reputation from his "Express rifle."

H. C. S., Hontzdale, Pa.—I have a Scott gun, choke-bore, and want the choke taken out of one barrel. Who would you recommend to do it? Ans. Send the gun to Genez, Chambers St., New York.

J. W. S., Gansevoort.—What would you advise a person to do who wishes to secure a patent and who is entirely unacquainted with the formulas to be observed? Ans. Write to Scientific American.

H. T. W., Northbridge, Mass.—I have an oak's head and antlers, and wishes to have them mounted. What shall I use to kill them? Ans. Use corrosive sublimate, first having carefully brushed the specimen.

H. V., Poughkeepsie.—Could you tell me where I could purchase an association score-book, short range, and at what price? Ans. Of E. H. Madison, gunsmith, 564 Fulton street, Brooklyn; price 25 cents.

J. W. F., Auburn, Placer Co., Cal.—We will do our best for you, and will correspond with you later about the dog. You had better write us again, say in three weeks' time, as we may know of a dog about then.

J. H. A., Clifty, Ind.—We refer you to the reply we have made R. B. S. The gun you mention is excellent. We know some in use by leading sportsmen, who have the highest opinions of their merits.

SNIPER, New York.—The law of Connecticut prohibits the snaring of grouse and quail, save on one's own land. A man who shares \$20 worth of grouse we should, most undoubtedly, consider a variety of the genus pot-hunter.

W. T. M., Geneva, N. Y.—Crystal River is in Hernando Co, Florida between Homosassa and Cedar Keys; reached via water from the latter point. Regular vessels ply between these points. See our news columns last week.

WING SHOT, Painsville, Ohio.—I want a book on wing shooting and shooting of all kinds. What book shall I buy? Ans. In about a month Captain Bogardus' book (second edition) will be published and we think you will find there what you want.

H. M., S. Lawrence Co., N. Y.—I want a shot and rifle combined arm, not the barrels side by side. Who makes such an arm? Ans. Messrs. W. H. Baker & Co., of Syracuse, N. Y. It is called the "three-barrelled breech-loading gun." Two shots and a rifle.

FINDLEY'S LAKE.—Findley's Lake is about 19 miles from Corry, 11 from North East, and 8 from Sherman, on the Buffalo and Pittsburg R. R. A stage runs from Sherman to the summer hotel there. Bass, perch and sunfish in the Lake; fair ruffed grouse and woodcock shooting.

J. G., West Lebanon, N. H.—Are there any Rocky Mountain quail in market? If not, where can I get some? 2. Can I get some native quail? Ans. Neither California quail nor native ones are to be had. These questions we have replied to in the negative in almost every number of the paper.

AHNMAN, Mahonington, Pa.—My setter bitch, 50 lbs., native from Ireland, had one of the claws on left fore foot taken off by a car-wheel, but does not incapacitate her in the least. Will it do her from entry and chances of being a prize winner in the Pittsburg Bench Show, to be held Jan. 17 to 28? Ans. If not a disfigurement the dog could compete.

S. W. B., Vicksburg.—Where can I buy a copy of "The Complete Angler" of Izaak Walton and Charles Cotton, edited by John Major, and published by Little, Brown & Co., Boston, 1867? What will be the cost? Ans. Book very scarce. By leaving an order with Sabin or Leggat, in New York, you might get the book. Cost about \$1.50.

T. S. J., Salem.—Has there ever been made for sale a cloth that can be placed on the ground to catch the broken glass which is used in shooting the glass balls; if so, where can they be had? Ans. Not that we know of. In shooting the 5,000 glass ball wretch at Gilmore's Garden a big sheet caught all the fragments of glass. In shooting on grounds the same thing could be done.

G. S. F., Philadelphia.—Is it natural for a bitch setter to have passages of blood from the urinary organs? My bitch—I had hunted her lately on a warm day—had a nervous spasm, and keeled over in convulsions. She seems all right now. Is anything the matter? Ans. From your account your bitch is probably in heat.

Ans. From your account your bitch is probably in heat.

E. A. H., Brooklyn.—1. At what distances is an F. Wesson .44 cal., 28-in. barrel, reliable? 2. Which is preferable for shooting in the North Woods, a rifle or a shot-gun? 3. What bore do you recommend for general shooting with a shot-gun? Ans. 1. We know of shooting at 1,000 yards made with a Wesson which was very accurate. 2. A shot-gun by long odds. 3. We prefer 12 bore.

T. A. S., Macon, Mo.—Address Schuyler, Hartley & Graham as to cost. If new barrels are wanted, have Messrs. Scott & Sons do the work, sending your gun to Messrs. Schuyler, Hartley & Graham. They will take pleasure in giving you the exact cost, but must know the number of the gun. You have, undoubtedly, a very fine arm.

G. W. H., Tusculum, Pa.—Have a fine dog, age about twelve years. He is quite lively, but deaf—can't hear a bird rise within four feet of him. Can I do anything for him? Ans. Sponge his ears very carefully with warm water and Castile soap. It is not likely, however, that you can benefit his hearing.

C. B., Jersey City.—Have a young deer who has the rheumatism. The hair on the neck is rufed, and he looks as if in great pain. Have used ammonia liniment, but it does not seem to have the desired effect. What medicine would you suggest? Ans. Give warm mush with a little nitre, twice a day, with warm bed and comfortable quarters.

J. C., Philadelphia.—1. Are Gordon setters ever liver-colored? Have one guaranteed to be a full-blooded Gordon. 2. Docs cutting a dog's tail improve it in any way? Ans. 1. A pure Gordon would not be liver-colored; black, black and white, and black, white and tan are the colors. 2. Better leave the tail alone, save in special cases—this is the advice we mostly give.

PADDY O'LEARY, Ashbysburgh.—We cannot say that phonography will ever come into common use, if by that you mean that it will be used aside from the professions. It can be learned without a teacher, but if you contemplate a study of the art, we would advise you to secure instruction. The Fibbert saloon rifle is a very good little parlor air, and with a 22 cartridge, would kill even bigger game than squirrels, say cats.

C. H. C., Urbana.—My setter dog, 2 1/2 years old, passes discolored urine, and has great thirst. Vomits frequently a dark-colored liquid, which looks as if it were blood. His breathing is labored. Some weeks ago he may have swallowed some refuse oil, floating on the surface of the water. He is skin and bones. What can I do for him? Ans. It is quite possible that he was poisoned by the refuse oil, but he should not have access to the scup bucket. Feed him regularly and carefully twice a day, and give him a dose of castor oil every second or third day for a week.

G. C. B., New York.—Have a red setter dog, 18 months old. I have a notion of taking off one joint of his tail, as it comes about one inch below the game joint. Think of sending him to the Show in May, and fancy his length of tail may be against him. I send his pedigree. Ans. Would advise you to leave the tail alone, when two years old you will not think it too long; and if it is, entailing will not improve it. Pedigree very good. As to inherent traits derived from father or mother, it has not yet been decided, and never will be.

F. DE B., Philadelphia.—My pointer has commenced drooping his head, and breathes heavily; symptoms have grown worse. He coughs, is weak, and can barely stand. Tongue seems to be swollen. He scratches his ear. Have given him castor oil. He is about six months old. Think he has a bad cold—what shall I do? Ans. You are probably right about the dog having taken a severe cold. Give him two or three doses of castor oil. Keep him quite warm and dry; and feed him on broths and milk for a while.

F. G. Y., Philadelphia.—How would a tan-colored leather coat do for duck shooting on the Chesapeake? I refer to those advertised by G. W. Simmons & Son, of Boston. Do you think the color would be right for shooting over decoys from shore? Ans. Simmons' suits, or any other of the butternut color, are suitable for duck shooting; but as you must have warm clothing, you will have to get your suit several sizes too large, if you wish to wear it as an over-dress.

DOCTOR, Morgantown, N. C.—I expect to be ordered soon to Arizona. Would you advise me to take my pointer, to whom I am very much attached, or will it be too much hardship for him? I would prefer to give him away rather than have him suffer. Ans. Yes, take your dog. It will pay. Capt. Vitch, of 7th Cavalry, U. S. A., has just taken several varieties of thoroughbred dogs—hounds, pointers and setters—to the Rio Grande. The railroads will take good care of him, and on the stage routes you can let him alternately ride and run. You can do little bird shooting in the West without dogs. You will find that nearly all the sporting residents, even in the Indian Territory, own good hunting dogs.

SUBSCRIBER, Stamford, Ct.—1. Would having a gun choke-bored diminish its penetration? 2. Is it possible for me to buy an Irish or English setter pup about four or five months old as cheap as eight or ten dollars? 3. Do you think it is possible for an inexperienced person to break a dog by following directions of "Sportsman's Gazetteer" provided he exercised much care and patience? 4. Would a dog five months old now be old enough next fall to work well? Ans. 1. No. 2. Possibly, or you might get out as a gift. 3. Instructions were printed with that object and expectation. 4. Precocity often shows itself in very young dogs. He might "work well," but should not be permitted to do much service in the field at so tender an age.

A. B. C., Boston, Mass.—I shot last spring a small bird at Milton, within a mile of Mr. Aldrich's house. I took it there, and he said it was an "Aquatic Wood Wagtail." I can find no bird of like name in my "Sammels' Birds of N. E." Since then I have obtained a more valuable work by Elliot Coues. In the family Motacillina (wagtails) my bird answers well to the habits of the bird, but E. C. gives only the yellow wagtail, and says: "The sub-family, Motacillina, true wagtails, is represented in America by a single species." In a word—have I shot a new species of American bird, or is it a yellow wagtail? I have it set up in my cabinet of birds by Mr. Aldrich. Ans. Of course, it is impossible to tell what your bird is without having a description of it, but it is safe to say that you have neither a new species nor *Budytes flava*. Probably your bird is a *Sturnus*, very likely the species called, in the Key, *S. noveboracensis*.

NOTICE TO SPORTSMEN.—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grise and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address. We keep on hand all grades, the prices of which range from \$15 to \$160. We put our stamp only on the best, in order to protect our customers and our reputation, for we are unwilling to sell a poor rod with a false enamel (made by burning and staining to imitate the genuine article) without letting our customers know just what they are getting.

P. O. Box 1,294.—[Advt.] ABBEY & IMBRIE, 85 Maiden Lane

**Yachting and Boating.**

**HIGH WATER FOR THE WEEK.**

Date.	Boston.		New York.		Charleston	
	H.	M.	H.	M.	H.	M.
Jan. 18.....	16	40	7	24	7	53
Jan. 19.....	11	30	8	19	7	59
Jan. 20.....	0	01	9	14	8	45
Jan. 21.....	0	50	10	03	9	29
Jan. 22.....	1	40	11	01	10	13
Jan. 23.....	1	31	11	03	11	00
Jan. 24.....	8	24	0	23	11	48

**NEW CRAFT.**—The builders are designing and constructing quite a number of new yachts for the coming season, among which we hear of a schooner-yacht about the size of the Comet, which Mr. Sam Pine is to build for Mr. Pierre Lorillard. Mr. Pierce, of the Atlantic Club, has contracted with Mr. Gorman, of Brooklyn, for a centre-board sloop-yacht, forty-six feet long. Mr. Gorman is also to build a sloop-yacht, forty-eight feet long, for Mr. John Dimon, of the Brooklyn Yacht Club, who has just sold his sloop, the Wave, which Mr. Gorman built for him last year. Mr. Fred May and his brother, of the Seawanhaka, have a sloop-yacht 31 feet long, 11 feet beam and 3 feet 10 inches deep, built by Mr. John Munn, of Brooklyn, from a model by Mr. A. Carey Smith. The same builder has also nearly ready for launching a centre-board sloop-yacht for Mr. James Smith. She is 33 feet long, 13 feet beam and 3 feet 7 inches deep. Mr. Munn has built since the close of the last season three cabin yachts, 29, 26 and 23 feet long respectively, and three open racing yachts, 20, 18 and 16 feet long respectively. All these six he has on hand ready for purchasers at the opening of the season. Mr. Rhodes, of Brooklyn, has nearly completed a 23-foot racing yacht, which he has built for a member of the Atlantic Yacht Club. Mr. Jacob Schmidt, the builder of the Pluck and Luck, Dare Devil, etc., is building a catamaran. As he has sailed frequently in the John Gilpin, his proposed boat may be expected to embody all the advantages of the Herreshoff model with any improvement which may suggest itself to a builder like Mr. Schmidt. Mr. J. Lennox, Brooklyn, is building for Mr. J. Buchanan Henry, of Staten Island, a centre-board yacht. Her dimensions are 37 feet long, 14 feet beam and 5 feet deep. She will be cat-rigged, but the main boom will not come to the taffrail, and abaft it she will carry a jigger. Mr. William Wats, of the Williamsburg Yacht Club, has nearly complete, at Greenpoint, a centre-board sloop-yacht 42 feet long, 17 feet 6 inches beam and 4 feet 6 inches deep. Mr. Richard Wallin, at the foot of Court street, has completed a racing yacht for ex-Commander Noble, of the Columbia Yacht Club.

**THE DAUNTLESS SOLD.**—James Gordon Bennett has sold his famous schooner-yacht Dauntless to a member of the New York Yacht Club, for \$15,000.

—The steam-yacht which is building for Mr. Dion Boucault is to be of iron, and is being constructed at Chester, Pa.

—Mr. J. Buchanan Henry's new yacht will be called the Cruiser. It will fly the pennant of the New York Yacht Club. She is thirty-five feet over all.

—Mr. O. Iselin has sold his racing yacht Dare Devil to Mr. Dillworth, of Hoboken, and she will be enrolled in the New Jersey Yacht Club.

—Mr. John Dimon, of the Brooklyn Club, has sold his sloop-yacht Wavo to Mr. E. B. Underhill, of the same club.

**BROOKLYN YACHT CLUB.**—At the regular meeting of the Brooklyn Yacht Club, Jan. 9, the following officers were elected for the ensuing year: Commodore, J. Lester Wallack, of the schooner-yacht Columbia; Vice-Commodore, Charles E. Hall, of the schooner-yacht Mystic; Rear-Commodore, John B. Norris, of the sloop-yacht Sadie; President, Charles W. Blossom; Secretary and Treasurer, William T. Lee; Asst.-Secretary, George G. Dunning; Messrs. John W. Sawyer; Fleet-Surgeon, Samuel Hall, M. D.; Judge-Advocate, Henry C. Place; Trustees, Samuel McElroy, D. S. Hines, W. R. Wadsworth and Geo. H. Sandolph; Committee on Membership, S. L. Blood, W. R. Ringwood and F. W. Jenkins; Regatta Committee, H. W. Turner, Henry Heutz and R. J. Cortis.

**QUAKER CITY YACHT CLUB.**—This club, of Philadelphia, has elected the following officers for the ensuing year: Com., A. F. Bancroft, of the yacht Lillie; Vice-Com., L. Coleman, of the yacht S. Joseph; Rear-Com., Paul Klotz, of the yacht White Wing of Chester, Pa.; Pres't., N. B. Boyd; Sec., Chas. S. Salin; Asst.-Sec., J. J. Baughman; Treas., Robt. Baird; Meas. Capt., Jno. C. Vandersick; Regatta Com., Chas. S. Austin, Jno. S. Pomeroy and Jno. M. Saigel.

**LECTURES ON NAVAL ARCHITECTURE.**—Mr. A. Carey Smith, the well known yacht builder, is delivering a course of lectures before the Seawanhaka Yacht Club, on the modelling and con-

struction of yachts. The first of the series was given at Delmonico's last Saturday evening, and was upon the sheer, half-breadth and body plans of a yacht. The speaker illustrated his lecture with capital black-board drawings. The next lecture, Jan. 26, will be upon the calculations involved in yacht-designing, tonnage, draught, etc.

**TOURIST.**—The steam-yacht Tourist, owned by Commodore Charles A. Chesborough, of New York, Capt. J. S. Simmons in command, arrived at Wilmington, N. C., on the 12th inst., en route for Jacksonville, Florida.

**NATIONAL ASSOCIATION OF AMATEUR OARSMEN.**—At the annual meeting of this Association, held in this city last Saturday evening, Alexander Krumbhaar, of the Philadelphia Barge Club, of Philadelphia, Pa., was elected chairman. There were present the following named gentlemen: O. M. Huntington, Narragansett Boat Club, Providence, R. I.; Robert L. Reade, Nassau Boat Club, New York; H. E. Buermeier, Athletic Club, New York; H. W. Garfield, Mutual Boat Club, Albany, N. Y.; T. W. Kennedy, Passaic Boat Club, Newark, N. J. The next regatta will be held next August at Newark, on the Passaic River, the Newark citizens to place \$500 in the hands of the executive committee, as a guarantee, before the second Saturday in June, the next regular meeting of the Association. There was a lively discussion upon the attempt to disqualify the Dauntless and Columbia College crews for rowing last October against the Argonauts. The latter contained a professional, Mr. Ed. Smith, and a rule of the Association is that any man rowing in a contest where there is a professional shall be from that time excluded from the Association. No club has made any application for the dismissal in this case, and nothing was done. The Atalantas sent in their resignation, and it was accepted. Messrs. Reade and Buermeier were appointed to draw up a definition of "junior sculler."

**BOATING AT HARVARD.**—For the University crew of 1878 twelve men are now in training. Of these six were in last year's crew, namely: Bancroft, Captain, '78, Cambridge; Smith, '79, Worcester; Schwartz, '79, Bangor, Me.; Crocker, '79, Fitchburg; Brigham, '80, Salem; Littaner, '78, New York city; Allen, the last year's coxswain, is to be coxswain for the coming race. The new men are Stowe, '80, San Francisco; Parker, '78, Lancaster; Trimble, '80, New York city; Taussig, '79, St. Louis. From these Mr. Bancroft feels he can select a capital crew. The weight of the candidates averages about 187 pounds. Their average age is 20 years, which is about the age of the average Harvard crew. In their race with Yale the crew will use a paper boat of the same length and build as that of last year. Harvard is also well satisfied with the present system of eight-oared crews that she will probably not return to the six-oared system. The interest in boating is not nearly so strong as it was a few years ago. The 1,400 students confected with the University furnish only twelve candidates for places on the crew, and the enthusiasm of the club crews is in a sad state of decline. Their prospects, however, in the coming race are as encouraging as ever they were, and under the energetic and efficient control of Capt. Bancroft we shall expect a good record from the Crimson next summer.

**OXFORD'S CHALLENGE TO COLUMBIA.**—Oxford University has challenged the Columbia College four to row a race from Putney to Mortlake for the college championship of the world. If the Columbia crew defeats Oxford a second race with Cambridge is proposed. The Columbia boys very sensibly disclaim representing anything more than their own college in this contest, and while expressing their willingness to let all America and all American colleges participate in her victory if she wins, they do not wish to involve any other oarsmen in their defeat.

**ATALANTAS.**—At the thirty-first annual meeting of the Atalantas Boat Club, of New York—the oldest rowing club in American waters—the following officers were elected for 1878: Pres., George B. Dean, Jr.; First Vice-Pres., Frederick H. Clark; Second Vice-Pres., Edward C. Ripley; Sec., John E. Eustis; Treas., Henry S. Sprull; Financial Sec., J. H. Kent; Board of Trustees, ex-Pres. Ransom Parker, Jr., John King, Seth H. Noyes, A. Byron Cross, Charles Devoe; Lieutenant, George W. Young; Log-keeper, P. Brennan.

**TERRONS.**—The officers of the Triton Boat Club, of Newark, N. J., for the ensuing year are: Pres., A. W. Conklin (Mr. L. E. Saunier declining a reelection); Vice-Pres., J. W. Morrell; Sec., Caleb Crockett; Treas., Frederick H. Shipman; Capt., Frank Phillips; Lieut., Frank M. Peters; Log-keeper, Charles B. Campbell. Messrs. H. C. Romme, C. S. Glaze, J. C. Littell and J. W. Van Ness, were chosen trustees.

**EUROKAS.**—The Eureka Boat Club, of Newark, N. J., has elected the following officers for the ensuing year: Com., John Young; Pres., George Clark; Vice-Pres., Watson Ryno; Sec., Manning Ford; Treas., John P. Cottrell; Capt., Peter Young; Lieut., Fred Fisher; Log-keeper, Adam Groel.

—The annual meeting of the New York Yacht Club will be held Feb. 7th.

**ECCENTRIC.**—East Newark, N. J., has a new boat club called the Eccentric; Pres., Whitefield Still; Vice-Pres., Sidney Askey; Sec., E. E. Smith; Treas., Frank Hedden; Capt., John Evans; Lieut., George McClure; Log-keeper, John P. Mead.

**DETROIT BOAT CLUB.**—This club has now a total membership of 231. The log shows a total of 625 miles rowed in 191 trips. Officers for the ensuing year: Pres't., Henry Russell; Vice-Pres't., Addison Moffat; Sec., C. L. Andrews; Treas., H. M. Campbell; Capt., John M. Hinchman.

**THE ENGLISH CHAMPIONSHIP.**—The rowing-match for £200 a side and the Newcastle Chronicle championship of England Challenge Cup between John Higgins, of Shadwell, and Robert Boyd, of Gateshead, on the River Tyne, from High Level Bridge to Scotswood Suspension Bridge, Jan. 14th, was won by Higgins on a foul.

**New Publications.**

**UPLAND GAME BIRDS AND WATER FOWL OF THE UNITED STATES:** by A. Pope, Jr. Published by Scribner, Armstrong & Co., New York, 1878.

As publishers of one of the leading magazines in the United States, Messrs. Scribner, Armstrong & Co. have in a measure revolutionized American illustrative art. In Upland Game Birds and Water Fowl, these enterprising publishers have shown their capabilities of carrying out successfully a new branch of art. Familiar as we should be with ornithological books, of which Audubon is the most remarkable in a pictorial sense, the publication now under review certainly forms an era in illustrative natural history. Mr. Pope's work may be described as exactly that happy conception of artist and sportsman combined, where the form, contour and general color of the bird is caught. We may remark just here that the naturalist *pave el simple*, does not often possess the true artistic feeling. If it is a fish he draws or paints he necessarily proceeds in a quasi Chinese manner. He depicts every spine, every scale. If it be a bird he wishes to portray, each wing feather must find its place, and he is inclined to insist on the distinctions of *plumula*, *semiplumae* or *filoplumae*. In his anxiety for absolute scientific accuracy, artistic effects and finish are sacrificed. That admirable collection of forms of plaster fish, with their exact colorings, due to the labors of the Smithsonian Institution, are rigorously correct. An ichthyologist would delight in such an assemblage of fish, but the artist would find but little pleasure in them. The æsthetic principle is what is wanting. A carefully modeled wax figure recalls the man, but a statue or picture embellishes, through the taste or genius of the artist, the human form. Mr. Pope is an artist in water colors, of marked merit, who has given careful study to the birds he paints, and Messrs. Scribner, Armstrong & Co. have taken his sketches and reproduced them in colors. Each illustration is mounted on card-board some 22x23 inches. There are two such pictures in each number, and the letter press is printed on heavy paper, the descriptions being compiled from Wilson's American ornithology, Audubon's Birds of America, Baird, Coues and all well-known authorities. The two pictures in the present number show the American Snipe and the Green Winged Teal. As much care has been taken with the birds as with their surroundings. In the snipe the round pretty head, the lustrous eyes of the *Gallinago wilsoni* are carefully hit off. Effects of plumage are wonderfully truthful. In the illustration of the teal one bird is down and hit hard, while the mate bird, with affrighted wing, shoots off like a bullet through the sedge and underbush which fringes the water side. We can hardly fancy more agreeable pictures for the sportsman or naturalist than to take these illustrations and to place them either in a portfolio for reference, or having them framed to ornament his walls with them. As to what is called "registering" in color printing these pictures are absolutely perfect, and those not familiar with this art will wonder how by mechanical means such exact copies of the painter's skill can be produced. Upland Game Birds is to be published in ten parts, five of which are now announced, and will be sold by subscription, and then only for the entire series.

**THE AMERICAN NATURALIST.**—The recent change in the ownership of this journal has developed, as might have been expected, no little dissatisfaction among leading naturalists, who seem to think that its usefulness is thereby greatly diminished. Heretofore many of our best known workers in science have contributed to its pages, and it was regarded as an impartial medium for communication with the public; but the feeling against the change is so strong that it is resulting in the gradual withdrawal of those who have hitherto been its most influential supporters.

**BOOKS RECEIVED.**—American Ornithology: Natural History of the Birds of the United States, by Alexander Wilson and Prince Charles Lucian

Bonaparte. The illustrative notes and life of Wilson by Sir James W. Jardine. 3 vols. Illustrated in colors. New York: J. W. Bouton, 706 Broadway. 1877.

**MESSRS. TIFFANY & CO., UNION SQUARE, NEW YORK City,** have made extensive preparations for the approaching HOLIDAYS.

Their Stock of Diamonds, Watches, Jewelry, Silverware, Bronzes, Pottery, Stationery and Fancy Articles, is the largest and most varied in this country, and includes novelties from abroad and choice goods of their own manufacture, not to be found elsewhere.

A special department has been organized for sending goods to persons at a distance from New York, and any one known to the house, or naming satisfactory references, can have careful selections sent for inspection.

They have lately published a little pamphlet containing a condensed account of each department, and lists of articles appropriate for presents, which they will send to any address on request.

**Piper Heidsieck**



**For Sale Everywhere.**

**JOHN OSBORN, SON & CO.,** 45 Beaver street, New York, and 44 St. Sacramento street, Montreal, GENERAL AGENTS.

ESTABLISHED 1820.

**C. G. Gunther's Sons,**

(LATE 502-504 BROADWAY.)

**184 Fifth Avenue,**

(Broadway and 23d St.) NEW YORK.

SEAL-SKIN SACQUES AND WRAPS, FUR-LINED CIRCULARS AND CLOAKS, FUR ROBES, MATS, COLLARS & GLOVES.

ALL IN LARGE ASSORTMENTS AND AT LOW PRICES.

N. B.—Orders by mail or information desired will receive special and prompt attention. Dec 13 87

# NICHOLS & LEFEVER,

SYRACUSE, N. Y.

MANUFACTURERS OF

DOUBLE AND SINGLE-BARREL BREECH-LOADING SHOT-GUNS

• Double-Barrel Breech-Loading Rifles, and Shot and Rifle combined. Muzzle-Loading Creedmoor guaranteed to be the best, and not to give "UNACCOUNTABLE MISSES."

Our Catalogue for 1878 will be ready January 15, giving full description of gun, recent improvements in same, matters of general interest to Sportsmen, etc., etc.



The Kennel.

The Kennel.

For Sale.

Guns, &c.

ST. LOUIS BENCH SHOW

February 19th, 20th, 21st and 23d, 1878.

\$3,000 CASH PRIZES,  
\$2,500 SPECIAL PRIZES.

REDUCED RATES AND PASSES FOR DOGS ON RAILROADS—HALF RATES BY ALL THE EXPRESS COMPANIES.

The richest prize list ever offered at a dog show in America. Premium lists ready for mailing on application to the Secretary.

Entries Close Feb. 5, 1878, Positively.

All entry fees must accompany entries. Certificates furnished exhibitors by the Association entitling the holders to reduced railroad rates and privileges.

CHAS. LINCOLN, Superintendent.  
JOHN W. MUNSON, Sec., St. Louis, Mo.

EDINA KENNEL.

JESSE SHERWOOD, PROPRIETOR, Edina, Knox County, Mo., breeder and importer of Sporting Dogs. Pointers, setters, spaniels, fox and beagle hounds. "Sancho," Imp. Pointer, stud dog; fee, \$35. See English K. C. S. B., No. 1,005. He is a grandson of the celebrated "Hamlet," No. 836. This dog "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874; three here.

**BALLARD'S FLEA KILLER!**  
FOR THE DESTRUCTION OF FLEAS On Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.  
**NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.**  
Price 50 CENTS per Package.  
Will be sent postage paid on receipt of price.  
Proprietors,  
LAZELL, MARSH & GARDINER,  
1710 ft 10 GOLD STREET, NEW YORK.

SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped.  
F. O. de LUZE,  
23 South William Street, N. Y., Sole Agent.  
For sale in cases of 112 lbs. Special terms to dealers.

Fleas! Fleas! Worms! Worms!

STEADMAN'S FLEA POWDER FOR DOGS.  
A Bane to Fleas—A Boon to Dogs.  
This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.  
Price 50 cents by mail, Postpaid

ARECA NUT FOR WORMS IN DOGS

A CERTAIN REMEDY.  
Put up in boxes containing a dozen wafers, with full directions for use.  
Price 50 cents per Box by mail.  
Both the above are recommended by ROD AND GUN and FOREST AND STREAM.  
W. HOLBERTON,  
102 NASSAU STREET.  
oct 12

SETTERS FOR SALE.—"Fan," black and tan, pure Gordon, Imp. stock, out of "Maud" by Marbled "Grooms," two years old; taught first lesson; bred to "Lelap" Jan. 5, 1878; price \$75. One dog, two years, white and chestnut, sire Tucker's dog, Providence, R. I., Copeland's "Old Pete" grand sire, dam English imported, very handsome, 23 1/2 inches high; taught first lesson, and game shot over; price \$75. "Bell," half imported red Irish and half English, color orange, two years old, taught first and second lessons (see circular), extra in fact, staunch and handsome, 33 1/2 inches high, never bred, price \$125; will breed her to "Lelap," same price. Dogs trained and boarded. For terms and particulars, send for circular. FRANKLIN SUMNER, Milton, Blue Hill, Mass. j17 4f

FOR SALE—A valuable setter dog, nearly three years old, choice stock, price \$30. A first-class English double-barrel breech-loader, made to order for A. A. Kellogg, New Haven, Conn.; used very little; warranted; size, No. 12; price, \$50. Also, a Sauter Health—14 good as new; a little shop worth cost; price \$25. Address 218 Orange street, New Haven, Conn. j17 3f

WEST MILTON KENNEL—"Lelap" in the stud, bred by R. H. Purcell Llewellyn, England, sire "Leicester," dam "Doll," sister to "Dart" and "Adams" "Drake," color white, ticked black and tan, 23 1/2 inches high, extra quality, very handsome. Fee, \$25.

THE DOG BREAKER'S GUIDE.—Train your own dogs in the most artistic manner. "The Dog Breaker's Guide" sent for three cent stamp. M. WOOD CULIN, Delaware City, Del. j17 1f

FOR SALE CHEAP.—Valuable setter dog, broken. Will exchange for a good rifle (breech-loading) or shot-gun. Address, ADVERTISER, New Haven, Conn. j17 1f

FOR SALE.—One imported red Irish setter dog, Dash, from J. C. Cooper, Limerick, Ireland, of good stock, sired by Grouse out of Puck. Dash is about two years old and unbroken; of a deep blood red color, with slight marking of white on face. Price moderate. One Chesapeake Bay duck dog, Friday (long hair), well broken to retrieve (about one year old). Price \$25. Snapshot, celebrated champion pointer, and Frank, imported English setter, winner of first at Philadelphia, in the stud. LINCOLN & HELLYAR, Warren, Mass. j17 1f

COCKER SPANIEL BREEDING KENNEL OF M. P. MCKOON, Franklin, Del. Co., N. Y.—I keep only cockers of the finest strains. I sell only young stock. I guarantee satisfaction and safe delivery to every customer. These beautiful and intelligent dogs cannot be beaten for ruffed grouse and woodcock shooting and retrieving. j10 1f

FOR SALE.—One of the handsomest and best stock and pedigree, also, some fine setters, four years old, thoroughly broke on quail, ruffed grouse, and is one of the best snipe dogs that I ever hunted with. Pedigree and the above guarantee; price, if taken soon, will be cheap. One red Irish setter dog pup, six months old; is out of "Bess," by C. Z. Mile's imp, red Irish dog, "York," one of the handsomest red dogs in America. Price cheap. For full particulars inquire G. S. HACKER, Lancaster, Pa. j17 1f

FULL-BLOODED—Two Irish setter bitches, four months. Sire of pups, Don, imported from J. C. Cooper, of Limerick, Ireland, by C. H. Turner, Sec. Nat. Kennel Club, St. Louis, Mo.; dam, Countess, by Rodman's Dash. One Gordon bitch, eighteen months old; hunted this fall; staunch on quail and very fast, with good nose; will make a good one. One Gordon bitch eight months old. Full pedigree given with pups. H. B. VONDERSMITH, Lancaster, Pa. Nov 22 1f

FOR SALE.—A well broken pointer dog of good stock and pedigree, also, some fine setters, four months old, six months old. Address immediately, JOHN TOMKINS, Kennebunk, Me. j3 3f

FOR SALE.—My red Irish bitch "Bess," by Salter's celebrated "Dash," out of Straclean's "Bell," "Bess" whelped thirty-five puppies in three litters, and is a splendid field dog on woodcock, quail and snipe. Will sell "Bess" in whelp to imp. "York," if desired. Also, a pair of pups, four months old, by "York," out of "Bess." Address E. A. DIFFENDERFER, Lancaster, Pa. j3 3f

FOR Irish and native setters, dogs and bitches of all ages, broken and unbroken, address E. J. ROBBINS, Wethersfield, Conn. Oct 2

FOR SALE, when eight weeks old, six puppies out of my blue belton setter bitch, by Bob Boy. They are black and white. Two of them are black, white and tan, and are almost perfect images of their sire. For particulars, address L. F. WHITMAN, 5 City Hall, Detroit, Mich. j2 25 1f

DOGS.

DR. HENRY GARDNER, 1,742 Broadway, between 56th and 57th st., New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ag 27f

For Sale.

FOR SALE.—Second-hand Scott "Premier," 12 bore, 30-inch, 8 lbs. (all improvements.) C. L. RITZMANN, 943 Broadway, N. Y. j17 11 f

FOR SALE.—A London gun, in perfect order, and an extra shooter, 7 lbs., 12x28x2 1/2x14. Also, a Gordon gyp, splayed, three years, well broken on woodcock, partridge and ruffed grouse. A rare chance. Address Dr. J. McCLEERY, Milton, Pa. j17 11 f

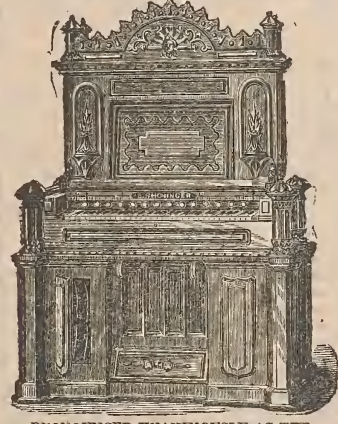
FOR SALE OR EXCHANGE.—A fine English double breech-loading rifle and shot combined, pistol-grip stock, 45-100 calibre, 12-bore; also a very fine English double breech-loading shot-gun, 12-bore, 20-inch barrels, laminated steel. Will exchange for a very large bore breech-loading duck gun, or sell cheap for cash. Address, FLORIAN, Office Forest and Stream. j17 11 f

FOR SALE, CHEAP.—Two first-class breech-loading shot-guns, 10 and 12-gauge; been used but little, and all as good as new; sold only as I have no time to use them. Address JOHN TOMKINS, Kennebunk, Me. j3 3f

SECOND-HAND.—A very fine Tolley breech loader, with two sets of barrels fitted to same stock; one pair 10-bore Damascus and very close shooting, other pair laminated steel and cylinder bore; weight, 9 lbs. and 9 1/2 lbs. This gun was made to order for the owner, and is very superior in every respect. Can be examined at gun store of HENRY C. SQUIRES, 1 Cortlandt street, N. Y. Nov 11 f

CITY AND COUNTRY PROPERTY bought, sold and exchanged. C. S. PECK, 8 West Twenty-first street, New York Sept 27 1f

HIGHEST HONORS AT THE Centennial World's Fair, 1876! THE SHONINGER ORGANS



PRONOUNCED UNANIMOUSLY AS THE Best Instruments.

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract: "The B. SHONINGER ORGAN CO.'S exhibit as the best Instruments at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, less liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either shrink, swell or split." THE ONLY ORGANS A AWARDED THIS HONOR.  
There are 50,000 of our instruments in this and the European countries in use, and they are so made that they will keep in tune, and stand any climate. They contain a magnificent Chime of Bells, tuned in perfect harmony with the reeds, producing wonderful effects. The Music Rack, when tuned forward, will make a splendid writing desk, with our Book Closets and Swinging Lamp or Flower Brackets, with a fine stool boxed free with each Organ, makes the SHONINGER ORGANS the most substantial, convenient and perfect Organ.  
ESTABLISHED 1850.  
We are prepared to appoint a few new Agents.  
A liberal discount to the Clergy, Sunday Schools, Teachers, Churches and Lodges.  
Illustrated Catalogues, with prices, sent by mail upon application to  
**B. SHONINGER ORGAN CO.,**  
97 to 123 Chestnut Street,  
NEW HAVEN, CONN.  
Retail price \$900 only \$900. Parlor Organs, price \$340 only \$355. Paper free. Dan'l F. Beatty, Washington, N. J. Dec 20  
**OLD GUARD BALL.**  
Military and Civil Reception at the Academy of Music, Third Regiment, January 21, 1878. Tickets, \$5, admitting gentlemen and ladies, can be obtained only from the officers and members of the battalion, Armory, 211 Fourth Avenue, near 17th street.  
Diplomatic corps, army and navy officers and members of the National Guard will appear in uniform. j17 11 f

W. W. Greener's CHOKE-BORE GUNS,

Tried on Game in America.

Supplied by H. C. Squires, 1 Cortlandt St. NEW YORK.

See the Following Testimonials:

Sir—I take a pleasure for me to inform you of my high appreciation of the 10-lb. Greener breech-loader purchased of you last winter. I consider choking boring, if skillfully done, as the greatest improvement in fowling—pieces since the introduction of the percussion cap. It gives the maker complete control of the pattern, and greatly increases penetration. To prove this, I will give you the performances of this gun. The 32-inch 10-gauge barrels, charged with 4 1/2 drachms of powder and 1 1/4 oz. No. 6 English chilled shot, give patterns ranging from 287 to 300 pellets in 90-inch circle at 80 yards—the same charge of powder and 1 1/4 oz. No. 4 American shot gives 160 to 175 pattern, with penetration which kills ducks at 50 to 75 yards like a stroke of lightning. It is characteristic of the choke-bore to show its greatest superiority in the large sized shot. What I am about to say will perhaps surprise you as much as the performance surprised me. On trial of the 12-gauge 32-inch modified choke-bore barrels, with 3 1/2 drachms of powder and 1 1/4 oz. of shot, I got about the same pattern and spread of shot at 25 yards as with the full choke 10-gauge barrels at 20 yards, with tremendous penetration. This is just the performance required of a gun for thick cover in which you generally find ruffed grouse, woodcock and quail, these birds being killed, with few exceptions, at from 15 to 25 yards.

COL. JOHN BODINE.  
Dear Sir—The guns arrived all right. We think these last guns you have sent us will place the Greener guns ahead of any other in this country, as guns of other makers don't compare in shooting qualities with them. We unhesitatingly recommend the Greener as far superior to any gun of foreign or domestic manufacture that we have seen. We say this after seeing and using guns of all the most celebrated makers. CARLISLE, JONES & CO. SELMA, Ala.

The Greener gun presented by Mr. Squires for the best pointer, and awarded to me, is a close cleaner, hard hitter, killing its game at very long distances. It is the second Greener that I have owned and they cannot be beaten. I wish with them at the trap or in the field. S. B. DILLEY, LAKE CITY, MINN.

Sir—I have a pair of W. W. Greener's breech-loaders (bought of H. C. Squires, of New York), modified choke-bore. I have had an opportunity to test these weapons on birds heavily feathered, and where great penetration was essential to success. I have repeatedly made long shots, always killing the game clean. At a target both guns made a very even distribution of the shot, with extreme penetration.

Sir—The Greener breech-loader I purchased of you is very fine indeed, and gives great satisfaction. WARREN, Pa. ROBERT DENNISTON.

W. W. GREENER, St. Mary's Works, Birmingham, England.

Sportsmen's Goods.

DECOY DUCKS.

M. C. WEDD

Manufacturer of Decoy Ducks, Mallards, Blacks, Canvas-Backs, Blue-Bills and Red-Heads. Extra size and very nice, by my customers sending their best models to copy, 50 cents each. 57 Manhattan street, Rochester, N. Y. W. G. BELL, j17

GOOD'S OIL TANNED MOCCASINS.

The best thing in the market for hunting, fishing, canoeing, snow-shoeing, etc. They are easy to the feet, and very durable. Made to order in a variety of styles, and warranted the genuine article. Send for illustrated circular. MAHTIN B. HUTCHINGS, P. O. Box 308, Dover, N. H. (Successor to Frank Good.) W. HOLBERTON, 102 Nassau St., N. Y., Agent.



Bonan's Metal Shell Cleaner.

Cleans fifty shells in ten minutes. No water used. Knives elastic, self-adjusting, prevent the slipping of wads. Is unequalled as a breech wiper by covering with an oiled cloth. For sale by all gun dealers, or sample sent free by mail on receipt of price \$1.50 to 10 and 12 bore. J. F. RONAN, 788 Shawmut avenue, Boston, Mass. Liberal discount to the trade) Nov 9

UNION SQUARE HOTEL.

UNION SQUARE, Corner 16th Street, New York.

A. J. DAM & SONS, Proprietors.

**Gunpowder.**  
**Warren Powder Mills**  
 MANUFACTURERS OF  
 BLASTING AND MINING, SHIPPING AND  
 SPORTING GUNPOWDER.

SPORTING BRANDS—Eureka, Continental  
 "Border Rifle," Snap-Shot, and Warren Sporting  
 Cannon and Musket, U.S. Standard. The above can  
 be had of the dealers, or at wholesale at the office,  
 27 Deane street, Boston, Mass., and of the agents,  
**JOHN P. LOVELL & SONS**, corner of Wash-  
 ington, Cornhill and Brattle streets, Boston, Mass.  
 JY19

**THE  
 HAZARD POWDER CO.,**  
 MANUFACTURERS OF  
**GUNPOWDER,**  
 Hazard's "Electric Powder."

No. 1 (fine) to 6 (coarse). Unsurpassed in point of  
 strength and cleanliness. Packed in square canis-  
 ters of 1 lb. only.

Hazard's "American Sporting."  
 Nos. 1 (fine) to 6 (coarse). In 1 lb. canisters and  
 6 1/2 lb. kegs. A fine grain, quick and clean, for  
 upland prairie shooting. Well adapted to shot-  
 guns.

Hazard's "Duck Shooting."  
 Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters  
 and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very  
 clean, shooting remarkably close and with great  
 penetration. For field, forest or water shooting, it  
 ranks as another brand, and it is equally serviceable  
 for muzzle or breech-loaders.

Hazard's "Kentucky Rifle."  
 FFG, FFG, and "Sea Shooting" FG, in kegs of 25,  
 12 1/2 and 6 1/2 lbs. and cans of 5 lbs. FFG is also  
 packed in 1 and 1/2 lb. canisters. Burns strong and  
 moist. The FFG and FFG are favorite brands for  
 ordinary sporting, and the "Sea Shooting" FG is  
 the standard Rifle powder of the country.

**Superior Mining and Blasting Powder.**  
 GOVERNMENT CANNON & MUSKET POWDER;  
 ALSO, SPECIAL GRADES OR EXPORT OF  
 ANY REQUIRED GRAIN OR PROOF, MANU-  
 FACTURED TO ORDER.  
 The above can be had of dealers, or of the Com-  
 pany's Agents in every prominent city, or wholesale  
 at our office,  
 88 WALL STREET, NEW YORK.

**ORIENTAL  
 POWDER MILLS**  
 MANUFACTURERS OF ALL KINDS OF  
**GUNPOWDER**

Once—13 BROAD STREET, BOSTON.  
 BRANDS—DIAMOND GRAIN.  
 FALCON DUCKING.  
 WILD FOWL SHOOTING,  
 WESTERN SPORTING,  
 (Oriental Rifle.)

The "Oriental" powder is equal to any made; no  
 expense is spared to make the best.

BRANCH OFFICES.  
 J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y.  
 Cobb & Wheeler, Agents, 9 State St. Chicago, Ill.  
 O. J. Chapin, Agent, 215 Locust St., St. Louis, Mo.  
 Agencies in the principal cities in the United States.



**JEWELERS AND SILVERSMITHS,**  
**HARTFORD, CONNECTICUT,**  
 DEALERS IN  
 Diamonds, Silverware, Watches, Jewelry, etc.  
 IMPORTERS OF  
 FRENCH, GERMAN, AND ENGLISH FANCY GOODS.  
 SPECIAL ATTENTION GIVEN TO THE MANUFACTURE  
 OF APPROPRIATE DESIGNS FOR  
 Shooting, Boating, Racing, and other Prizes.

**OUR  
 ILLUSTRATED CATALOGUE,**  
 CONTAINING  
 Three Dozen Wood Cuts of the above and other articles  
 in our line, and including the  
**GAME LAWS OF CONNECTICUT,**  
 Mailed to any Address, on receipt of 50 CENTS.

**N. Y. Newspaper Mailing Agency**  
 With the latest improved Newspaper Folding and  
 Mailing Machines, No. 13 Spruce street.  
**JAMES BRADY, Manager and Proprietor.**

**Sportsmen's Goods.**  
**BOSTON**  
**SHOOTING SUIT.**  
 Manufactured only by  
**G. W. SIMMONS & SON,**  
 BOSTON, MASS.

**THE BEST IN USE.**  
 ONLY ONE QUALITY MADE AND THAT IS THE  
 VERY BEST.

Each article—coat, trousers, vest and hat—  
 have the name and manufacturer's address  
 stamped upon it, and no suit is genuine without  
 it bears this imprint.

The suit can be sent, securely packed, by mail  
 to any part of the United States or Canada on  
 receipt of \$1.25 above the price of the suit.

We make no discount except to the trade. We  
 make but one quality, and that is the VERY BEST.  
 The price of the suit complete is \$13.

The suit consists of coat, trousers, vest, and  
 choice of either cap with havelock, or hat.

The material is of the best quality of duck,  
 waterproofed by a patent process. The color is  
 that known as "dead grass shade."

The seams and pocket corners are riveted, and  
 nothing is neglected to make the whole suit com-  
 plete in every way.

**OUR PATENT DECOYS**  
 have entirely superseded the old-fashioned cum-  
 oserom, wooden decoys. The birds are hollow,  
 and six of them occupy about the space of one  
 wooden decoy. The Duck Decoys of all kinds  
 are \$12 per dozen; geese, \$3 each; yellow leg,  
 \$4.25 per dozen; black breast plover, \$3.75 per  
 dozen; red breast plover, \$3.75 per dozen;  
 go on plover, \$3.75 per dozen; turnstone,  
 chicken plover, etc., \$3.75 per dozen; sandpipers,  
 \$3.00 per dozen. We are now making standing  
 geese for field shooting.

**THE HUNTER'S TENT**  
 made of tan-colored duck; light, easily trans-  
 ported. Size, 7 ft. by 8 ft. Price, \$10 complete,  
 made on the umbrella principle, folding into a  
 neat roll 3 feet long.

In the judges' report at Philadelphia they were  
 commended for excellence in every part. Very  
 novel and practical; adapted to all out-of-door  
 purposes where lawn, beach, hunters and camp  
 tents are used; quick folding; all sides strongly  
 fortified; enables them to stand against wind  
 and rain. Rev. F. B. Savage, of Albany, N. Y.,  
 who camps out in Florida in winter, and the  
 Adirondacks in summer, writes this about the  
 tents:

ALBANY, July 31, 1877.  
 SIRS—I have just returned from a three-weeks'  
 camping expedition in the Adirondacks, and have  
 had the three tents bought of you put to the severest  
 tests of exposure both as to wind and storm, and I  
 do most unhesitatingly say they are the most com-  
 plete thing of the kind I ever used.

1st. They are easily put up or taken down.  
 2d. They are perfectly waterproof.  
 3d. They are a good height and all the room is  
 available.

Our party asked for no better. They were admired  
 by all who saw them, and one party insisted on buy-  
 ing one of ours that was to spare. Rev. Dr. Durycie,  
 of Brooklyn, and the Rev. Dr. Irwin, of Troy, both  
 endorse what I say about your tent. With kind re-  
 gards, yours truly,  
 F. B. SAVAGE.

**Tan-Colored Leather Pliable  
 Waterproof Suits.**  
 Shooting Coats, Jackets, Breeches, Vests and  
 Hats at following prices: Coats, \$22; Breeches,  
 \$15; Jackets, \$18; Vests, \$12. These form the  
 most elegant shooting equipment known. They  
 are indestructible.

A recent notice in the FOREST AND STREAM  
 from a correspondent, says:

Whenever a sportsman, or even one who does not  
 claim the distinction, finds a really good and useful  
 article, it is no more than fair that he should let  
 others have the benefit of his knowledge. For this  
 reason we would call attention to the Tan-colored  
 Leather Shooting or Fishing suits, made by G. W.  
 SIMMONS & SON, of Boston, Mass., the manufac-  
 turers of the famous "Boston Shooting Suit."

I saw these goods advertised in your paper, and  
 wrote the parties for samples. I found the ma-  
 terial as soft and pliable as a piece of kid. I tested  
 it by soaking in water twelve hours, and found it  
 as nearly waterproof as one could desire, and after dry-  
 ing was happily surprised to find it had not stiffened  
 in the least. I have since then received a full suit—  
 coat, vest and breeches—ordered by letter from  
 measure taken by myself.

The goods are splendidly made, well lined with  
 flannel; in fact I do not see how they can be im-  
 proved.

My friends are unanimous in their verdict that G.  
 W. Simmons & Son's leather goods cannot be ex-  
 celled in quality or beaten in price.

For every kind of sportsmen's goods address  
**G. W. SIMMONS & SON,**  
 Oak Hall, Boston, Mass.

PRICE, BOXED, WITH DARTS, SLUGS,  
 TARGETS, &c., \$10.  
 FULL NICKEL PLATE  
 \$12.

**THE NEW IMPROVED AIR RIFLE.**  
 Especially Adapted for Target Practice.  
 SPLENDID FOR SHOOTING SMALL GAME and touching up  
**CATS OR DOGS.**  
 Just the thing for Taxidermists to collect specimens. There is no report or dan-  
 ger attending its use, or any auxiliaries required to operate it. It can be loaded with  
 ease and rapidly. It is extremely simple, and has no delicate parts to get out of order or wear  
 out. For sale by the Trade generally. Sent upon receipt of price or C. O. D.  
 SEND FOR CIRCULAR. H. M. QUACKENBUSH, Patentee and Mfr, Herkimer, N. Y.

**Hart's Sportsman's Favorite Metallic Shells.**  
**FOR BREECH-LOADING SHOT GUNS.**

These Shells are easily loaded, and the caps easily extracted from inside.  
 Head solid and much thicker than any Shell now made, giving a solid set for cone or snail, which prevents  
 it from driving through or springing away, thereby causing miss-fires. The Cone is made of nickel, and is  
 fastened solid in its place. Neither rusts nor corrodes fast, like movable snail made from steel. The Nickel  
 Cone also prevents miss-fire when a cap has been left on shell for a few days, which is liable to occur either  
 in steel or iron. These Shells are finely finished, and made any length ordered, from 2 1/2 to 3 1/2 inches.  
 Shells and Loaders and Descriptive Price-Lists can be obtained from all the leading Sportsmen's Houses  
 GEO. E. HART & CO., Newark, N. J.  
 FROM CAPTAIN BOGARDUS, CHAMPION WING-SHOT OF AMERICA.  
 MESSRS. GEORGE E. HART & Co.—Gentlemen: The fifty Shells I received from you to-day suit me better  
 than any I have ever used. They are stronger and better in every respect, and I shall use them in all my  
 shooting hereafter.  
 Yours truly,  
 A. H. BOGARDUS.

**A VICTORIOUS INVENTION**  
**The Eagle Claw.**

An ingenious device for the purpose of catching all kinds of  
 Animals, Fish and Game.  
 The easy method of setting the Eagle Claw, combined with  
 the simplicity of removing the victim, are among its peculiar  
 advantages.  
 It is immaterial how to place it when set. It may be buried  
 flat in the ground, suspended from the limb of a tree, or, when  
 occasion requires, covered with grass, leaves or other light  
 material without in any way impairing its certain operation.  
 It is adapted for bats of any description, and, when set, no  
 Animal, Fish or Bird that touches the bait can possibly escape.  
 It does not mangle or injure its victims in the slightest  
 degree, nor need they be handled to free them from the trap.  
 PRICE LIST.  
 No. 1—For fishing and all kinds of small game and animals,  
 sent by mail..... 35 cents.  
 No. 2—For catching Mink, Muskrats, Raccoons, large Game,  
 Fish, etc..... 75 cents.  
 No. 3, or Rocky Mountain Giant, for catching Bears, Wolves,  
 Panthers, etc. Can be easily set by a boy, and will stand a  
 strain of several hundred pounds. Weight, 10 to 15 lbs. \$10.  
 All goods sent, charges paid, to any address on receipt of  
 price. Address

**Stent & Co., Mfr's. Agents,**  
 132 Nassau St.,  
 NEW YORK.  
 P. O. box 2997.

**SHARPS' RIFLES---MODEL 1878.**

ORDERS FOR THE NEW MILITARY AND LONG-RANGE RIFLE ARE NOW BEING FILLED.  
**SEND FOR ILLUSTRATED PRICE LIST.**  
**Sharps' Rifle Co., Bridgeport, Conn.**  
 NEW YORK WAREHOUSES, 177 BROADWAY.

**COLT'S REVOLVERS.**

Great reduction in the price of the New Model; \$2, 30,  
 32, 33 and 41 calibres. Send for new reduced price list of  
 Revolvers, Boxing Gloves, Air Guns, Novelties and  
 Sportsmen's Goods.

**Fish & Simpson,**  
 P. O. Box 4, 963, 132 NASSAU ST., N. Y.

ESTABLISHED IN 1837.  
 Consult your interest by sending for our revised and reduced prices.

**Excelsior** LATEST IMPROVEMENT.  
 Double Treadle, including one des-  
 cending saw, rotary mangle, Press Sawing  
 Patterns and prepared Wood, to the  
 value of \$4. A Saw-feeding Tighten-  
 ing Saw, Power Drilling attachment,  
 Wrench, Oil Cup and Screw Driver,  
 Sander, 80 strokes per minute. Saws,  
 11-inch thick. Price, complete, cased  
 and delivered on board cars or at Ex-  
 press office, \$25.  
 Saw only, without attachments, \$9.

**Scroll Saw** SMALL STEAM ENGINES.  
 With Copper Boiler, to drive light  
 Lathes, Scroll Saws, etc. Are all sizes  
 from 1 1/2 up to a horse power; either  
 plain castings, partly finished, or com-  
 plete, ready for use.  
 The "Scientific American" of June 20,  
 1876, says of the above, in an extensive  
 Editorial, introducing our manufactures  
 to the public: "It can turn wringers,  
 churns, washing machines, or ice cream  
 freezers, run coffee mills, pump water  
 through a house, actuate foot lathes,  
 scroll saws or light loom machinery,  
 run knitting or sewing machines, turn  
 a grindstone or emery wheel, work ven-  
 tilating or hand thrashing machine cut-  
 ters, meat or feed choppers, or sausage  
 machines, drive small blowers for pneu-  
 matic dispatch tubes in a building, or fire  
 a blacksmith's forge, or compress air or work  
 an air pump on a small scale in a laboratory."  
 Also Engines and Boilers capable of prop-  
 15 to 18 inches. The boats have keel, stem,  
 with rudder and tiller, row locks and oars;  
 These wishing a pleasure boat will find

**Buffalo Pony Planer** NEARLY ONE THOUSAND IN USE.  
 Buffalo Pony Planer. Will earn it-  
 self and pay expenses of running 3  
 days. Price from \$50 and upwards,  
 each.

**Light Machines for Pony  
 or Horse Power.** The great success of these machines  
 is unprecedented, and it may be con-  
 siderably affirmed that no article has  
 given more credit to its inventor than  
 this. It is made in several sizes, and  
 can be fitted up suitable for bullock, mule, steam or wind power, in addition  
 to those above mentioned.

**Patented March 30, 1875.**  
 Best of its kind in use.  
 Price, complete, \$75.  
 Also Planing Machine  
 Knives, which are recom-  
 mended as superior and  
 extra in quality.

Boats from 25 to 35 feet long, 4 to 6 feet beam, with drift of water  
 stern and rudder post of oak, pine planking, copper fastened throughout, fitted  
 seats all around the boat, lockers and coal bunkers, and have two coats of paint.  
 These are the safest and fastest, as they can be made to attain a speed of from 6 to  
 16 miles per hour.  
 They are adapted to  
 a great variety of uses,  
 such as Excursion,  
 Shooting, Fishing or  
 Pic-Nic Parties, for  
 travelers, voyagers,  
 boatmen and oarsmen,  
 and especially owing  
 to the light draft of  
 the boats and its light  
 water for exploring expeditions and surveying parties. The Engine and Boiler can be easily detached from the boat, when power is needed  
 available for Agricultural, Mechanical, Commercial or Domestic requirements or for the use of Amateurs, when power is needed  
 for running light machinery.  
 Price of 20 foot boat, complete..... \$125.00  
 Price of Engine and Boiler, without boat, including driving pulley,..... 275.00

Illustrated Catalogue containing Catalogue of our Work Desires mailed to any address free on receipt of Stamp.  
**GEORGE PARR, BUFFALO, N. Y., U. S. A.**

Publications.

LONG-RANGE RIFLE SHOOTING.

A Complete History of the International Long-Range Matches, 1873-1877—Complete Elcho Shield Scores—Rules and Regulations of the N. R. A. Etc., Etc.

FULLY ILLUSTRATED

BY THE RIFLE EDITOR OF THE "FOREST AND STREAM AND ROD AND GUN."

Price 25 cents.

NEW YORK.

Published by the Forest and Stream Pub. Co. 1877.

Bound Volumes of Forest and Stream.

EIGHTH VOLUME, NOW READY.

First Four Volumes, \$4 each, Others, \$3.50.

A complete set of the FOREST AND STREAM—seven volumes, bound handsomely in cloth—a valuable library for the sportsman—can now be obtained on application to this office.

BINDERS.

Get your fine books bound. Art Journal bound uniform to London publishers' style. Pictorial America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done in two or three days if required.

E. WALKER'S SONS, 14 Dey street.

Camp Life in Florida.

BY CHARLES HALLOCK,

AUTHOR OF THE FISHING TOURIST.

Published by Forest and Stream Publishing Co.,

NO. 111 FULTON STREET, NEW YORK.

And for sale by all booksellers. Sent by mail, postage prepaid, on receipt of price (\$1.50) at office of publication.

FRANK SCHLEY'S AMERICAN



Partridge & Pheasant Shooting.

Describing the Haunts, Habits, and Methods of Hunting and Shooting the American Partridge—Quail, Ruffed Grouse—Pheasants, with directions for handling the gun, hunting the dog, and shooting on the wing. Price, \$2. Liberal discount to the trade.

To be had at book stores generally. Address,

Frank Schley, Frederick City, Md.

KNOW THYSELF

A new Medical treatise, "The Science of Life, or Self-Preservation, a book for everybody." Price \$1, sent by mail. Fifty original prescriptions, either one of which is worth ten times the price of the book. Gold medal awarded the author. The Boston Herald says: "The Science of Life is, beyond all comparison, the most extraordinary work on Physiology ever published." An Illustrated Pamphlet sent FREE. Address DR. W. H. PARKER, No. 4 Bulfinch Street, Boston, Mass.

HEAL THYSELF

The Southern Guide.

A finely illustrated quarterly periodical, exhibiting the characteristics and resources of the Southern States. One dollar per year; single copies, 25 cents. Published by

BRAMHALL & CO., Washington, D. C.

Dec 5th

POULTRY WORLD—A splendidly illustrated monthly, \$1.25 a year. Send 10 cts for a specimen copy. Address POULTRY WORLD, Hartford, Conn. Dec 17th Ex

Publications.

Sportsman's Gazetteer

AND

GENERAL GUIDE,

By CHARLES HALLOCK, Editor "Forest and Stream and Rod and Gun."

896 pp., Price \$3.

Tinted Paper, \$4; half-bound mo., \$5.

A complete Dictionary for Sportsmen. Everybody wants it that has a dog, gun or fishing rod. A complete description of all kinds of Game, Fish, etc. Field Sports, Woodcraft, Angling, Fly Tying, Dogs, Dog Breeding, Diseases and Treatment, Boating and Boat-building. Several thousand localities where game and fish are to be found. Nothing of the kind ever before published worth ten times the price.

PUBLISHED BY

FOREST & STREAM PUBLISHING CO. 111 Fulton street, New York.

KANSAS.

All about its Soil, Climate, Resources, Products, Laws, and its People are given in the "Kansas Farmer," a 10-page Weekly, in its fifteenth year. Postpaid, three months, 60 cents. Address

J. K. HUDSON, Top-ka, Kansas. Has quickly taken a high place among agricultural journals.—N. Y. Tribune. We have considered it among the best of our exchanges, and a worthy representative of the West.—Practical Farmer, Philadelphia. Our Kansas friends should feel much pride in the high character and sterling worth of their State agricultural paper.—National Live-Stock Journal. We cheerfully credit it with being one of the best edited of our Western agricultural exchanges.—Spirit of the Times, N. Y.



HOW TO LIVE IN FLORIDA, HOW TO GO, COST OF TRIP, COST TO SETTLE, what localities, how to cultivate, etc., etc., all told in each number of Florida New Yorker, published at 21 Park Row, New York City, Single copy, 10 cents. One year \$1. 40 Acres Orange Land for \$50. On line of railroad, country healthy, quickly settled. Address: R. OLIVER, Gen'l Agent, Box 530, New York

Sportsmen's Routes.

FOR FLORIDA

FOR THROUGH TICKETS TO FERNANDINA JACKSONVILLE, ST. AUGUSTINE, SANFORD, ENTERPRISE and intermediate landings on ST. JOHN'S RIVER and interior points in FLORIDA, by steamship to SAVANNAH, and thence by railroad or steamboat, apply to WM. L. JAMES, General Agent.

Philadelphia and Southern Mail S. S. Co., Pier 22 South Delaware Avenue, Phila.

Dec 14-ly

"The Bermudas."

NOW A FAVORITE AND DELIGHTFUL WINTER RESORT, is reached in seventy hours from New York, and being surrounded by the warm waters of the Gulf Stream enjoys an equable temperature of about 70 deg.

The elegant British Steamships "Bermuda" and "Gambua," 7,000 tons, fitted expressly for the passenger travel, are dispatched from New York for Bermuda fortnightly, making connection at Bermuda with steamers for St. Thomas and West Indies. For full information apply to A. E. OUTERBRIDGE, Agent, 29 Broadway, N. Y. Dec 21 ly.

St. Paul and St. Louis Short Line.

Burlington, C. Rapids & N'rth'r Railway.

QUICKEST, CHEAPEST AND BEST.

TWO PASSENGER TRAINS EACH WAY DAILY crossing and connecting with all East and West Lines in Iowa, running through some of the finest hunting grounds in the Northwest for Geese, Ducks, Pinnacled and Ruffed Grouse and Quail. Sportsmen and their dogs taken good care of. Reduced rates on parties of ten or more upon application to General Ticket Office, Cedar Rapids. Gen. J. V. EE, E. P. WASSLOW, Gen. Passenger Agent, Burlington, Iowa.

Sportsmen's Routes.

REDUCTION OF FARE.

\$3 NEW YORK TO BOSTON

VIA THE

Fall River Line

To Boston and Return, \$5.

Magnificent Steamers NEWPORT and OLD COLONY leave New York daily (Sundays excepted) at 4:30 P. M. This is the only Sound Line giving passengers a FULL NIGHT'S REST. Passengers take any one of the FIVE MORNING TRAINS from Fall River to Boston. BORDEN & LOVELL, GEO. L. CONNOR, Agents, General Pass Agent.

NEW YORK AND PHILADELPHIA NEW LINE

FOR TRENTON AND PHILADELPHIA. COMMENCING NOVEMBER 26, 1877. STATION IN NEW YORK—Foot of Liberty St. N. R. Leave New York for Trenton and Philadelphia at 6:30, 9:30, 11:30 A. M., 1:30, 3:30, 5:30, 12 P. M., and at 4 P. M. for Trenton. Leave Philadelphia from station North Pennsylvania Railroad, Third and Berks streets, at 12:05 7:30, 9:30, 11:30 A. M., 1:30, 3:30, 5:30 P. M. Leave Trenton for New York at 1:20, 6:35, 8:05, 10:20 A. M., 12:15, 2:15, 4:10, 6:15 P. M. Pullman Drawing Room Cars are attached to the 9:30 A. M., 3:30, P. M. trains from New York and to the 7:30 A. M., 1:30 P. M. trains from Philadelphia. SUNDAY TRAINS—Leave New York and Philadelphia at 9:30 A. M., 5:30, 12 P. M. Leave Trenton for New York at 1:20, 10:20 A. M., 6:10 P. M. Tickets for sale at foot of Liberty street, Nos. 529 and 84 Broadway, at the principal hotels, all offices of the Erie Railway in New York and Brooklyn, and at No. 4 Court street, Brooklyn. Baggage checked from residence to destination. Sept 13 H. P. BALDWIN, Gen. Pass. Agent.

GREAT SOUTHERN Freigh t & Pass'nger Line,

VIA

Charleston S. C. The South and the Southwest

FLORIDA PORTS, Wednesday and Saturday

At 3 o'clock P. M. From Pier 27, N. R.

CITY OF ATLANTA, CHARLESTON, Capt. M. S. Woodhill, Capt. R. W. Lockwood, SANTIAGO DE CUBA, G. W. CLYDE, Capt. S. Crowell, Capt. Ingraham.

Sportsmen's Routes.

Safety, Speed and Comfort.

Close Connections at Charleston with the favorite and well-known Florida packets, DICTATOR, Capt. Vogel; CITY POINT, Capt. Scott, for FERNANDINA, JACKSONVILLE, ST. AUGUSTINE, PALATKA, ENTERPRISE, MELONVILLE and all points in Florida.

EXCURSION TICKETS AT REDUCED RATES.

Insurance to destination ONE-HALF OF ONE PER CENT. Goods forwarded in care of Commission. Passage tickets and Bills of Lading issued and taken at the office of JAMES W. QUINTARD & CO., Agents, Pier 27, N. R., foot Park Place. Office on the wharf.

W. P. CLYDE & CO., No. 6 Bowling Green. Through Freight Tickets, Passage Tickets by all routes and to all points in the South and Southwest, and further information can be obtained at the office of BENTLEY D. HASELL, General Agent, of Great Southern Freight Line, 317 Broadway, corner of Thomas street. Oct 11 5m

TO SPORTSMEN:

THE PENNSYLVANIA R. R. CO.

Respectfully invite attention to the Superior Facilities

afforded by their lines for reaching most of the TROTTLING PARKS and RACE COURSES in the Middle States. These lines being CONTINUOUS FROM ALL IMPORTANT POINTS, avoid the difficulties and dangers of reshipment, while the excellent cars which run over the smooth steel tracks enable STOCK TO BE TRANSPORTED without failure or injury. The lines of

Pennsylvania Railroad Company also reach the best localities for GUNNING AND FISHING

in Pennsylvania and New Jersey. EXCURSION TICKETS are sold at the offices of the Company in all the principal cities to KANE, RENOVIA, BEDFORD, CRESSON, RALSTON, MINNEQUA, and other well-known centers for Trout Fishing, Wing Shooting, and Still Hunting. Also, to

TUCKERTON, BEACH HAVEN CAPE MAY, SQUAN, and points on the NEW JERSEY COAST renowned for SALT WATER SPORT AFTER FIN AND FEATHER.

L. P. FARMER, Gen'l Pass. Agent, FRANK THOMSON, Gen'l Manager. 1674-5

Old Dominion Line.

The steamers of this Line reach some of the finest waterfowl and upland shooting regions in the country. Connections direct for Chincoteague, Cobb's Island, and points on the Peninsula. City Point, James River, Currituck, Florida, and the mountainous country of Virginia, Tennessee, etc. Norfolk steamers sail Thursday and Saturday, Delaware, Monday and Friday at 3 P. M. Full information given at office, 197 Greenwich St., New York Sep 28 ly

Sportsmen's Routes.

ST. AUGUSTINE, FLA., NASSAU, N. P., HAVANA, CUBA.

From Savannah, Ga., to Nassau, N. P., and Havana, Cuba, via St. Augustine, Fla., steamship San Jacinto will sail Jan. 29, Feb. 12 and 26, and every alternate Tuesday. Connecting steamers leave New York on Jan. 26, Feb. 8 and 22.

FOR NASSAU DIRECT,

Steamship Carondelet, February 6 and March 9, and monthly thereafter from Pier 16, East River, New York.

For all particulars, illustrated Guide, etc., apply to MURRAY, FEHRIS & CO., No. 62 South St.

ONLY DIRECT FLORIDA LINE.

For Fernandina, Fla., Port Royal, S. C., and Brunswick, Ga.

Sailing every FRIDAY from Pier 20, E. R., at 3 P. M.

Close connection made at each port with all railroads for the interior, and at Fernandina with the steamer Carrie (which has been refurnished), for Jacksonville and the St. John's River.

For through rates of freight and passage to all points in the South and Southwest, apply to G. H. MALLORY & CO., Agents, 153 Maiden Lane, Nov 29 4m NEW YORK.

NEW HAVEN, HARTFORD, SPRINGFIELD, AND THE NORTH.

The first-class steamer ELM CITY leaves Pier 25, East River, daily (Sundays excepted) at 3 P. M. Passengers to North and East at 12 P. M.

NIGHT LINE—The CONTINENTAL leaves New York at 11 P. M., arriving in New Haven in time for the early morning trains. Merchandise forwarded by daily express freight train from New Haven through to Massachusetts, Vermont, Western New Hampshire, Northern New York and Canada. Freight received until 5 P. M.

RICHARD PECK, General Agent.

HUNTING

FOR DEER, BEAR, PARTRIDGES, DUCKS, Take the Grand Rapids and Indiana Railroad.

FISHING

FOR PHE, PICKEREL, BASS, ETC, Follow the G. R. and I.—The "Fishing" Line

Time, New York to Grand Rapids, 37 hours.

EXPENSES LOW.

Shooting season expires December 15. For information as to routes, rates and best points for the various kinds of game, etc. Apply to

A. B. LEET, Gen. Pass Agent, A. HOPPE, Grand Rapids, Mich. Eastern Agent, 116 Market St., Phila., Pa. Nov 22 1m

STONINGTON LINE, FOR BOSTON AND ALL POINTS EAST.

REDUCED FARE: Elegant Steamers STONINGTON and NARRAGANSETT leave Pier 33 North River, foot Jay St. at 5:00 P. M. NOT A TRIP MISSED IN SEVEN YEARS.

Tickets for sale at all principal ticket offices. State rooms secured at offices of Westcott Express Company, and at 383 Broadway, New York, and 333 Washington St., Brooklyn.

PROVIDENCE LINE. Freight only, steamers leave Pier 37, North River, foot Park Place, at 4:30 P. M. Freights via either line taken at lowest rates.

L. W. FILKINS, G. P. Agent, D. S. BABCOCK, Pres.

Hotels and Resorts for Sportsmen.

Wild Fowl Shooting.

SPRINGVILLE HOUSE OR SPORTSMEN'S RESORT, SHINNECOCK BAY, L. I.

By a practical gunner and an old bayman. Has always on hand the best of boats, batteries, etc., with the largest rig of trained wild-geese decoys on the coast. Special attention given by himself to his guests, and satisfaction guaranteed. Address WM. N. LANE, Good Ground, L. I. Nov 8 1m

Metropolitan Hotel,

WASHINGTON, D. C.

Carrollton Hotel,

BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.

THE METROPOLITAN

is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and re-furnished throughout. The cuisine is perfect; the service regular, and charges moderate.

R. B. COLEMAN & CO.

HALSEY HOUSE,

ATLANTICVILLE, LONG ISLAND,

is near New York City than any house bordering on Shinnecock Bay. Is as near, and has as good shooting grounds, and as experienced attendants (with live-geese and other decoys, batteries, etc., always on hand) nearer the station; the largest and the best kept house in the bay. L. I. R.R. to Atlanticville station. Fare, 22. Stage meets all trains. W. F. HALSEY, Owner and Proprietor. Atlanticville, L. I., Oct. 20, 1877. Oct 25

Hotels and Resorts for Sportsmen.

Sportsmen's Headquarters

FOR WIN S, LIQUORS AND CIGARS.

Outfits for yachting, The camp or field a specialty. Olives by the case, gallon or bottle.

THOS. LYNCH, IMPORTER,

99 NASSAU ST., Bennett Building, New York. Sept 27

C. M. BRENNAN,

OLD KENTUCKY BOURBON & MONONGAHELA South Clark Street, Chicago.

Guns, Rifles, Etc.

Second-Hand Guns

AND SPORTING GOODS,

WHICH CAN BE BOUGHT CHEAP AT

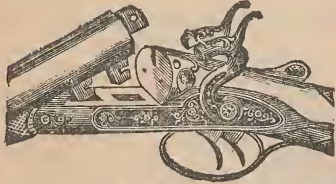
J. F. MARSTERS,

125 NASSAU ST., N. Y.

- One Scott Premier 10-gauge choke-bore, weight 9 lbs., in first-class order, with case, price ... \$225
One Remington Sporting Rifle, made to order, pistol grip, rubber heel to prevent recoil, .44-calibre ... 50
One Hollis' 10-bore, 9 lb., pistol-grip, rebounding locks ... 70
One Remington Military Rifle, 1,000-yard range ... 75
One French Double Gun, pin-fire, 16 gauge ... 25
One More & Ha ris Muzzle-Loader, 10-gauge, 8 1/2 lbs., double gun ... 85
One Hollis' Ducking double gun, 5 gauge, 14 lb. ... 25
One Scott Muzzle-Loader, 12 lb., 8-gauge, 34-in. ... 25
One Ballard Rifle, .44-cal., 10 lbs. ... 20
One Colt's Revolving Rifle, 6 shot ... 18
One Maynard Rifle, little the worse for wear ... 8
One Single Muzzle-Loader, 10-gauge, cost \$45 ... 15
One Single Breech-Loader, Stephen's make ... 10
One Skeleton Stock Stephen's Rifle, .22-calibre, in case ... 12
One General Fishing Rod, will make up five different rods, German silver-mounted, cost \$40 ... 20
One large German silver trolling reel, holds 600 feet line ... 10
J. F. MARSTERS, 125 Nassau st., N. Y.

THE

CHOKE-BORE MATCH.



W. W. GREENER begs to inform his numerous patrons in America that his gun has again come off victorious at the great match of Choke-Bores vs. Cylinder Bores, at the London Gun Club, on May 23, beating seventeen of the best shots in Great Britain who used guns by the best London makers, viz.: Four made by Grant, three by Purdy, three by Dougal, one by Lancaster, Boss and others.

[See London Field, May 26, Editorial Remarks.]

"Mr. Cholmondeley Pennell, the winner of Mr. Purdy's massive fifty guinea cup, weighing over 91 ozs., for the highest score, shot wonderfully well, killing all his birds at 30 yards with the long barrel. The gun he used was a full choke, by Greener, of Birmingham. The result of the trial served to show the superiority of the choke at the long range. Mr. C. Pennell cutting down his birds in a marvellous way with his heavy Greener."

W. W. GREENER,

St. Mary's Works, Birmingham, and 68 Haymarket, London.

Read "Choke-Bore Guns and How to Load," by Cassell, Peck & Galpin, New York.

Fishing Tackle.

H. L. LEONARD,

Manufacturer of every variety of

FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty

Every Rod bearing my name is six strands from butt to extreme tip, and mounted with my "patent waterproof ferrules," and warranted against imperfections in material and workmanship.

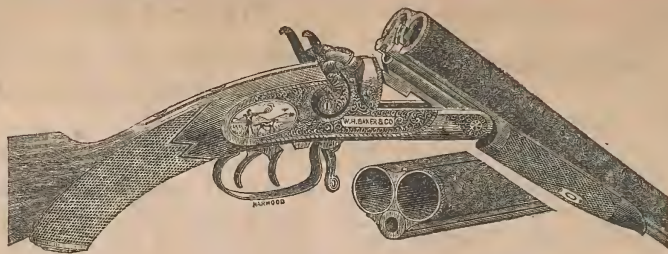
Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancewood, MADE TO ORDER.

I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods.

MANUFACTORY, BANGOR, MAINE.

A variety of my rods may be found at

No. 19 BEAVER ST., New York City (Up Stairs).



Three-Barrelled Breech-Loading Guns, TWO SHOT AND ONE RIFLE.

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very using so often wanted in all kinds of shooting.

PRICES—Three barrel, \$75 to \$250. Double barrel shot guns. Damascus barrel, \$50 to \$200. Twist barrel, \$35.

SEND FOR NEW CIRCULAR.

W. H. BAKER & CO., Syracuse, New York.

IRA A. PAINE'S CHAMPION FILLED GLASS BALL.

PATENTED OCTOBER 23.

MAKE THE FEATHERS FLY WITHOUT KILLING THE BIRD—SOMETHING MUCH NEEDED.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the services of that well-known Sportsman, IRA A. PAINE, to take entire charge of the production of his new Patent Feathering Ball, which we hold the exclusive right to make and sell.

They will eventually be the Standard Ball. Out of One Million already sold, not one complaint. No Fancy Price, but a fair profit. Every ball is warranted to give satisfaction. The number of orders from all parts of the country speak volumes.

Every ball is weighed and examined, then packed with the greatest care, in barrels of 300. Send for price list. Special inducements to the trade.

HEADQUARTERS BOHEMIAN GLASS WORKS, 214 Pearl Street, N. Y.



Bogardus' Patent Rough Glass Balls and Glass Ball Traps.

These Traps are the only ones that give satisfaction, as they are simple of construction, easily set, and not liable to get out of order, and they throw the ball in a manner that more closely resembles the flight of a bird than any other trap in the market.

CAPTAIN BOGARDUS was the first to introduce the ROUGH BALL, and at a price far below the smooth ball at that time.

MY IMPROVED TRAP (warranted), which will throw a ball in any direction from the shooter at the option of the puller, is now ready for the market. Price \$5.

HEADQUARTERS FOR BALLS, HAGGERTY BROS., 10 Platt Street.

FOR TRAPS, GEO. E. HART & CO., Newark, N. J.

Second and enlarged edition of "Field, Cover and Trap Shooting," containing instructions for Glass Ball Shooting, will be ready Feb. 1. Price \$2, by mail, postage paid. Address, Capt. A. H. BOGARDUS, International Hotel, N. Y.

THE UNITED STATES CARTRIDGE COMPANY, LOWELL, MASS.

Manufacturers of the

CENTRAL FIRE, SOLID HEAD,

BRASS SHELL, RE-LOADING CARTRIDGE,

Used by the Army and Navy of the United States and several Foreign Governments.

All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.

Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.

Sportsmen, Attention



Keep Your Feet Dry.

The only premium awarded by the Centennial Commission, Philadelphia, 1876, for Alligator Waterproof Boots and Shoes.

Goods sent to all parts of the U. S., C. O. D.

Catalogues containing full instructions for self-measurement sent free on application.

503 Broadway, New York.

NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

MADE OF BROWN VELVETEEN.

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$35; Vest, \$25. Also the best brown corduroy pants at \$10 per pair. make only the one grade, as the cheapest goods do not turn briars and will not give satisfaction.

Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is The Best Yet. Coat, \$150. For full suit, \$140. I also make the Sleeveless Coat; Vest with sleeves if desired. Rules for measurement and samples sent upon application.

F. L. SHELDON, Rahway, N. J.

For Sale by Dealers in GUNS and SPORTSMEN'S SUPPLIES.

Sportsmen's Goods.

Sportsmen's Emporium.

SHOOTING, FISHING AND CAMPING GOODS OF EVERY DESCRIPTION.

Send 10 cents for 50 page illustrated catalogue, with rules for glass ball shooting, hints on camping, shooting and fishing, etc.

TENTS, STOVES, JACK LAMPS, BLANKETS, RUBBER GOODS, ETC.

THE NEW TREBLE-BOLT FOX GUN

Split Bamboo Fly Rods; the best in the market.

Agent for the celebrated Mr. Bride Flies, Good's Moccasins, Thomson's Shooting Boots and Shoes, Leather and Canvas Suits of all kinds.

Holberton's Trout Flies, per dozen, \$1. Holberton's full-length Russian-Leather Fly Books.

OUTFITS for FLORIDA AND THE WEST.

Sportsmen's Diary and Notebook, with blank scores and useful receipts, etc., mailed on receipt of 50 cents.

PURDY'S GLASS BALL TRAPS, \$3.50. The best for wing practice.

Paine and Bogardus' glass balls; Kay's composition Balls. Repairing, altering and boring of guns done in the best manner.

English and American Wading Stockings and rubber goods for fishing and camping. Eaton's Run-Preventer. Dog Medicines for worms, fleas and mange.

W. HOLBERTON & CO.,

P. O. Box 5,109. 102 Nassau St., N. Y.

SPARKS'

Chilled Shot,

RIVALLING THE ENGLISH.

Price, 9 3-4 cents per pound.

MANUFACTURED BY

THOMAS W. SPARKS,

121 Walnut Street, PHILADELPHIA.

SUBJECT TO USUAL DISCOUNT.

Jan 17 1m

A PEERLESS OFFER.

IN ORDER TO BETTER INTRODUCE

KIMBALL'S

PEERLESS.

FINE CUT CHEWING TOBACCO, The manufacturers beg to announce that they will deliver, free of cost, to every dealer buying a Ten Pound Pall, one genuine

Blue Jacket SEVEN SHOOTER

With Safety Lock, Steel Barrel and Cylinder, Nickel Plated, guaranteed reliable and perfect in every respect, and usually retail at \$5.00 to \$5.00, which the dealer WILL PRESENT to the CUSTOMER BUYING the LARGEST Quantity of PEERLESS.

PEERLESS tobacco has been manufactured for more than thirty years, and has become a favorite wherever used. In quality it is unsurpassed, and a first-class article in every respect. Five First Prize Medals have been awarded, including the Centennial, and the only award at Vienna, 1873, to fine cut. The manufacturers challenge the production of a better article.

Parties desiring to avail themselves of this opportunity of procuring a good article of Tobacco, which alone is worth the money, and a first-class R-volver, nearly equal in value, should forward their order as soon as possible, as a limited number only will be given away. Price \$9.00 per pall.

W. M. S. KIMBALL & CO.,

Manufacts, Rochester, N. Y.

ASK YOUR DEALER FOR IT.

Jan 17 3m

BOATS! BOATS! BOATS!—The lightest and most durable boat in the world. Weight, 25 lbs. and upward, built of white cedar. H. M. SPRAGUE, Manufacturer, Parisville, St. Lawrence County, N. Y.

# FOREST AND STREAM

## ROD AND GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year.  
Ten Cents a Copy.

NEW YORK, THURSDAY, JANUARY 24, 1878.

Volume 9.—No. 25.  
No. 111 Fulton St., N. Y.

### CATASTROPHISM.

Selected.

TO PROFESSOR O. C. MARSH, BY A NON-UNIFORMITARIAN.

**B**REAK, break, break,  
At the cold gray stones, O. C. I  
And I would that my tongue could utter  
The thoughts that arise in me.

O, well for the five-toed horse  
That his bones are at rest in the clay,  
O, well for the ungulate brute  
That he roams o'er the prairie to-day!

Thy rocks bear their record of life,  
Evolved from Time's earliest dawn;  
But oh for the view of a vanished form,  
And the link that is missing and gone!

Break, break, break,  
At thy fossils and stones, O. C. I  
But the gentle charm of Uniform Law  
Can never quite satisfy me.

—San Francisco Bulletin.

For Forest and Stream and Rod and Gun.

## Voyaging on the Upper Missouri.

BY ERNEST INGERSOLL.

NO III.

EMBARKATION AT FORT BENTON—SKETCH OF THIS NAVIGATION  
—"SPARRING" A SAND-BAR—A SCRAMBLE FOR BREAKFAST—  
SCENERY AND INDIAN LEGENDS—THE PICTURESQUE DESOLA-  
TION OF THE BAD-LANDS.

**N**OW let the imaginative reader conceive us to have picked our way at sunrise down among the redoubts of freight on the bank of the river, walked the treacherous gang-plank and climbed to the hurricane deck of the Benton—a good and comfortable steamboat, stern-wheeled, 395 tons burthen, Capt. McGarry—and that we are headed down stream, with the historic town just out of sight around the bend, and the leadsmen calling lustily the decreasing depth as we approach the dreaded Shonkin bar. Moreover, let him fancy himself greatly entertained by something a certain person is instructing him upon, namely, steamboat navigation on the Missouri.

It was not until 1811 that the waves of the Mississippi were parted by a steamer's prow, but long after this novelty had ceased, the upper Missouri was shunned as utterly impracticable for steamboats, so that as late as 1830 we find the American Fur Company clinging to its keel-boats, and dragging its goods by human labor the long and toilsome distance from St. Louis to the mouth of the Yellowstone. But in that year it was determined to try a steamboat on the Upper Missouri. It was supposed that unusual strength and solidity were essential to encounter successfully the dense array of snags and bars, and in 1831 a new side-wheel boat named "Yellowstone" was specially built. This boat succeeded in reaching Fort Pierre the first season, and Fort Union the next, but was found to be of improper build, and was soon replaced by the "Assiniboine," which was far more successful. That she might produce a more startling impression upon the minds of the Indians, she was provided with an apparatus through which the steam could escape with a terrific and unearthly din, and at her bow was a large carved figure representing an Assiniboine warrior. One of her passengers on the first trip was Mr. Catlin, the painter and student of aboriginal life. The following winter this boat was frozen in above Fort Union, and the next season burned by accident. The American Fur Company subsequently owned a considerable number of steamboats, and every year saw one or more ascend to the mouth of the Yellowstone. Several attempts were made to push yet higher up the river, but with indifferent success, until in 1860 the light-draft steamboat Chippewa ascended quite to Fort Benton. To the Choteaus, father and son, is due the credit of this achievement.

Meanwhile we are dropping down the river, and Shonkin bar has been passed with small difficulty. This is August 17th, and the last boat of the season, hence we have grounds for fear of getting aground. The Missouri depends wholly on the melting of snow. Its highest stage is therefore in June, when the summer has begun seriously to be felt in the mountains and tablelands. After this, as less and less snow is left to be melted, the flood decreases, and in September and

October the river is very low. The latest departure from Fort Benton on record is August 27th, and we esteem ourselves fortunate in getting a boat at this date.

When a boat fails to pass a bar after proper trials—finds herself well aground—she resorts to "sparring." At each side of the extreme prow, on the lowest deck, and therefore almost at the surface of the water, stand two stout masts about 40 feet high, inclining slightly forward and firmly stayed. To each of these is suspended, by strong tackle at the top, a spar of equal length and heaviness with the mast, so arranged that its lower end, which is shod with an iron spike, can be dropped into the water on either side of the bow. Now when a sand-bar is under the keel, and refuses to yield, the spars are dropped and the iron point sinks firmly into the sand. Then the tackle is put upon the captain, the donkey-engine puffs and pants as though it was doing it all by a personal exertion of human strength, the tackle winds up in a vain attempt to force the spars down into the sand, which of course results in lifting the steamboat up and dragging it forward to the extent of the length of the spars, which now lie prone alongside ready to be readjusted and pulled against the second time if necessary. It is just as though you had put your hands on a fence and leaped through them.

From the contemplation of this feat in navigation we returned to breakfast at the ringing of the bell. Entering the cabin I found it occupied by a long table for passengers, and a small table for the officers. The ladies on board—of whom there were a score or more, mainly wives of Montana merchants going East to spend the winter—had been seated before the bell was rung, else they would have had small chance I fear; for the seats were not half as many as the passengers, and there was a grand scramble for the first table. I could enjoy it since, though the courtesy of Mr. Barr, clerk of the boat, I had been given a permanent chair at the officers' table. The breakfast was a good one—far better than ordinary Montana hotel fare in point of both material and cooking, and after a day or two the scramble ceased by an amicable arrangement, so that the three substantial meals were thoroughly enjoyable every day. The Missouri flows through a hungry latitude. Men must eat, and are quick to discharge the duty.

While we ate this first breakfast the deck-hands took on a lot of silver bullion which had been brought down from Fort Benton in wagons, since it was too heavy to trust to the boat to carry over Shonkin bar, and the great red "schooners of the plains" were bivouacked on the bank, beside each one a little fire, where groups of teamsters in picturesque roughness of attire sat eating their breakfasts. On the way up the boat left a quantity of heavy freight here, and this the wagons will carry up to the fort this afternoon.

The bluffs here are about a mile apart and perhaps 200 feet high. They are of clay, light colored, black at the base and much gullied by water. Between these the river winds about, the bends being taken up by grass or willow clothed flats, with occasional islands densely overgrown by willows and large cottonwood trees (*Populus*), looking very green in contrast to the universal gray, yellow and brown. Twenty-five miles below Fort Benton a widening of the bottoms, broad islands of sand, and a long line of trees under the abrupt northern shore, indicated the delta of the Marias, a large tributary from the Northwest. On these bluffs a trading-post was built as early as 1831, by James Kipp, an American Fur Company's agent, whose name is perpetuated in some rapids below, and whose son led the famous Baker Massacre against the Piegiens. The river is a limpid stream, flowing over a pebbly bed, the bottoms being lined with a heavy growth of trees and bushes. A little way up this stream occurred a most sanguinary conflict between Gros Ventre and Crow Indians in 1849. Twenty-two Crows were conceded in a hollow for the purpose of stealing horses from the Gros Ventres' camp, consisting of two hundred lodges. Being discovered, the Gros Ventres surrounded them and threw up dust in the air, which was carried by a strong wind in the faces of the Crows, blinding them, when the Gros Ventres rushed upon them and killed the whole number without losing a man. Among the Crows was a Gros Ventre who had been taken prisoner in early life. He begged for his life, told who he was, but against him, very properly, they executed their wrath, telling him he had no business to come on such an errand against his own people. The Crows fought bravely; one of their number, with knife in hand, jumped down a hill some

sixty feet, but was despatched before he could do any injury. None were left to carry home the news.

This point passed, the right bank of the river continued high, the bluffs throwing strong shadows; but the left (northern) shore became sloping and grassy, permitting glimpses out upon the plains, which were devoid of much interest except when groups of antelopes would raise their pretty lyre-crowned heads to gaze at us from the top of some ridge, or scamper nimbly away as we came round a bend. The sun was very hot, and the passengers soon abandoned the deck to arrange their diminutive staterooms, sleep, read or attend to some of the seventeen babies that formed our musical corps, making the boat resemble at times an Indian village lamenting the death of its chief.

Toward noon Bear's Paw came in sight off to the north, between us and Milk River, a range of sharp pointed granite hills, with pine forests on top that look like tossing waves. The road from Minnesota to Oregon passes along their further slopes, where the aspect of the range is said to be stern and wild. The home of the Gros Ventres, once a very powerful nation, but now decimated through continual warring, Bear's Paw has been the scene of much Indian fighting; and even as I write comes the news of the Nez Percé Chief Joseph's defeat at the hands of General Miles in this very spot. Very lately gold has been found there, and emigration must soon possess itself of the woods and valleys. Beyond are the Sweet Grass Hills, with their fragrant herbage, the resort of the Blackfeet, who aver that Providence created these hills especially for this tribe to use as lookouts for buffalo.

Where the river passes through these hills the poor quality of coal underlying all this vicinity crops out in the bluff and has been mined to a small extent. Some day it will no doubt prove highly valuable for the use of steamboats. On a prairie bottom just below you notice a little ruined stockade overgrown with weeds and bushes. A year ago a "whisky trader" was killed there in a quarrel with a young Gros Ventre about a squaw. Such events are the prime cause of many an Indian war. The whisky traders are the curse of the Northwest—they are unlicensed peddlers of literal *fire-water*, who sneak about eluding the revenue officers and frontier troops as long as they are able. The almost invariable result of their illicit trade is violent death at the hands of some drunken savage.

The next sign of humanity was presented by Eagle Creek City, which consisted of two small log-houses, joined together by a continuous roof. We landed the citizens, to wit one man, who will stay here all winter cutting wood for the steamers; a dog, a cow, a wall-eyed horse and some provisions. It was near here that a well-known old trapper, Louis V. Mercure, drowned himself in a moment of dejection, and his lone grave is marked by four mossy posts. This is sixty-five miles from Fort Benton, and we have fairly entered the Bad Lands, by far the most picturesque portion of the whole river scenery.

In place of the yellowish and bluish cliffs, whose square fronts and crowning slopes of sere-grass had already grown monotonous, there now appeared on the northern bank a continuous array of lofty bluffs deeply eroded, and devoid of vegetation; while on the southern bank such bluffs were interspersed by open spots and grassy knolls. The earth of these steep and rugged bank was nearly as white as lime, except where protrusions of igneous rock made a black and desolate blot upon the already cheerless landscape. The bluffs rose to a height of several hundreds of feet by successive ledges, and here and there some tower of lava, tougher than the sandstone through which it had been thrust, would stand as a ruined monument of the decay of the general level. But even the lava dikes, being porous and seamed by lines of cleavage, crumble under the strokes of Time and Weather, but crumble unequally, leaving unexpected and fantastic images—freaks of those merry carvers, Frost and Water—to stir the fancy of the beholder. At one point the river flows between two high promontories of lava that stand opposite like gate posts, rising a hundred feet perpendicularly from the water's edge. Such ruined dikes strike across the hills in every direction, standing from 10 to 100 feet above the surface, and dividing the region into great irregular fields as though with stone fences laid by Cyclopean laborers. Here and there these workmen of Vulcan have erected the dwellings, fortifications and public edifices of their ancient town. You

even fancy you can see them, turned to stone as they toiled—men with cows on like gnomes, women wearing broad-brimmed hats resembling mushrooms. On that white, dome-shaped hill stands their citadel, with rude battlements, bastions and donjon—lower there is their cathedral, where those two lofty splinters of basalt stand side-by-side, their front faces vertical, in the rear resting upon a buttress not unlike the body of a church; the round perforation in yonder black pinnacle was their clock, and through its open face you may see the sun rise. All has the semblance of massive masonry, the volcanic rock being checked by rectangular lines of cleavage into ponderous blocks that are piled to dizzy heights.

And everywhere between the lava-dikes are the curiously eroded white buttes as far back as the eye reaches. Almost every imaginable architectural form and animal shape is represented, and for fifty miles this curious spectacle continues with endless variation. In one place was a perfectly square house with mansard roof and dormer windows, all of gigantic proportions.

The strata are horizontal, and through the easily disintegrated white sandstone, run thin discolored layers of more compact quality, which, succumbing to atmospheric influences less rapidly than the main mass, are left protruding to stud the honey-combed face of the bluff with shelves and brackets, or to lie like a long iron beam on marble columns, between which you might ride your horse; or are poised on wasp-waisted pillars to serve as round tables for the Bad Land gods. Thousands of such capped columns and little tables, like big toad-stools, were disposed along the sides of the hills; while in the *coulees*, or ravines, colonnades and detached pedestals of partially cemented sand, capped by huge globes of light-brownish color, as perfectly round as though turned upon a lathe, towered up to the height of a hundred feet or more. "One of the things we brag about," a pilot said to me, "is the *Citadelle Rock*." It is a vertical shaft of lava striking two hundred feet toward heaven upon a base forty feet square. Another is Steamboat Rock, which, from a certain point, has a striking resemblance to the outlines of a side-wheeler. Some of the hills were terraced into tiers of carefully shaped domes, capped by a single huge dome, surmounted, perhaps, by a miniature dead volcano, whose hard basaltic bit of a crater preserves the apex from wasting away. Sometimes these curious forms were isolated, a whole hill having been worn down to a single grotesque monument; elsewhere they would be clustered thick over the surface of some eminence, showing that there the water had been backward in its sculpture. It was as entertaining to try to make out the varying similitudes of the shapes the water-worn rocks had assumed to objects of art or living things, as they flitted by us, as to study the moving forms of the clouds on a summer afternoon. Near Pablos Rapids (Pablos was a wicked old French voyageur who made a business of stealing horses from the northern Indians, or anywhere else, and crossing them here) the edge of the crag ahead showed the mighty profile of an ancient Egyptian, just such a face as adorns the catacombs at Thebes. As we drifted nearer, this venerable personage slowly changed into the visage of a New York plug-ugly, with low forehead, bulging eye, undershot jaw and a mole on his nose. This faded out as we progressed, and there came to view the high forehead, sharp nose, sunken lips and double chin of an aged man full of solemnity. It was the foot of a mountain of leather-brown lava, rising 1,500 feet above the river, with ragged, desolate, crimson cliffs and slopes of loose debris. Creeping around it, the Benton ran her nose against the next white cliff—so deep was the water at the base—and allowed the current to swing her into the proper channel before she beaked a little away, and then went on to where the white hills shut in the blue water at the next bend. After this came mountains of lava, fragments of fire-stained rock, with gloomy canyons between square buttes of black basalt. Owing to the yielding nature of the friable sandstones and soft marls composing these buttes, their sides are easily excavated, and the soil washed down into the hollows holds the water in a most tenacious mud, which crusts over as though firm. These treacherous quagmires make traveling through the Bad Lands almost impossible for animals, and occasioned the name *Mauvaises terres*, given by the early explorers.

For Forest and Stream and Rod and Gun.  
SPORT IN MINNESOTA.

DUCKS, GEESE, JACKSNPE AND A RUSSIAN "BIRD-DOG."

FOR sportsmen visiting Minnesota in search of health, recreation or amusement, no part of the State offers better opportunities than the region traversed by the "Main Line of the First Division of the St. Paul and Pacific Railroad, with its extension in the Valley of the Red River of the North."

Leaving St. Paul and Minneapolis, this road runs in a north-westerly direction for 216 miles to Breckenridge at the confluence of the Red River and the Bois de Sioux, and thence nearly due north, parallel with the first mentioned water-course, for 120 miles more through the beautiful and fertile Red River valley, and will, doubtless, before the end of next year, be completed to the boundaries of Uncle Sam's possessions on the confines of Manitoba, connecting there with the railroad system of the British Dominion. This is in every respect a first-class road, running Pullman's sleeping and palace cars. The officers are courteous and attentive, and what to a sportsman is of great importance—the baggage-masters will take very good care of their dogs at trifling charges.

For the first seventy miles the road passes through a dense forest of hardwood, the "Grand Bois" of the French fur traders in ante-territorial times. Deer are here quite plenty, and ruffed grouse very abundant, and in the numerous lakes good pickerel, pike and black bass fishing is found. If you are a follower of good old Izak Walton make your first stop at Wayzata, where the beautiful Lake Minnetonka, one of the finest in Minnesota, offers you unusual opportunities, and where the hotel accommodations are very good. Farther on through the woods a sportsman may find suitable quarters at almost any station, but Howard Lake, Kokato and Dassel are recommended.

At Darwin you get the first glimpse of the great North-western prairie. Groves scattered here and there between grain fields, lakes and stretches of native prairie, are at first

numerous; but, as you proceed westward, they gradually diminish in numbers and extent, until after passing Hermann, not a tree is in sight for forty miles.

In this beautiful country between Darwin and Hermann, the pinnated grouse (*Caprimulgus cupido*) is found everywhere quite plenty, and in certain places there is excellent duck and geese shooting, notably in the neighborhood of Litchfield, Atwater (at the Kandigohi lakes), Willmar, Morris and Hermann. In all the places comfortable accommodations may be had at reasonable prices, and also teams to carry the sportsmen to the hunting grounds. At Hermann you bid good-bye to lake and grove and enter a sea of waving grass, the famous valley of the Red River of the North, destined in a future time—and not a far distant either—to be the great granary of America. On a single farm in this valley, where two years ago not a plow had touched the ground, was raised during the past year 185,000 bushels of wheat of the very best quality, and there are several other places already under cultivation, the extent of which would astonish an Eastern agriculturist.

Sojourning in this valley, the observant sportsman can hardly fail to notice some new features as well in the flora as the fauna of this region when compared with that of the more eastern part of Minnesota. Instead of the usual varieties of prairie grass you find the bunch or buffalo grass of the plains. The common deer has nearly disappeared and is supplanted by the elk, and farther north by the moose. The pinnated grouse is now scarce, but its sharp-tailed congener (*Pedioetes phasianellus*) becomes more and more numerous; and to those of my brother sportsmen who would wish to find this—the finest game bird of the grouse family—in multitudes in the Red River valley, I would say, come out next season and have for once a day of good sport. Do not delay until it is too late, for the Red River valley in its whole length and breadth will soon be transformed into a waving wheat field, and the *Phasianellus* like Leather stocking of old, does not love settlements, and will soon retire to the wild prairies and oak openings, where he is undisturbed by the presence of man. Among other changes in the animal kingdom may be mentioned that our well known little cotton-tail (*Lepus sylvaticus*) is seen here no more, and its place is occupied by its larger cousin, the jack-rabbit (*L. campestris*); the common Western brant (*Anser albifrons*), is supplanted by that most beautiful of the Anserine, the snow goose (*A. hyperboreus*), which here may be seen in flocks by the hundred, and the smaller curlew (*Numerius hudsonicus*), so common along the eastern part of the road, gives room to the sickle-bill (*Nym. longirostris*). Doubtless there are many other changes, but the above have come within my own observation.

After leaving Hermann there is as yet, on a stretch of 150 miles, only three stopping places with fair hotel accommodations—Breckenridge, where there are good geese, duck, grouse and woodcock shooting; Glyndon, where this road intersects with the Northern Pacific, and Crookstown, near the present terminus. Around the two latter places the sharp-tailed grouse is found in great abundance, but, according to the game law at present in force, this fine game-bird, with the pinnated grouse, is in season only from August 15 to October 1.

Stopping for a few days in the beginning of October this year at Morris, a thriving young town on this line of railroad, I was invited by my friend, John Galvin, roadmaster on that part of the road, to join him and a few other friends in a day's goose and duck shooting at Hermann. Our party included Hon. J. McCarthy, of the St. Paul City Council; Messrs. Michael Galvin, K. Morris and the writer. By the westward bound train we arrived at Hermann after dark and were most kindly and hospitably entertained by Mr. Galvin and his amiable family, in whose company we spent a very pleasant evening. Before daybreak the next morning we were on our way to the hunting field, some three miles distant. For conveyance we used a hand-car which brought us in a short time to our destination, a stubble-field, where geese and brant were known to congregate for feeding. By the thoughtfulness of our host several pits, each large and deep enough to hold a man, had been dug here the previous day, and after putting out our decoys, we lost no time to occupy our hiding-places. The weather was mild, the sky cloudy, and hardly a breath of air stirring. At the break of day the birds commenced coming in. McCarthy had the first shot and brought down a fine Canada goose. Morris came next and got two brant in one shot; but after this—and it was now broad daylight—the birds flew very high, and, although the fusillade was quite lively, very few birds were bagged. After about two hours' stay in the pits we considered the morning hunt finished, and returned to the railroad and our hand-car, bringing with us five geese and two brant.

We were soon back to Hermann and to our friend's house, where an excellent breakfast was in waiting; and to this, with the true appetite of hunters, we did so ample justice that it was nearly 11 o'clock before we were ready for the day's duck-shooting. In the meantime our party had been increased by two young gentlemen from Morris, Messrs. Fisher and Brisbane, who now joined us in the intended expedition.

We started in two wagons for a group of lakes about three or four miles from the village. These lakes are all connected by a sluggish creek, and at the several inlets and outlets are excellent duck-passes. The place assigned to me by our captain was at one of these outlets of the creek into a large lake. On account of long-continued drought the water in the creek was low, and the banks covered with soft mud. Behind was a border of high bullrushes. In the edge of these I found an old boat, in which I and my Irish setter "Rover" made our headquarters. The place was a good one. I had a comfortable seat in the stern of the boat, and my dog a dry place at my feet, and we were both pretty well hid by the surrounding high weeds. Here we were now ready for the fray. Soon a teal-duck came along the pass at a rate a good deal faster than 2:40. I aimed fully two feet ahead, and down it came on the other side of the creek. This was a good beginning. Rover saw it fall, received his order to "fetch," swam the creek, brought it back handsomely, and resumed his seat in the boat. This was repeated several times. Some ducks I missed, others I bagged. All were of the same species—the blue-winged teal. Not another kind did I see.

I had been in this place quite a long while, probably a couple of hours, when Rover's nostrils commenced working. He rose to his feet, his tail stiffened, and he came to a most decided point where he stood in the boat. I was quite puzzled, but soon the explanation appeared. A jack-snipe, a genuine *Gallinago Wilsoni*, came out of a small patch of tussocks to my left, and was followed by others until there were four of them. They went on feeding on the mud-flat close by the boat, and within six feet from me and the dog. "Down!" which was obeyed, his head remaining on the edge of the boat, and his glaring eyes following the birds' every movement with marked interest. It was a pretty sight. The little

fellows must have seen me, but did not seem to care, and went on with their business quite unconcernedly. They put their bills about half their length down in the soft mud, then raised them up and tried another place; then they ran the bills down until the mud reached their eyes, and brought up a worm or a grub, which they gobbled with great dexterity. Sometimes, when one of them had caught some big worm, which was not at once swallowed, the others would try to take it away, followed in pursuit by the whole party, just as you can see the chickens behave any day in the barnyard. This continued for quite a while. I remained perfectly still, very much interested and amused, while more than one duck, unobserved or disregarded, sailed over my head within reach of my gun. The fun I had looking at the performance on the mud-flat was more to me than shooting teal. At last, like a flash, they suddenly disappeared among the weeds. A shadow was reflected on the water. I looked up and beheld a hawk suspended in the air just above my little neighbor's feeding-ground. To get my gun to the shoulder and pull the trigger was the work of an instant, and I sent Mr. Hawk heels over head down in the creek. I was in a humor to defend those four snipe against all the hawks in Minnesota. But they did not show themselves a second time, and after a while I again commenced to pay attention to the ducks, and brought down a few more.

During all the time I had been sitting in the boat I had heard my friends diligently at work farther down the lakes, and, judging from the number of discharges of the guns, I supposed we must have a wagon-load of birds. It was rather late in the afternoon, and remembering a big lunch basket in one of the wagons, the contents of which I thought it time to examine, I left my place and joined my companions, whom I found scattered about on a stretch of more than a mile. They reported varied success, and complained that the birds had been flying rather high and "very fast." We had now luncheon and counted our game. There were eighty-two ducks of several varieties—mallards, French teal, broad-bills, widgeons, etc., of which my contribution was ten, all teal, to get which I had emptied twenty-one shells. We now wended our way back to Hermann and Mr. Galvin's hospitable house, where we arrived after sunset.

\* A RUSSIAN BIRD-DOG.

By the morning train, the day following, we returned to Morris. On board the train we met two of the crack shots of St. Paul, Messrs. Keogh and Bruno Beaupre. These gentlemen had spent two or three days at Hermann, and brought with them fourteen geese and brant and about 100 ducks, which, added to our new supply of birds, made the luggage-car look quite gamey.

There was also on the train another sportsman, a Mr. Sapier, who had been shooting farther up the road, at Breckenridge. Mr. Sapier had with him six hunting dogs, and among their number—lo! and behold!—there was a Russian setter. No mistake about it; it was the genuine article. At the first glance his very face brought memories back from other scenes and times long gone by. Mr. Sapier, to whom I sought an introduction, is by birth a Frenchman. He was a stranger in these parts, but seemed a gentleman of cultivation and intelligence, and was on his way South to continue his hunting expedition. In the course of conversation he informed me that he got the dog in question from a Mr. Keith (of the firm Keith & Milligan, of Chicago), that the dog had won a prize at the late teal show in said city, and that some parties in the State of Indiana, well known to Mr. Keith, kept a whole kennel of this breed of dogs, which properly ought to be called, not setters, but Russian bird-dogs, under which name, Mr. Sapier asserted, they were mentioned by several authorities, and by which title the dog now belonging to Mr. S. had won his prize in Chicago. Here, then, is a key to the solution of the question, so warmly discussed in the columns of the FOREST AND STREAM AND ROD AND GUN, whether any such breed of dogs as Russian setters (bird-dogs) is in existence. "All of which is respectfully submitted."

J. S.

For Forest and Stream and Rod and Gun.

TROUT IN THE ROCKY MOUNTAINS.

DENVER, Colorado, Jan. 5, 1875.

EDITOR FOREST AND STREAM: The eastern two-fifths of Colorado is plains or prairies. The western three-fifths is mountainous. In most of this larger portion the mountains are very rugged and lofty, but there are wide areas of plain, park and valley. Most of the mountain slopes, from 6,000 to 11,000 feet above the level of the sea, are covered with forests of evergreen timber. In the mountain portion of the State, five great rivers take their rise. The North and South Platte flow out to the north and east, uniting midway of the great plain, and joining the Missouri near Omaha. The Rio Grande del Norte speeds away to the south, traverses the territory of the United States for more than a thousand miles, then forms the boundary between the two republics nearly as much further, and falls into the Gulf of Mexico beneath tropical skies. The Gunnison and Grand plunge down to the west, where, with the Green, they form the great Colorado of the West, which enters the Pacific through the Gulf of California.

These five large rivers are made up from innumerable tributaries, great and small. Scores of them are so large as to be formidable in the season of floods. They in turn are formed by smaller tributaries, down to the tiniest brooklets, but nearly all find their beginning in the snow-banks and ice-fields that forever flock the sides and cover the elevated plateau of the high mountains. Such water as they carry is the chosen home of the brook trout, or, as they are more commonly called here, mountain trout. The first settlers of the country, who came hither eighteen or twenty years ago, found almost every stream swarming with these delicious fish, and the same streams contain them yet, but in many of those nearest to populous settlements they have been almost decimated. Farther away they are more plentiful, and in the distant wilderness there is plenty of water over which a fly has never yet been cast. There are some streams that contain no fish, owing generally to their being cut off by inaccessible waterfalls. Generally every lake, river, creek or brook in which a trout can swim has its finny denizens at some season of the year.

The Rocky Mountain trout differs from the brook trout of the Eastern States in color and markings. The spots are black, though in certain streams reddish spots are interspersed, and some are beautifully marked with carmine stripes and shading-away tints along the sides. There are, in all, five varieties—possibly more if nice distinctions are considered—differing in color, tint and quality of flesh, form, life and habit. They are said to be less gamey than the trout of the Northeastern States. I cannot speak knowingly upon that

point, as I never caught a trout east of the Rocky Mountain waters. I know that many of them are exceedingly lively, and will make a most gallant fight in summer, autumn, and into the winter, even when air and water are freezing cold.

The season does not begin until in July, after the great bulk of snow has melted and the rush of water is over. There are some streams that can be fished in May and June, but the above applies to all that are really worth visiting. The sport improves through August and September. After that it is uncertain. One day it may be excellent, and then for a number of days hardly a fish can be taken. In July they are in the small streams, but begin leaving them by the middle of the month, gradually working down until they reach the rivers before much ice forms. In former years great numbers were caught in the winter from some of the large streams, by cutting through the ice and fishing with bait, which they will then take ravenously. But protective laws and an improved public sentiment have almost put a stop to that kind of wanton butchery. There are many lakes scattered through the mountains that are plentifully stocked, and they are favorite winter quarters for the speckled beauties. Fishing in them is generally less lively sport than in the streams. The fish are less gamey as a rule. But they are favorite resorts for camping parties containing ladies or invalids, who are thereby enabled to fish from boats. In some of these lakes unusually large trout can be taken at certain times, the season for them often lasting but a few days. But then there is magnificent sport. Of such I may speak particularly hereafter.

In the early settlement of the country, fifteen or eighteen years ago, all the sport desired could be found within from fifteen to forty miles of Denver. My favorite stream was Bear Creek, which comes out of the mountains sixteen miles west of Denver, and joins the Platte six miles south of town. At the mouth of its canyon there were delightful camping-places in box-cedar groves. There were no settlements near, and the sport was excellent any distance up the gorge, and for a mile or two out into the plain. The largest trout I ever caught there was eighteen and a half inches in length. A railway station now covers the ground where I landed him; a large summer hotel crowns the hill above, and a noisy village clusters around. They say there is fair fishing yet up the stream from ten to twenty miles, but the trout I have seen from there in recent years were small. I know too many better places to waste time catching minnows in Bear Creek. Ten miles south of Bear Creek the Platte leaves the mountains. Its canyon was inaccessible until recently, since which time fine sport has been reported. Further in the mountains it divides into a great number of streams, and in nearly all of them trout are abundant. A railway is now building through the canyon, and up along the river into South Park. Eight miles north of Bear Creek, Vasquez Fork leaves the mountains. Its north fork is so lined with quartz mills, which discharge their tailings into the stream, that the water is thick as slime. Of course trout no longer live there. In the south fork, well up toward its head and near the snowy range, there are yet a few fish. Eastern tourists with nothing to do, and invalid sojourners, think they find tolerable sport from Idaho up to Empire and Georgetown, and sometimes further up, but nobody else agrees with them in that opinion. Twenty miles north of Vasquez the Boulders come out—two of them where they enter the plains, but three a few miles in the mountains. All are yet fairly stocked, though nothing to what they were ten years ago. Twelve miles further north is the St. Vrain. Its upper waters are yet in the solitude of the unbroken wilderness, and there some splendid sport can be enjoyed. The greatest disadvantage is in the fact that nearly all its streams flow through dense forests, making them difficult of access and rough to fish. Sixteen miles north of the St. Vrain is Big Thompson, with better fishing-ground. From twenty to thirty miles in the mountains its course is through Estes Park, a meadow valley, in which the stream divides into numerous branches, all well stocked with trout. Here the Earl of Duanraven has bought a great tract of land, stocked it with cattle, built a hotel, and is creating a vast estate on the English plan. In earlier years this park, which lies close up under the shadow of Lang's Peak, was a great winter resort for elk. Herds of five hundred or more were not uncommon.

Sixteen miles north of the Thompson is Cache-la-Poudre River—the trout stream par excellence east of the snowy range in northern Colorado. It has nearly a hundred miles of fishing water, with much open valley easy of access, and many of our best sportsmen still go there, summer after summer, for a camping tour. Trout are still very abundant, and many of them are large. Toward the head of this river there are plenty of elk, deer, mountain sheep, bear, and a great variety of smaller game—animals and birds.

All these streams are parallel, flowing from west to east, and forming the South Platte River. All are accessible by rail close up to the foot of the mountains, from which a day's drive will carry the sportsman to the best of the fishing-grounds. The altitude ranges from five to ten thousand feet above the sea; oppressive heat is unknown; the nights are always too cool for insects, and there are very few to annoy at any time. Those few are horseticks that are sometimes troublesome in the first half or twenty days of July and then disappear, and mosquitoes that annoy for a few hours in some days, but sunset sends the last of them to roost. B.

## Fish Culture.

STOCKING STATE WATERS WITH FISH.—*Editor Forest and Stream:* I desire to state through your columns that the New York State Fish Commissioners are now ready to receive orders from parties desiring to stock any of the public waters in New York State suitable for brook trout or salmon trout. They will be delivered to any part of the State by the parties paying the traveling expenses of a messenger to deliver them and giving the names and localities of the lakes or streams they wish to stock. All orders must be sent to the undersigned before February 20.

Rochester, Jan. 17, 1878. SETH GREEN.

FISH FRY FROM MICHIGAN.—The Fish Commission of Michigan request the publication of the following notice:

"The Fish Commission expect to be able to furnish for the inland waters of the State during the winter and spring the fry of whitefish, lake trout, and to a limited extent California salmon, brook trout, and possibly eels and grayling. Parties who desire to stock water, and who will become personally responsible for the plant, should address the Superintendent, George H. Jerome, Niles, Michigan, and particularly give the name of lake or stream, size and depth of water, and county

and township where located; and further, plainly write their name, post-office address and railroad station at which they will receive the fry. Persons complying with the above requirements will be seasonably notified by the Superintendent of the day and the train when the cans of fry will reach the station, and they must be on hand, without fail, to receive them when the train arrives."

THE MINNESOTA STATE HATCHERY.—*St. Paul, Jan. 8.*—The Willowbrook hatchery is all right, and salmon eggs placed upon our hatching troughs, numbering over 200,000, about 150,000 are turned loose in our ponds and are doing well. The grounds, general surroundings, and the buildings are, I think, a credit to us. We expect to introduce a number of different kinds of fish in the spring. W. M. GOLCHIER.

SALMON BREEDING IN NORTH CAROLINA.—I am pleased to inform you that according to reports given me by Mr. Wm. F. Page, the Superintendent of the North Carolina Hatchery, the success at Swanamoo Gap was even greater than hoped for. Two hundred and thirty-three thousand of the young California salmon were turned loose recently in the various streams of the State, as follows: Catawba, 50,000; Pigeon, 10,000; French Broad, 50,000; Linville, 12,000; Yadkin, 60,000; Broad, 25,000; and Cape Fear, 20,000. It would appear, therefore, that over ninety per cent. of the eggs packed at the Government hatchery on McCloud River, in California, and shipped to North Carolina, were developed.

WAGNER.

CALIFORNIA FISHERIES.—The Senate Committee on Fisheries and Game have lately been in consultation with Messrs. Throckmorton and Redding, the California Fish Commissioners. Messrs. Brown, Rogers and Logarda, representing the fishermen on the Sacramento River, were in attendance. The Commissioners asked that the law in regard to salmon fishing, as it now stands, should not be amended. Mr. Brown thought that the season was too long, and that one month of close season was plenty. That the fishermen were in debt because they could not fish long enough. He wanted to know why the fish were allowed to go down the river where the sea lions eat them? In evidence taken before the committee, the fact was disclosed that the Chinese fishermen never waste any fish. Big or little are all the same. Small fish, no larger than a lead pencil, are dried and sent to China. Where white men cannot find a living as fishermen, Chinese take their places. Of course, in any argument of this character, poor John Chinaman comes in for all the blame. The fact seems quite clear to us that the Mongolian does not do much more harm to the rivers than the Caucasian. We must side entirely with the Commissioners, and believe if the rules and regulations, as provided by them for the fishing of the California rivers, are changed in the least, that all their labors will be wasted. It resolves itself to this: "Catch all you can to-day, and whistle after the fish to-morrow." What with native fishermen, backed up by Italians, who take what the Americans leave, and Chinamen who fish with nets that knitting needles will hardly pass through, after a while there will be very few salmon in the California rivers.

CARP CULTURE.—In the *Petaluma* (Cal.) *Argus*, of a recent date, Mr. Levi Davis, the carp culturist of Forestville, Cal., gives the following estimate of the increase of these fish:

"A mathematical calculation on the subject might be of interest to those who contemplate this business. With these conclusions I submit the following, which is, in reality, a 'fish story,' and will probably be considered as such in the eyes of exaggeration. In 1876, five carp (three females), two years old, raised 2,040 young, being an average of 680 to each female fish. This, however, is a very small estimate, and this year the same fish will exceed the number several fold. Taking this average, which will be a small one, after deaths, etc., are allowed, and trace the results for seven years, allowing one-half the young females, and allowing the young two years before spawning, and our results are almost beyond the limits of reason:

For instance, in 1866 the increase from three females was 2,040. In 1877 the increase the same. In 1878, 1,020 females increase 695,640, and so on; and the result of the seventh reaches the enormous sum of \$1,698,234,240. The total of the seven years will be 82,643,177,480 or thereabouts. Average these at one pound each and we will have 41,324,088.4 tons. Beyond this time the increase is so rapid as to seem too far beyond reason. And while these figures seem so far from possibility, those who are more familiar with the subject know that the spawning of a single fish, of some kinds, has been known to outnumber this total by far. These all go to show what can be done, and in consideration that carp, instead of consuming their young, care for them, show that the figures are not so far out of the way, and what could be done with proper facilities and care."

FISH CULTURE IN COLORADO.—We are much indebted to our special correspondent and agent, B. B. Porter, Esq., formerly of the Crystal Spring Trout Farm, in Bergen County, N. J., for the following report of the Fish Commissioner of Colorado for 1877:

STATE OF COLORADO,  
OFFICE OF THE FISH COMMISSIONER,  
BROOKVALE, NOV. 28, 1877.

To His Excellency John L. Routt, Governor of the State of Colorado:

SIR: In compliance with the law I herewith submit the following report for your consideration:

I am in correspondence with parties in the Eastern States in regard to the food fishes deemed most suitable to the waters of this State, and hope to do with the very limited amount of funds placed at my disposal all that can be done the coming year by way of their introduction into the lakes and streams of Colorado.

I have adopted measures to have proper fish ways erected wherever I had a knowledge of the existence of artificial obstructions in the streams. I have also caused to be prosecuted and fined several parties for a refusal to comply with the law, and hope to have many obstructions removed from the streams by the coming summer, thereby giving to the fish free passage to the upper waters of the different streams.

Respectfully, WILSON E. SISTY, Fish Commissioner.

Commissioner Sisty's report will do very well for a beginning. It is business-like and concise. When he has any results to promulgate he will doubtless make them known at the proper time. As the report now stands it is the shortest on record. Mr. Porter, in a letter dated at Ogden, Utah, Jan. 12, says:

Mr. Sisty informed me that the brook trout of Colorado spawn every month in the year, but that the males were only ripe during the summer months. Mr. N. A. Baker, a practical fish culturist, who, by the way, has some very fine fish ponds near Denver, well stocked with the speckled beauties, says that he has taken spawn and hatched them in the months of May, June, and July, and is sure that that is the true spawning season for Colorado. Other parties who were well acquainted with the mountains and fish that are found in the different streams say that the trout spawn in the months of July, August, and September. Some one should make a thorough investigation to learn the proper time for the close season. From what I could learn the habits of trout are entirely different here from the same species in the Eastern and Northern States. Colorado must be a sort of sportsman's paradise at the proper season. Good guides can be had for \$2.50 per day. Should any parties wish to make a pleasure trip to Colorado for sport or scientific research they should try and secure the services of S. W. Vance, of Denver, who is a practical taxidermist, and is capable of any scientific developments they may wish to make, as well as a first-class guide, being thoroughly acquainted with this part of the country. A letter would reach him through the care of J. P. Lower, Denver, Col. I was informed that Mr. E. Coster, Breckinridge, Summit Co., Col., has the finest collection of birds west of the Missouri River.

Yours truly,

B. B. PORTER.

## CAN EELS BE BRED IN OHIO?

JEFFERSON, O., Jan. 13, 1878.

EDITOR FOREST AND STREAM:

Feeling anxious to add to our sport, as well as our larder, we are debating the question of stocking the tributaries of Lake Erie with eels. Within the last forty-five years there only two eels have been caught west of Virginia Falls—one at Erie, Pa., and the other at Cleveland, O., and speculation was rife as to how they got there, all finally concluding they came via the Canal. Grand River would be a perfect paradise for eels if we could procure them, and persuade them to stay with us. There are two mill ponds that run back for miles. The water clear generally is deep at one point—said to be sixty feet. To give you an idea of the water, it is only necessary to name our native fish—catfish, bullheads, muscalonge, pike, pickerel, black and rock bass, mullet and suckers, and several other kinds of lesser importance. It is argued here that the common eel is strictly a salt water fish, only visiting fresh water for breeding, and surely returns in the fall. If that is so we are on the wrong side of Niagara Falls to succeed in eel culture. The sole object of the communication is to get light upon this subject.

SEPTUAGENARIAN.

We are only too glad to give our correspondent what light we can on the eel topic. In the year 1875 the Fish Commissioners placed some 36,000 young eels in Buffalo Creek, which stream empties into Lake Erie, above the falls of Niagara. No positive result can yet be deduced from the experiment. Eels are very difficult of transportation, dying in a few hours unless the water is changed. When eels are young and have to be carried any distance an assistant should accompany them. Eels may be procured in myriads in all the streams around New York, and almost anywhere near salt water. Until lately it was supposed that eels bred in salt water, probably in the fall of the year, but a series of careful experiments conducted by R. B. Roosevelt, Esq., President of the American Fish Culturist's Association, and one of our leading ichthyologists, inclines him to the conclusion that eels spawn in fresh water in the spring. As to the propagation of species in the eels, that is a hidden secret. Even the sex of the eel has not been well determined. Any one who will determine the two facts—as to sex and method of propagation—will make a distinguished name for himself in ichthyological science.

—There are now twenty-seven States whose Commissioners of Fisheries receive, hatch and distribute the eggs of fishes furnished by the United States Fish Commission.

## Natural History.

### HABITS OF THE RUFFED GROUSE.

NEW HAVEN, CONN., Jan. 1, 1878.

EDITOR FOREST AND STREAM:

Having been intimately acquainted with the ruffed grouse for several years, the frequent remarks concerning him in FOREST AND STREAM have naturally attracted my attention.

Lately, some of your correspondents have been much concerned about the disparity in the sex of these birds. Now, I don't believe that any one can determine by plumage, the sex of the grouse when under eight months of age, for then the ruff in both male and female is of the same size and color, and nearly as dark as in the old male. In examining a great number of specimens, I find that three and three-fifths of all the birds killed are young, so you can easily see where the mistake lies—all of the young of the year, besides the old males, have been counted as males. For the last five or six years I have noted the proportion of male, female and young of all the game birds that I have either killed myself or seen in the markets, and find that the numbers of males and females are very nearly the same.

In October and November the young grouse weigh from 16 to 22 ozs., while the old birds weigh from 24 to 25 ozs. Occasionally, you find an old grouse very much larger than the normal size, and weighing two pounds or over. Within the last two years three or four such birds have been brought to our taxidermists to be stuffed.

Several authors have noticed a larger proportion of the Eastern ruffed grouse with the red plumage. I have hunted only in Connecticut, and in Eastern and Western New York, but can see no difference between the birds in this respect in these places, more of them being in the gray plumage whenever shot.

Only on two occasions have I been able to get a view of cock grouse drumming, and then not a very satisfactory one. On reading the notes of your correspondents who believed the bird to strike the log/rock or

ground with the tips of his outstretched wings, I was perfectly satisfied that the thing was settled, as my two stood perfectly erect, as described, while the opened wings were carried to the feet at every stroke apparently. But last week a correspondent states decidedly that the bird drums by striking the wings over the hack; so again there is doubt in my mind, as these two birds certainly did bring the wings very nearly if not quite together over the back. Analogically considered, the ruffed grouse drums in the same manner as the barnyard cock beats his wings just before crowing. Last year an old cock grouse which I brought down with a shot through the head, commenced to drum irregularly as soon as he had touched the ground; but a nervous young dog which I was using, rushed in and retrieved it before it could be seen.

Have any of your correspondents noticed the fact that the ruffed grouse in the Western part of New York will almost always alight in a tree at the end of its flight. While in Connecticut it very seldom does so. R. T. M.

[I quite agree with our correspondent that it is impossible to tell with certainty the sex of the ruffed grouse from the plumage alone. We do not hesitate to declare that if the statements as to the disparity of the sexes in birds killed during the season are based merely upon the appearance of the specimens, they are of little value. Dissection is the only safe method of determining this question, and we hope that our readers will bear this in mind, and next season will give us the benefit of their experience in the matter.—Ed.]

RUTLAND, Vt., Jan. 1, 1878.

EDITOR FOREST AND STREAM AND ROD AND GUN:

I have been much interested in reading the articles in your paper from your various correspondents concerning the "ruffed grouse." Up here in Vermont, where game is so scarce, we consider the "partridge" the prince of birds, and when I even hear the word spoken I have the same sensation that I imagine a terrier has when somebody says "rats." I know that you can appreciate that feeling, and will bear with me if I give you a little of my experience. I can add my testimony to that of your Ferrisburgh correspondent in your issue of Dec. 6th, as to the vitality of the partridge. I am not a good shot on the wing, but I always make it a rule when a bird rises anywhere in sight to blaze away, knowing that if I don't fire I won't kill anything. I have often been astonished at my success in finding my bird after it had flown away apparently unharmed. A few days since I was passing down a ravine along the course of one of our mountain streams when I saw a partridge sitting on a small spruce within easy range ahead of me. I dropped the bird, which immediately got up, ran a few steps and then flew down the ravine out of my sight. I followed him so long as I thought there was any chance of finding him, but finally gave him up as a lost bird. Three days afterward I was hunting in the same locality, but followed the course of the stream up instead of down as before. When I had arrived within about one hundred rods of the place where I shot my bird I found him lying upon his back dead. He was fairly riddled with shot.

I spent nearly a month in the "North Woods" this fall, camping on "Big Wolf Pond," about eight miles from Big Tupper Lake. I shot a few partridges near our camp with my rifle. I remember one particularly tough one that I captured. The ball from my rifle (cal. 44) nearly cut his neck from his body, leaving his head fall entirely over in front, yet the bird ran nearly twenty rods in my plain sight before he yielded, and then I believe it was only from loss of blood.

The grouse, although not remarkably plenty near our camp, were very tame, and I had the chance that I have often wished for to see them drum. Toward sundown one evening I heard a bird drumming near by, and I succeeded, by carefully creeping through the brush, in getting within a rod of him, and watched him repeat the call several times. I was so near the bird that I could not be mistaken in the evidence of my senses. The wings are raised slowly, about to a level, and then a quick downward motion is given increasing in rapidity. The wings do not hit any hollow log, or the bird's sides, or anything else. Of all the birds killed by our party only one was a hen.

S. E. BURNHAM.

THE EUROPEAN STARLING.

EDITOR FOREST AND STREAM:

Some time ago, while an interesting discussion was going on in FOREST AND STREAM on the good and bad qualities of the English sparrow as a new citizen of our country, some one contributed to your columns an article on the European starling, highly commending him as having all the good points of the sparrow and none of his bad ones. Besides it stated, if I recollect rightly, that he is no mean songster. This article interested me very much, and I have since been thinking a good deal of the starling. Will you please post me on these points? Is he pugnacious to such a degree that he will drive other birds from his bailiwick—for instance, our mocking-bird, the sweetest of all feathered songsters? If he is I want none of him, whatever may be his good points. Next, is he a first-class bug and worm-eater, and will he put himself to the trouble to hunt and scratch for them? Is he urban or suburban in his habits, or will he fly away and take to the unfrequented forests and fields? Will he survive a trip over the raging Atlantic, and, if so, what is the best season of the year to import him? Does he sing well, and will he assist in making our homes vocal with music? And, lastly, is he a pretty fellow to look upon?

My reason for asking these questions about the starling is this: We stand greatly in need, in this portion of Texas, of an industrious, indefatigable bug and worm-eater—one that will work well in winter. During the warm days of our winters our gardens swarm with wretched pests, inflicting severe damage on, and sometimes destroying, our cabbages, cauliflowers, etc. Indeed, they are worse in some winters than at any other season, for the reason that the bugs and other "varmin," whose peculiar food is the tender vegetation of spring and summer, being left still alive and kicking, and, compelled to have something to eat, pitch into our hardy winter crops, which are the only kind that we grow at this season. Thus, in addition to their own peculiar enemies, the cabbage tribe now have to contend with the peculiar enemies of the Cucurbitaceae and other hot season plants. The strip bug is now attacking my cabbages and cauliflowers in precisely the same way that it does the leaves of the melon, cucumber and squash in summer; and the cut-worm climbs up on the plants to eat the tender leaves. Butterflies, depositing villainous larvae, are now depositing on my grounds. We want something to help us fight these pests, and if the starling will make a good ally, and is not too objectionable on other grounds, I propose to join with others and import him. His kinsman—our common blackbird—is a good bug-eater, but he is too fond of damp grounds and forests, and will only stay around us in wet weather. As soon as it gets a little dry he hides as good-hy, to return no more till it rains. I believe that we have no other bird that devotes his attention particularly to our destructive bugs and worms.

As for the English sparrow, I am distrustful of him. I am satisfied that he is a good insect killer, but I dread his furious pugnacity. I have seen them in your New York parks gather together in knots and balls and fall to the ground, fighting one another like forty wild-cats. I believe, if you were to turn a mocking-bird loose in one of your parks

they would skin him alive in three seconds, and then tear him into minute meat. N. A. T. Houston, Texas, Dec. 27, 1877.

[Our correspondent asks us a good many questions, but we will try to give him such information as we have space for. The starling is said by British ornithologists to be not at all pugnacious. It is very sociable and mingles freely and amiably with flocks of other species of birds. The food of the starling consists chiefly of insects of various kinds, worms, snails and so on, with occasionally a little grain seed and fruit, much the same diet, in fact, as that of many of our blackbirds. Whether he will work hard after insects when he can get other food at a smaller expense of time and trouble we do not know, but presume not. If he will he is certainly very differently constituted from other birds and indeed from all animals. The starling dwells indifferently in town or country, and in many English cities is found in great numbers, breeding in church steeples, holes and crevices in walls, etc., etc. This species is said to sing rather nicely, although it is by no means celebrated for its powers in this line. It has been taught to speak, and, under favorable circumstances, is said to display considerable conversational powers. Lastly, he is a pretty fellow to look at, being shining glossy black in color, each feather tipped with a spot of cream color or brownish white.—Ed.]

SQUIRRELS AND EMASCULATION.

JERSEY CITY HEIGHTS, Dec. 31, 1877.

I was much interested in the last number of FOREST AND STREAM AND ROD AND GUN in an article from Chas. Linden in regard to squirrels and emasculation. The theory he advances, giving as authority Prof. Grote, Director of the Buffalo Society of Natural Science, is, indeed, "a new thing under the sun" to me. That an insect is the entire cause of this very common operation on the *Sciurus*, both the gray and black, for I believe it is an indisputed fact that they are identical—that this *Oestrus emasculator* deposits its egg on the testicles of the rodent, and that this egg, after developing into a larva, gradually destroys the organs and leaves no sign, seems to me most improvable.

Is it possible that this is a fact? I have often found this larva or grub, or something very similar, with its head deeply buried in the flesh of animals, more especially of hares and squirrels in the spring and early summer; but have generally found them about the neck of the animal, but never discovered them in any other place, as the animal, one would think, would make short work of these surgical individuals, could it readily get them. I hope Prof. Grote or Mr. Fitch, of Albany (another authority C. L. quotes), will give us an article in your columns and throw some light on this (as it strikes me, rather daisy) theory.

Again, C. L. rather takes Mr. Fitch to task for being inclined to place reliance upon the many reports of trustworthy persons, who testify emphatically in regard to their personal observation of the red attacking his larger congener for the purpose of performing this operation. What country boy familiar with squirrels and squirrel hunting does not believe this, and scores can positively testify to this act of surgery, as witnessed by them performed by the chlocoree, the Ishmael of the rodent tribe, and pirate of the forest (for it is nothing else), upon their larger brother.

Now, I know whereof I speak, for my eyes have absolutely seen the thing done. In good old Madison County, New York State—and it was a good place for squirrels, I tell you—I remember well one day having taken my place on a log in a wood, waiting for the gentle dropping of a bud or nut, or the rustling of him, to notify me, where the busy tail was concealed, I was aroused by the shrill chi-chi-ohi-ree-e-e-e of the *S. ludsonianus*. I soon espied the impudent rascal cocked up on a limb, his tail on his back, reeling off his song like a first-class sewing machine. As the presence of one of these fellows in our hardwood forests is often a good guide to one of the larger kind, gray or black, I waited to see if this should prove an exception to the rule. Suddenly a branch rustled in another part of the tree, and I saw that a large gray was endeavoring to steal off to another neighborhood. With a sudden chir-e-e, and a whisk of his tail, like a flash the red was after *magister-fus*. The gray turned and made for the top of the tree, and had reached the very highest point when overtaken by its more nimble pursuer. Almost at the instant of the actual contact of the two animals, as it seemed to me, I fired, and both came tumbling to the ground. Upon examining them, to my astonishment I found the act of surgery on one of the testicles complete, and the sac of the other was silt as neatly as if done with a keen-edged knife. As a gelder, *S. ludsonianus* was a most skillful success.

C. L. speaks of the large number of these animals found with their organs lacking, and showing no scar or ulceration. I have often noticed that fact myself, as well as found them with very perceptible scars, but I supposed the absence of the latter might have been owing to the act having been performed when the rodent was quite young, and that it had become grown over and obliterated.

This grub or larva theory, I must confess, is very interesting, and I hope it will be more fully ventilated by the scientists, or those that have more particularly studied the characteristics of these beautiful creatures. Why the reds do this thing, and why the gray, a so much larger and stronger animal, though by no means as nimble, should allow it to be done, is a scientific conundrum that I have never seen answered.

JACOBSTAFF.

NEW YORK, Jan. 2, 1878.

EDITOR FOREST AND STREAM:

My attention was called to an article in your last issue entitled, "An Ill to which Squirrel Flesh is Heir." Are the causes to be ascribed to an insect?

Now, Mr. Editor, I will, if you please, relate a little of my experience which "fond memory brings to light." Some thirty years ago the Western part of New York State was largely covered with heavy timber, oak, beech, hickory and maple principally, and these woods were the favorite haunt of the black squirrel which were found there in great numbers in those days. There were also some gray and a good many red ones. It was the principal sport in the fall season among the farmers' sons to form parties of three and four and, accompanied by one or more dogs, to shoulder their light squirrel rides. It was really grand sport; the dogs at times would have three or more up the same tree, and rarely one escaped, for the boys were good marksmen, as the heavy bugs at the end of the day's work proved. It was at these hunts that my attention was first called to the subject which forms the caption of this article. It was always customary after finishing up to divide the game as we were seated under some tree talking over the events of the day. While the game was being counted the singular appearance of some of the black squirrels caused us to examine the animals minutely and to debate as to the cause, for it was not found either in the gray or red. We appealed to older heads who had used the rifle for years and shot large numbers, both of black and gray, and there was only one opinion expressed; the red squirrel was the aggressor. It was a very common thing to see a black squirrel jumping from tree to tree in the greatest fear while his little red enemy was in close pursuit. I myself have shot a black squirrel

rel with the wound but partly healed, and so jagged that no insect could have had anything to do with it. Why is the black is the only victim if it was an insect? I never saw a gray or red so afflicted, nor ever heard of it though they live in the same woods. I have shot a black and grey of the same tree. I have no doubt among the large circle of your readers it will awaken the same interest that it has in my case, and call forth the views of many who, like myself, have enjoyed many a day's sport with the squirrels. CHIT.

[The above communications are very interesting and correct one another on a number of points. We have just received from our correspondent—Dr. J. M. Smith, of Lafayette, Indiana, the following note which admirably supplements them.—Ed.]

The article on the castration of squirrels in a recent number of FOREST AND STREAM brought to my mind an incident that happened two years ago. My brother and I shot two full grown fox squirrels that were both castrated, and I shot a gray one last June, that was about two-third grown, in which the wound had not healed.

It is a common saying among the old woodmen in this country, that the old males castrate the young ones. I know one thing, and that is that there are no small red squirrels in this country, and no black ones to be found nearer than the Kankakee River.

[We would be very much pleased to hear from Prof. Grote on this subject, and hope that other friends will give us their experience. It seems to be a well established fact, however, that this *Oestrus (Cuterebra emasculator)* described by Fitch, does live in the scrotum of squirrels and destroys one or both testicles. A high authority says: "In some parts of the country it is often quite common, and doubtless greatly diminishes the number of squirrels."—Ed.]

A CURIOUS HYBRID.—The London *Sporting and Dramatic News* publishes a description of the hybrid, the offspring of an African zebra and an Abyssinian ass. The young animal resembles both parents, its color being grayish inclined to fawn, and its legs showing very clearly the zebra stripes.

A SAVAGE DEER.—The following dispatch to the Boston *Herald* shows how dangerous tame (?) deer sometimes are: *Newburyport, Mass., Dec. 20.*—At Newbury, yesterday morning, Mr. John Little, an old gentleman 70 years of age, living on Ocean avenue, found an American deer, belonging to W. C. Johnson, Esq., looking in at his window. He went to the door to drive him away, when the deer attacked him and knocked him down, breaking two of his ribs. Mrs. Little then tried to frighten the deer away with an umbrella, but was unsuccessful. Finally a son of Mr. Little came to the rescue and shot the animal.

This peculiar ferocity is, however, believed to be confined to the males during the rutting season.

SWEDISH ARCTIC EXPEDITION.—The scientific expedition which is to sail from Gothenburg, Sweden, next July, for Arctic exploration, is to be fitted out with provisions for a three-years' cruise. The expedition is under the patronage of the King of Sweden, the Government, Oscar Dickson, of Gothenburg, and Mr. Sibiriakoff (a Russian). The route will be from Novaya Zemlya, along the coast of Siberia, through Behring Strait, thence they circumnavigate Asia, and return via the Suez Canal.

\* A CANADA MOOSE FOR THE PARIS EXPOSITION.—Canada is to send a magnificent specimen of the moose family to the Paris Exposition next summer. The animal when shot was in its prime, being about eight years old. Its dimensions were, from fore hoofs to neck, six feet; girth just behind fore legs, six feet six inches; length from tip of nose to tail, nine feet; pan of antler, two feet nine inches; spread of horns, four feet; bell, fifteen inches; length of head, two feet eight inches.

Woodland, Farm and Garden.

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, SECR. N. Y. HORTICULTURAL SOCIETY.

HOUSE PLANTS—[Continued.]

FLOWERING PLANTS.

IN a life-long experience we have seen many plants succeed well in one situation, or perhaps under peculiar conditions, that would fail under other treatment; but perhaps the greatest reason for failure in the cultivation of window plants is the choice of unsuitable varieties. Without stopping to think as to whether it is likely to succeed well or not in the dry atmosphere of the sitting-room, when we see a beautiful plant full of bloom or blossom buds we are very apt to buy it at once, and wonder at its so soon giving way and becoming unsightly. There are, however, many plants that will do tolerably well under what may be called "half-and-half" treatment, but which under generous care will be a source of pleasure to the cultivator, and these we propose to mention. This must be borne in mind, however, that very few plants will succeed if they are removed at once from the warm, moist atmosphere of the green-house to that of the parlor or sitting-room; they should be gradually inured to a dryer atmosphere, and they will not suffer. Plants forced into bloom in small pots have no constitution to stand such a strain on their vitality, and of those bought in early spring for window decoration, perhaps not one in ten survives. All plants taken from the open ground in September should be pruned back into shape in August to give the young growth a chance to start properly. They should be carefully potted, as before directed, and hardened off in the shade out of doors, removed to the house when there is any fear of frost, and on warm, sunny days should have plenty of fresh air. By this treatment early winter blossoms may be secured; whereas, if

The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age. 2. Food and medicine given. 3. Appearance of the eye; of the coat; of the tongue and lips. 4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc. 5. Breathing, the number of respirations per minute, and whether labored or not. 6. Condition of the bowels and secretions of the kidneys, color, etc. 7. Appetite; regular, variable, etc. 8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg. 9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the place. Also give any peculiarities of temperament, movements, etc.; that may be noticed, signs of suffering, etc.

TREATMENT FOR HYDROPHOBIA.

WASHINGTON, D. C., Jan. 7, 1878.

EDITOR FOREST AND STREAM AND ROD AND GUN:

Dear Sir—In your issue of Jan. 3 you are kind enough to call the attention of your readers to my letter regarding *Rabies canina*, but you mention that the advice I give is the treatment for hydrophobia. Allow me to correct you in this particular. What I suggest is not the treatment for hydrophobia, but for the prevention of this disease; for it is not every individual bitten by a rabid dog that has hydrophobia. I trust you will pardon me for venturing to insert here a paragraph from Sir Thomas Watson's admirable paper on hydrophobia, which seems to possess a special applicability to the case in point. After stating that this plague (hydrophobia) in his opinion, might be permanently abolished, he says: "The disease, or rather the pair of diseases to which I advert, consists of hydrophobia in the human species and rabies in the canine. It is well to keep in mind the distinction between these two. (Italics mine.) There would be no hydrophobia where there was no rabies; there can be no rabies unless it be communicated by a rabid animal. But they are not identical diseases. To use the concrete form of speech, rabies in the dog is quite different and distinct from hydrophobia in the man. The term hydrophobia is often erroneously applied to both diseases, but the rabid dog is never hydrophobic." I purposely call your attention forcibly to this matter of nomenclature, fearing that perhaps some one seeing my article and reading your kind paragraph approving of the treatment might insist upon cutting and cauterizing a sufferer from hydrophobia, which plan of treatment, good at the proper time, &c., immediately after the bite, would, in my opinion, only increase the nervous perturbation under which the patient suffered. When I wrote my article I had not read Sir Thomas Watson's lecture, and I am delighted to find how closely my opinions follow those of this distinguished teacher. Let me suggest that, as the public attention is now greatly excited over the subject of hydrophobia, that it might prove of interest to reproduce in your columns Dr. Coues' article on skunk rabies in one of the recent publications of the U. S. Gov't. Surv. of the Territories, the title of which is *Fur-Bearing Animals Miscel. pub. No. viii, 1877.*

Very truly yours, H. C. YARROW.

THREE HUNDRED DOLLARS DAMAGES

WHAT IT COSTS TO KILL A GORDON SETTER—SANDFORD VS. ALLEN.

A CASE of great interest to owners of dogs was tried in the Monmouth County Circuit of the New Jersey Supreme Court some few days ago. Mr. E. S. Sandford, Jr., was the owner of a valuable Gordon setter, named Oberon, which had been placed in charge of Hart Haight to be broken. In July last the trainer, visiting a neighbor, accompanied by the dog, suddenly lost the dog. He was told that a man named Tom Allen, a farmer, had just shot a dog. On being questioned in regard to his (Allen's) shooting of a dog, he admitted to having fired his gun at a dog somewhat resembling Oberon. Haight, in making diligent inquiry for the dog and not finding him, went to a field, when he found marks in the stubble field where the earth had been lately dug up. On Haight removing the earth, there were indications that some animal had been first buried there and afterwards removed. A tuft of hair, black and tan, such as existed on Oberon's fore legs, was found, which confirmed Haight's suspicions. The tracks of a man leading from where the dog had been buried to the river, seemed to indicate that the body had been thrown into the water. Mr. Sandford, represented by Hart Haight as bailee, in place of the owner, brought suit for \$500 damages against Allen. Gen. Haight and W. H. Vredenburg appeared for the plaintiff, and Robert Allen for the defendant. Prices of dogs were presented to the Court, Mr. Sandford testifying that large sums of money were paid for Gordon setters, and that Oberon was a favorable specimen of the race. Oberon's pedigree from the Duke of Gordon's kennel was produced. Allen admitted that he had shot a dog and buried him. He alleged that his sheep had been worried by dogs two weeks before, and seeing a dog going in the direction of the sheep he had shot the dog. He admitted, however, that the dog he had killed was in a field adjoining the public road, and that a cornfield intervened between that field and the field where the sheep were.

The main points in Judge Scudder's charge were as follows: The case was one brought by the bailee in the place of the owner, and the charge made by Haight is that Allen shot the dog in the month of July and killed him. The plaintiff denied killing the dog Oberon. The Jury had to be satisfied that the dog killed was Oberon. A dog collar had been produced, but which was not the collar belonging to the dog which was killed. The question was did Allen kill the dog? By his own evidence it seems that Allen did kill a brownish dog—though he has said that it was a black dog which he had shot—and between the two statements there is a substantial agreement that the dog killed was black and tan. The plaintiff

would give no clue as to the dog to Haight. Allen misled and deluded Haight, which was evidence of a guilty mind. Why did not Haight frankly state that he had killed the dog? The dog was then certainly on Allen's ground without any right. The dog was on another man's land, without invitation or permission. But every trespass of a domestic animal upon another man's land does not give him the right to kill it. If it is doing damage the law gives him a remedy against the owner, but he has no right to shoot a horse or a cow or a dog, or any valuable domestic animal, merely because it is trespassing upon his land. A man might be justified in killing a dog if it was on his premises destroying, or even chasing or worrying his animals. For instance, it is said that this defendant kept a large number of chickens. If this dog had been chasing or destroying his chickens he might have been justified in killing, and thus preventing it from doing any further damage of that kind. There is a special authority given by our State to kill dogs found trespassing, and that authority is given for the protection of sheep. Our statute enacts that "It shall be lawful for any person to kill any dog or bitch which may be found chasing, worrying or wounding any sheep or lamb." By another section the owner is made liable if he does not kill a dog that is found chasing or worrying or wounding them, after a notice of twenty-four hours. There is an express statutory right given to kill under certain circumstances. But there is no evidence in this case that this dog was worrying, chasing or wounding the defendant's sheep or his property. The defendant says that the dog was smelling about the ground, where the sheep had been some time before, and had gone twenty yards in the field where they were. But the dog was not in the same field; there was a cornfield between them. The dog was not worrying or chasing the sheep. The defendant did not even attempt to drive the dog off. According to his own evidence, he took a gun and shot the dog, merely because he was smelling the ground and looking in the direction of the sheep. This being so there can be no justification for the act under the statute. Perhaps a single call would have attracted the dog. He took the responsibility of going to his house, getting his gun. After snapping the first barrel, exploding the second one, he killed the dog. The further question is started in this case, whether an action is maintainable for killing a dog? I think it has been settled long since that such an action may be maintained. There may be value in a dog recognized by the law. A dog may have an intrinsic value for certain qualities which he possesses like any other domestic animal. He may be valuable to his owner as a watch dog; he may, as in this case, be valuable to the owner as a hunting dog; and when human skill and labor have been spent upon a dog, and expense has been incurred by the owner to develop any natural qualities which he may have and make him more useful for hunting, that dog has a value to his owner, who may recover damages. The question," the Judge now said, "was one of value—the worth of the dog in the market. Mr. Sandford had agreed to pay Haight \$50 to break the dog, and a part of this money had been disbursed. The dog's special value was for his breed; that he was a Gordon setter, not a mere fancy dog, but for intrinsic qualities. If the dog had special and distinctive qualities, these must be valued." Punative damages, his Honor did not see, could be accorded. No malice was shown. The defendant did not know Haight. Perhaps the defendant might have thought he was exercising his rights in killing the dog. If the dog had been following his master on the road, and Allen had shot him, and wantonly killed him, there might have been in such a case evidence of malice.

After a short deliberation the jury awarded the plaintiff \$300 damages. We may remark that Judge Scudder's decision was a just one, and covered the case.

It was not necessary for the counsel for the plaintiff to prove malice, though evidence of a damaging character might have been brought against Allen which might have entitled the plaintiff to punative damages. Mr. E. S. Sandford, Jr., brought on the suit, with no idea of using the law to its utmost extent, but simply to show a very ignorant and certainly brutal fellow that dogs are not to be shot with impunity.

For Forest and Stream and Rod and Gun RUSSIAN SETTERS.

IN an article on this subject published in FOREST AND STREAM last August, I reiterated an opinion expressed in a previous communication that "there is no pure breed of setters peculiar to Russia."

This was in reply to a sharply criticising letter from "Canonicus," in which he asserted that "none but a novice or tyro could give public vent to such lamentable ignorance as the above sentence exhibits in canine knowledge," and "Canonicus" assures the sporting brotherhood that "the setter strain of Russia has been bred and kept strictly pure for the last century," but offers no evidence except quotations from "Frank Forester." Not accepting those quotations as proof of "C's" assertion, and that I might not again be accused of "lamentable ignorance" of canine matters, I expressed a desire for information on the subject from some one more competent to speak than myself. Since then, however, I have seen nothing on the subject from "Canonicus," nor from any—cus, until quite recently. Referring to some letters on "The Dogs of Russia," written by Lieut. Ismailoff, of the Russian army, and published in the *Spirit of the Times*, the editor of *The Country* remarks that no mention is made of the so-called "Russian setter," and further adds, that in a personal interview Lieut. Ismailoff stated that "there was no breed of setters that he claimed as being purely Russian, and that the dogs known by that designation must have had as progenitors animals imported from Europe, successive generations of which had gradually been changed by climatic influences, until they had assumed the appearance of a different type." This sustains me in my original statement, and is evidence of value, coming as it does from a Russian gentleman, who is in a position to know much whereof he speaks. Lieut. Ismailoff ascribes to "climatic influences through successive generations" the cause of these dogs appearing to be of a different type. Of course, if not of a distinct breed and entitled to

the transplanting is delayed too long, from their weak growth in winter, they are likely to be infested with all manner of insect pests, seldom blooming till February or March, and even then are good for little but to plant out of doors for next season's growth, for which they are not nearly so well suited as plants fresh from the green-house. Confining this notice to winter blooming plants it must necessarily be brief, and will be arranged in the order we have found them do best, and consequently give most satisfaction.

**Chinese Primroses.**—Time out of mind these lovely plants have been the loved of all, either for the conservatory or house. They can be raised from spring-sown seed, making large plants by fall. They are constant and free bloomers, are never infested with insects, and stand the dry heat of a living room as well as, if not better than, any plant we know of. There are many varieties offered in the seedsman's catalogue, but the fringed varieties, red and white, and the fern-leaved varieties of the same colors are the best and strongest growers.

**Persian Cyclamens.**—Neater and more attractive plants than these it would be difficult to find, the colors varying from the deepest crimson to pure white; they are often very fragrant, and the flowers, which in a cool room will last in beauty over thirty days, look like a rabbit with its ears up. (A lady whispers, "More like a shuttle-cock," and that she has had the one plant with over fifty flowers open besides a huds on it at once for nearly three months.) This was in a cool room, however. The leaves are also often beautifully blotched and mottled. They are best planted out during summer in a shady border, and potted in September, or as soon as they show signs of starting into growth. Give all the light possible and do not over-water, especially at first.

**Ornithoses.**—Some of the varieties of this charming class are great favorites, blooming as they do all winter, and, owing to their drooping habit, they are often used for hanging baskets. The foliage is neat and clover-like, and some varieties are beautifully cut, and marked or splashed with brown. *O. floribunda*, both white and red, is seldom out of bloom summer or winter; *O. versicolor* (the barber's pole) is lovely in bud as well as when fully expanded; the yellow variety, *O. cernua*, is very fragrant and free-blooming; *O. bowei* is more of a fall species, but lasts well into winter. Its flowers are large, bright rose-colored, and it is altogether a splendid variety. *O. rosea* is also well worth growing for its neat habit and large rose-colored flowers.

**Richardia.**—The *Calla* or Egyptian lily is one of the most satisfactory, as well as beautiful, of house plants, and seems to have a special attraction for lady cultivators. Plenty of water and a rich soil, with an occasional watering with liquid manure, and the *Calla* will be a joy all winter and spring. Dry off during the summer, and, shaking off all the old soil, replant in September in a rich, rather open compost, giving water more freely as the plant gains in growth and strength. The variegated species, *R. alba maculata*, is only useful for late spring and summer cultivation.

**Azaleas.**—We have just seen to-day, Jan. 13, a plant of *A. phoenicea*, flowered by a lady in her sitting-room for three years, that is as perfect in leaf and blossom as if raised in a greenhouse by any of our most skillful florists. All the large-leaved, strong-growing varieties, no matter what color, or whether double or single, are good subjects for house culture. They should either be planted out or plunged in a shady border during summer, and carefully syringed occasionally with soapy water during hot weather to prevent the red spider getting a foothold.

**Abutilons.**—The various varieties of this lovely Chinese bell-flower are all good house plants, though the stronger growing varieties are perhaps too robust for ordinary cultivation. *A. striatum*, yellow, striped with red; *A. patersoni*, large, reddish crimson; *A. Thompsoni* and *A. varicellatum variegatum*, with their beautifully blotched and mottled leaves. *A. boule de neige* is a very free blooming variety while still young, and *A. darwinii* and *A. darwinii tassellata*, newer sorts, are also very free bloomers, and will be sure to give satisfaction to all who try them.

**Cypripedium Insigne.**—This most curious orchid, generally known as Chinese lady's slipper, is an excellent plant for the window garden. The soil should be coarse peat, loam and charcoal, with lots of drainage. It should have plenty of water while growing; will do well in a shady, northern exposure in summer, and if kept in a tolerably cool room, will flower from December to April.

(To be Continued.)

**PLANT MANURE.**—The following artificial manure is recommended for plant culture by M. Jeannel, of Paris:

Nitrate of ammonia.....	400 parts
Biphosphate of ammonia.....	200 "
Nitrate of potash.....	250 "
Hydrochlorate of ammonia.....	50 "
Sulphate of lime.....	60 "
Sulphate of iron.....	40 "
Total.....	1,000

M. Collardean reports, in the journal of the Horticultural Society of France, that he employed this manure with great advantage. He struck several cuttings of *Pclargonium* and *Fuchsia*, and placed them all under the same conditions, excepting that while some were watered with the plain water, others received, once a week only, a watering with 50 grammes of a solution containing four parts in 1,000 of the saline mixture above detailed. The results are stated to have been very satisfactory.

—Paris has 100,000 trees, each of which costs about \$36. They live about fifteen years.

**HOW TO SAVE CORN FROM RATS.**—Mr. Peter Zehnder for the past two years has sated a large portion of his corn in the shuck when he housed it, and none of it was eaten by rats, while that put up without salt was almost entirely destroyed. This is a simple remedy, and as the shucks when sated are greedily eaten by cattle and horses, it is certainly worth trying.—*Tuscumbia North Alabamian.*

**CENTRAL N. Y. POULTRY SHOW.**—The fourth annual exhibition of the Central New York Poultry Show will be held at the City Hall, Utica, Jan. 29 to Feb. 5.

**A FINE SELECTION OF PURE-BRED FOWLS.**—Mr. Leavitt, Whitesone Ave., four blocks from Bridge St. depot, Flushing, L. I. (only twenty minutes from Thirty-fourth St. ferry), has the finest selection (about 100) of pure Dublin imported bred fowls of twelve different varieties—Partridge-cochins, S. S. Hamburgs, Dutchess, Black Spanish, etc., etc. Price very low, \$1.50 to \$5 each. Call at residence, Flushing, or at 10 Pine St., Office of Gerard Ins. Co.—*Advs.*

classification as such, there can be no such thing as a typical Russian setter.

I do not deny the existence of the individuals to whom the term is applied, for I have not only seen them, but have shot over them. I do not ascribe their appearance to climatic influences, but to a direct cross, either near or remote, as the case may be, between setters and dogs of some other breed. It may have been a pure bred retrieving spaniel, or it may have been a mongrel. In short, the Russian sportsmen may have a fancy for uniformly crossing the setter with some special breed, or they may cross it indiscriminately with such dogs as are convenient. The "cross of a Russian setter" is common enough in this country, but I have never seen here a dog that was claimed to be a "thorough-bred Russian setter." If such a dog exists I should like to see its authenticated pedigree. My most recent experience with a Russian setter was with "Dolly," an American bred dog, whose grand sire was owned and imported by Alexander Bodiscoe, the Russian Minister to the United States for a term of years. "Dolly's" dam was a bitch of such fine field qualities that \$250 was offered for her by some gentlemen who shot over her with the owner. "Dolly" is a dull liver and white bitch, with a docked stern, and would hardly pass as even a half-bred setter. A peculiar mark that is transmitted to some of her progeny is the long hair on her head, which grows to a length of several inches, when allowed to, but which is usually kept clipped. She is certainly not pleasing to the eye, either in form or coat, and as she suspiciously approaches a stranger, with tucked tail, arched back and prominent ribs, appears like a veritable "nigger hound." But she has much usefulness, and if you can call her to you and look into the brown eyes that show so much intelligence, you will see that she is not entirely without beauty. Her master says that she is of the pot-hunters' breed, for no sportsman would care to have her at heel outside of the field, but in the field more birds can be bagged over her alone than over any or all of his dogs. She has no grace of motion, but is exceedingly busy, and has a very fine nose. Although not very thoroughly broken, she is very docile, and knows better where to hunt for game than the average sportsman. Now, let us take you into the field with her, kind reader, and if you are fond of partridge shooting, and there are any birds to be found, it will be no fault of hers if you do not have many shots. At the word, off she goes at a peculiar gait, that seems automatic, and one that she keeps all the day, to search the places at which she knows from experience the birds are most likely to be feeding. Soon we see her retrace her steps for a few yards along the side of a ditch, and come to a stand, the stern beating double quick time with short strokes. When we approach, she turns about, and, resuming her mechanical "lope," goes straight away down the side of the ditch, leaving you for a moment to think that she had deceived us by making game falsely. But no, not so; for she is only off in search of a place where she can cross the ditch without danger of flushing the birds. Soon she is seen coming back on the opposite side of the ditch, where you may be assured there is game. Sure enough she now draws up, gradually her stern stiffens, and we know where the birds lie. Do not try to force your way across the ditch here, for you have plenty of time to follow in "Dolly's" footsteps, and cross by a cattle path. This done, walk up, but don't shorten your breath by hurrying, for "Dolly" will wait for you, and flushing the birds, you may kill a brace.

"Sure, a bird must have fallen. Seek dead here, 'Dolly.'" Watch her now, as with nose to the ground she carefully tracks the running bird that is only wing-broken, and has a strong, sound pair of legs, until she reaches the ditch, into which she disappears, not in the least daunted by the matted mass of vines and briars, and from which she at last emerges with bleeding ears. Having bagged that bird, we will follow along the ditch and gather in more from the same scattered covey. Now, let us hunt the old wheat-field yonder that is bounded on one side by the forest primeval. "What is 'Dolly,' doing? Hunting hares?" Give her time and see. Down a furrow she goes with nose to the ground, crosses to the next furrow, and the next, pursuing a tortuous route toward the woods, evidently on the track of game. On she goes for nearly a hundred yards, and then stops with dropped stern, beating time. "There they are!" But no, for she turns about as if giving it up, and, making a detour around near the woods, comes back directly toward us, and stiffens on what we find to be a covey of partridges feeding in the woods. When "Dolly" found that the birds were running for cover and would not stop, she backed out, and, making a wide detour, headed them. This she will frequently do, yet rarely flushes a bird.

Alluding to "Dolly" and her get, her owner, whom I esteem as a personal friend and a thorough sportsman, writes: "The peculiarities of these dogs are houndish appetites, wonderful noses, staunchness, and great endurance. They will enter a briar patch without flinching, and are altogether the best and ugliest curs I have shot over after twenty-five years' experience."

Yet a thoroughbred setter or pointer will perform the same service, and at the same time please the eye by its handsome form, color, and carriage in action. And after the shooting season is over, those sportsmen who keep dogs not merely as servants alone, but as useful pets, would by far prefer a dog that shows high breeding to one of mongrel appearance, no matter how useful the latter might be.

"Stonehenge" has expressed no opinion as to the right of classification as a distinct breed of setters that may be possessed by what he terms "such poodle-looking brutes as the Russians," but to the description of the animals adds these remarks: "To some people, however, the bag is all important, and so that they can fill it they would use a mongrel or a turnspit." This lamentable fact is often illustrated by sportsmen whose only thought of the dogs when game is found is fear that they may flush before their masters are ready to shoot, and once the birds are up the dogs are lost to sight and memory until the excitement of the moment is over and their assistance is needed in retrieving the dead and wounded. Then, alas! too often will the dogs be seen racing at a distance, having broken at shot, and, crazy with excitement, flush other birds ere they can be recalled. This is demoralizing to both the dogs and their masters, the latter using forcible language not found in the catchment, and the former becoming less staunch with each succeeding occurrence of the kind. Eagerness to fill the bag is the most frequent cause of lack of attention to the dogs when in the field, yet the majority of sportsmen if once shooting over high bred, thoroughly broken dogs must needs acknowledge that there are accessories to sport that give a higher pleasure than can be rendered by a good "bag" alone.

Little has been written in regard to the so-called "Russian setter," except the formulated description without any allusion to its history. I do not believe that one can be found that has a just claim to be classified as a pure bred setter of a distinct breed.

AMICUS CANINUM.

**THE ST. BERNARD DOG—HIS DECLINE.**—The Toronto *Weekly Globe* is authority for a statement that the glory of the original St. Bernard dog has departed. A correspondent of the *Globe* writes, "that the dogs looked lazy and sadly in want of an occupation." Comparisons between the St. Bernards and the dogs of the Pyrenees were decidedly to the advantage of the latter. The deduction to be drawn from these quite possible statements is obvious. "Othello's occupation's gone!" Adventurous travelers no longer struggle through Alpine passes to be overwhelmed by snow storms. Railroads now burrow through the Alps, and the horrors of the Simplon, of St. Gothard, and of Mount St. Bernard no longer exist. Hence there is no use for these noble dogs. It is likely that in time to come, on the English bench shows the only St. Bernards may be seen. It is worth recording that on the Himalayan mountains there exists a race of noble Tibetan dogs, which are to-day the rivals, not the superiors, of the St. Bernards. May be the early Aryan races in their migrations brought with them the progenitors of this famous St. Bernard. It may be well to recall the fact that it was Albert Smith who first, in England, made the noble St. Bernard a favorite animal.

**ST. LOUIS BENCH SHOW.**—We are in receipt of the Premium Lists and Entry Blanks of the St. Louis Bench Show, which may be had at the office of THE FOREST AND STREAM AND ROD AND GUN on application. The following corrections and omissions in the Prize List are brought to our notice:

CLASS 71—Should read, after value \$20: "Also a handsome Shooting Suit, donated by Brown & Hilder, Gun Dealers, St. Louis, value \$25—which will make the prizes in this class amount to \$45 value."

CLASS 92—Should read: "For the best pair, dog and bitch, of Irish Setters, imported or native, owned by exhibitor."

CLASS 93—Should be added, as follows: "For the best English Retriever, dog or bitch, wavy or curly coated, a handsome plated revolver, presented by Brown & Hilder, Gun Dealers, St. Louis, value \$25."

### ABOUT JUDGING AT THE ST. LOUIS BENCH SHOW.

EDITOR FOREST AND STREAM:

I see by your last issue that the judges have been appointed for the St. Louis Bench Show, and exhibitors are to be congratulated on the selection. Handsome prizes are offered for native English setters, from which the "blue bloods" are excluded. This will, doubtless, bring to St. Louis many of our best natives, who will compete with the bane for the special and open prizes. Now, the respective merits of the two have been widely and fiercely canvassed, and many have objected to the decision given against Mr. Morford in New York by the judges selected by Mr. Smith.

So, as the St. Louis managers are anxious that everything shall be conducted in a satisfactory manner to all, I suggest that in the classes where the native and imported dogs are competing for the same prize, that the class be judged by the three judges selected for the different classes, and not by the same one who decided against the natives at New York, whose opinion we already know. In case such a course should be adopted, I am sure there would be a much larger Eastern representation, and the awards much more appreciated.

Respectfully,

FAIR PLAY.

**DOGS FOR ST. LOUIS.**—The Baltimore Kennel Club have chartered a special car from Baltimore to St. Louis and return, to take the dogs which will be sent from Baltimore to the St. Louis Show Feb. 19, to last four days. Some of the finest animals in Maryland will be entered.

**THE BALTIMORE KENNEL CLUB.**—The Baltimore Kennel Club, at a recent meeting, voted to give the St. Louis Bench Show their hearty co-operation, and to use all their influence to induce dog owners in Baltimore and Washington to send their best animals to St. Louis.

**FIRST ANNUAL BENCH SHOW OF THE MASSACHUSETTS KENNEL CLUB.**—This exhibition will take place in Boston at the building in Central Court formerly occupied as the Aquarial Gardens, on Tuesday, Wednesday, Thursday and Friday, March 26, 27, 28 and 29. The entry fees will be \$2, and will be received until noon on March 13, except in case of foreign exhibitors, who will be allowed until March 18. All cash premiums payable in gold coin. The officers of the association are: W. H. Cowing, President; Messrs. J. Fottler, Jr., and E. L. Dorr, Vice-Presidents; T. T. Sawyer, Jr., Treasurer; E. J. Forster, Secretary. Exhibition Committee—Messrs. F. B. Greenough, J. Nelson Borland, T. T. Sawyer, Jr., Luther Adams, Samuel W. Rodman, James F. Curtis, and John Fottler, Jr.

**MEADVILLE DOG, POULTRY, PIGEON AND PET STOCK ASSOCIATION.**—This exhibition will take place January 28th to 31st, inclusive, and not 25th to 29th. Entries will close January 26th. The society has assurances from home and abroad that warrant the supposition that their show will be a remarkably good one.

**POINTS OF THE ITALIAN GREYHOUND.**—The *London Field* gives the following points in judging the Italian greyhound:

Head	5	Pore quarters	10	Color	15
Neck	5	Hind quarters	10	Symmetry	15
Ears and Eyes	5	Tail	5	Size	15
Legs and Feet	10	Coat	5		
	25		80		45

The weight differs with the sexes. The bitch for modern successful exhibition should be a little over 15 lbs., nor should the dog exceed 7 to 7½ lbs. The original dog, as imported from Italy, will weigh 10 to 13 lbs., and are classed as "whip pets."

**DOGS TO POINT DEER.**—A correspondent asks us if there is any variety of dogs which will point deer as setters do birds, so that the necessity of running the deer with hounds may be avoided, as well as that the sportsman may be notified of the near presence of game which he would otherwise be ignorant of. We have read of something of the sort, and believe that there is a breed of dogs in France known as "limiers" which stand on deer or may be trained to do so. We have extended our inquiries on this subject to both sides of the water, and shall hope soon to obtain light. From Capt. John M. Taylor, of Virginia, we have the following very sensible deductions based upon his intelligent observation, and we hope others of our readers will test the question, as far as they are able, whether this method of hunting be practicable, supposing that the dogs can be properly broken:

BELLEFONTE, Nottoway County, Va., Jan. 10, 1878.

MR. HALLOCK:

About dogs trained to point deer. As I live in a grand deer country where I see this animal almost every day, I have come to the conclusion that the deer has as good a nose as the dog. Its wonderful sense of smell is astonishing. Deer, or animals of any kind, will not lie to a dog. They are directly antagonistic. In the bird it is different, as they most assuredly feel the presence of the dog, and are apparently not alarmed. Again, the quick and sensitive hearing of the deer would, in my opinion, destroy all chance of the dog pointing or informing the sportsman of its whereabouts. I am aware that deer are sometimes (not frequently) jumped out of their beds, but that depends wholly, I think, on the wind. For a dog or a man to approach a deer with the wind blowing on the animal in the open or in cover in the fall, having sat ticks within shooting distance, is next to an impossibility. The nose that the dog would make ranging about, breaking twigs, etc., would be of itself quite sufficient to alarm any animal. However, it is possible to break a dog to do almost anything, so I presume there are some dogs in France, as you say, or elsewhere, which are trained for that purpose, but I never heard of them.

### SPARROW DOGS.

EDITOR FOREST AND STREAM:

I see with great regret that at the numerous dog shows throughout the country no mention is made of a class of dogs that will soon be necessary, and that is—a breed of sparrow dogs.

Judging from my experience this season of the scarcity of game, and the efforts of such men as our friend South, in snipe time, together with the new hammerless 100 yards gun, etc., there no doubt, or soon will be, a good chance for the breeders to dispose of a large number of sparrow dogs. Sparrows are, as yet, numerous, and, with proper protection, will afford sport for some years. Our children will, undoubtedly, have fine shooting in that line, and over their evening pipe discuss the legends of extinct birds, called ruffed grouse, quail, etc. And if they come across some rare old copy of FOREST AND STREAM, giving accounts of our shooting, put it down as—well, a highly improbable story, to call it by no worse name. I throw out this hint to dog breakers without charge, and hope they will profit by it.

W. HOLBERTON.

**HOW LADIES SHOULD DRESS IN THE HUNTING FIELD.**—With regard to ladies riding regularly to hounds, it must now be considered an established fact that the presence of a considerable number of good sportswomen is always to be looked for with every first-rate pack. As a guide to those of the fair sex who may intend to join in this favorite amusement, the costume of the hard-riding huntress of the present day consists of a short, closely-fitting habit of blue cloth of different shades, or, of light gray, with collars and facings corresponding with the uniform of the hunt, when it is of a distinctive character, such as the Beaufort or the Pytchley. A tall hat, well curled at the brims; a white neckcloth, with neat gold pin; stand-up collar; and last, not least, high boots of varnished leather and a hunting crop, with, of course, a drab Ulster of many capes, to wear when driving to cover in a dark-green or oak-colored dog-cart, drawn by a very clever stepper, with the natiest of grooms alongside; or, if preferred, a tandem or team of first-class nags. It is essential that ladies, in the latter case, should take lessons, so that they may be able to handle the ribbons in proper form when they come into the Shires to exhibit their perfections, as they will find many first-class performers already in the field.—*London Telegraph.*

**FOX HUNTING IN VIRGINIA.**—The Lynchburg, Va., *News* expresses the opinion that there are in Virginia ten well broke and well bred hounds and hunters for every one in England.

—Two young men of Newburg, N. Y., went gunning the other day, taking with them a fine pointer dog. As they went through the woods they bent over a sapling, to which they attached a snare and a piece of meat for bait, in hope of finding some game caught therein when they came back. Presently they missed their dog. Whistling and calling were of no avail, and so they tramped back to look for him. They finally found him in the snare, dangling several feet from the ground and almost dead from the choking. At a favorable moment he had left his masters and gone back for the meat.

**QUEEN AND HER PROGENY.**—My pointer bitch Queen has whelped eight pups—four dogs and four bitches (Jan. 14)—and they are as fine pups as you ever saw. They are three days old. I have disposed of all the dogs.

N. R. BAKER, Topeka, Kansas.

**NOTES FROM DETROIT.**—J. N. Dodge, of this city, received per express on the 15th inst. the stud basket or foot beagle dog Ringwood. He is white with black-and-tan spots, and is a perfect little beauty. Mr. Dodge's imported beagle bitch Dolly was visited on the 18th inst. by stud dog Italy, property of Gen. Rowett, Carlingville, Ill.

RED KIPUS.

—The champion and first prize bitch, owned by A. C. Wadden, now by the Kansas City Kennel, has whelped 8 pups—7 bitches and 1 dog, by St. Louis Kennel dog Sleaford. They are very fine.

KANS. CITY KENNEL.

**VISITS.**—B. A. Shapley's (Utica, N. Y.) field trial setter Bess, out of D. C. Bergundthal's Fanny, by his Rake, to Arnold Burges' Rob Roy.

THE COUNTRY.

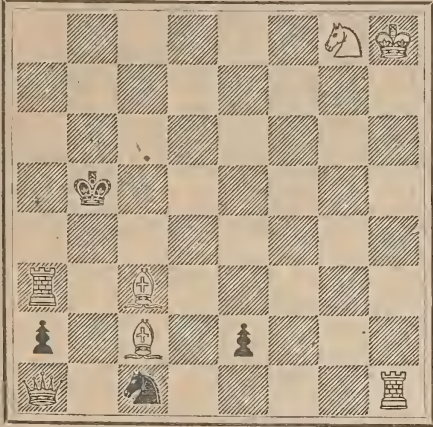
A weekly journal of sixteen pages, devoted to the Kennel, Shooting, Fishing, Fox Hunting, Archery, and other outdoor sports. Has also departments treating of Natural History, The Garden and Poultry, Pigeons and Pets. Edited by Wm. M. Tileston, late associate editor of FOREST AND STREAM. Subscription price, \$3 per year. Send stamp for specimen copy. Address, "THE COUNTRY PUBLISHING ASS'N," 33 Murray street, New York. —[Adv.]

The Game of Chess.

NOTICE.—Chess exchanges, communications and solutions should be addressed "Chess Editor FOREST AND STREAM, P. O. box 54, Wolcottville, Conn."

Problem No. 2.

Tourney set. No. 1. Motto.—Earnestly Advise Knowledge.



Write to play and mate in three moves.

Game No. 2.—BISHOP'S GAMBIT.

Table with 4 columns: White, Black, White, Black. Lists moves for a chess game, such as 1-P-K 4, 2-P-K B 4, 3-B-B 4, etc.

NOTES.

- (a) Q-R 3 we consider more advisable.
(b) The Queen is better placed at her own square, as the Knight can then be moved to K B 3 without incurring an exchange of Queens.
(c) By far more forcible here is: 7 Kt tks Kt, 9 P tks Kt, 10 P-Q Kt 1, 10 P-Q 4 or K-Q, 11 B-Q Kt 2, etc.
(d) A decisive error. He could have played here: 19 B tks B, 19 P tks B, 20 K-B 4 or, perhaps, on his nineteenth move, Q-R-K Kt.—Schach Zeitung.

The subjoined game is taken from the Handbuch:

Game No. 3.

Table with 4 columns: White, Black, White, Black. Lists moves for a chess game, such as 1-P-K 4, 2-Kt-K B 3, 3-Kt-K P, etc.

THE FOREST AND STREAM PROBLEM TOURNEY.

Recognizing the increasing favor with which this branch of the roya game is regarded we have decided to offer a number of liberal prizes for competition.

THE PRIZES.

- 1. For the best set. \$25 00
2. For the second best set. 20 00
3. For the third best set. 10 00
4. For the best three move problems. 5 00
5. For the best five move problems. 5 00
6. For the second best three move problems. 2 00
7. For the second best five move problems. 2 00
8. For the best problem entered in the tourney. 5 00

Each composer is invited to send in a two move problem accompanied by his photograph, the author of the winning position to receive as a prize all the photographs.

Problems will be judged according to the following standard.

BULL'S PROBLEM CODE.

- 1. Beauty and originality of design. 1 to 10 points.
2. Difficulty of solution. 1 to 10 "
3. Accuracy and elegance of construction. 1 to 10 "

RULES.

Competition is open to the world. All problems to be direct mates—that is to say, white to play and mate in two or three moves, as the case may be. All problems must be original and not hitherto published. Competitors may enter as many sets, or single problems as they please. Each competitor will affix a motto to every single set or problem sent in and also inclose his name and address. Competing problems will be submitted to the umpire, Charles A. Gilbert, Esq., who will report all unsound positions. American composers will be allowed four weeks in which to correct such positions; foreign composers being allowed eight weeks for the same purpose. Should the requisite corrections not be received within the time specified the positions will then be ruled out of the tourney. The tourney will be open to competition until the first day of July 1878, after which date the list will be closed. The prizes will be awarded within two weeks after the publication of the last problem. Address E. A. Kunkel, Wolcottville, Conn.

THE FOREST AND STREAM SOLVERS' TOURNEY.

This tourney commences with problem No. 1 and will continue until all the problems entered in the above problem tourney are published.

THE PRIZES.

- 1. Cash prize of \$10 00
2. " " " 5 00
3. THE FOREST AND STREAM for one year. 3 00
4. Cash prize of " 2 00
5. " " " 2 00
6. " " " 2 00

CURSORY JOTTINGS.

The games in the International Tourney are already well advanced and, judging from the games published, the contestants are generally playing extremely well, and with great care. The pairing of the several participants shows very good judgment on the part of the managers of this tourney, notwithstanding a few critics devoted to Mrs. Gilbert, the "Queen of Chess," being opposed to Mr. Gossip, a prominent English player. These aggressions are uncalled for, unkind and unjust to that lady, and these critics ought not to persistently ignore her record containing important match games won by as brilliant and sound combinations as correspondence play has yet spread upon the record, from players not inferior to Mr. Gossip in chess strategy.

Mr. Gossip's "Theory of the Chess Openings," it is announced, will soon be ready for delivery to subscribers.

Ajeeb, the wonderful automatic chess player, is quartered at Hartman's Hotel, in the Bowery. Our German exchanges, particularly the Schach Zeitung, pronounce it quite a curiosity, and to all appearances, an ingenious invention.

The American Chess Journal has passed into the hands of Messrs. Loyd & Moore, two of America's leading problemists, and will be issued hereafter from New York. We do not doubt but what they will make this chess monthly the equal of any now published.

The Hartford "Chess Circle," one of the largest and most influential chess organizations in America, recently engaged in the first telephone chess game on record.

Mr. Babson, formerly Chess Editor of the Boston Globe, recently announced in a blindfold game, wherein he stipulated to compel a self, mate with his opponents K. B. P., an extraordinary mate in thirty-three moves.

The grand consultation match at the Cafe International is still pending. Mr. MacKenzie and his associates have the advantage, having won two games.

Mr. J. A. Miles, Fakenham, Norfolk, Eng., is preparing a new edition, greatly enlarged and entirely re-arranged, of his "Chess Gems." The subscription price is fixed at 12s. 6d. per copy.

Mr. F. M. Teed, umpire of our first tourney, does not consider a supplemental award necessary, and we, therefore, follow the original award, whatever may be said to the contrary notwithstanding.

The chess editor of the St. Louis Globe-Democrat gives the FOREST AND STREAM chess column, etc., quite a notice. Thanks, Bro. Foster. Hallock, the late editor and publisher of the American Chess Journal, says in his new chess column in the Hannibal Herald: "We are pleased to learn that a chess department is to be introduced into the columns of that excellent journal the FOREST AND STREAM of New York, etc." We return the compliment: Hallock's new chess column fills two entire columns and is in capable hands. Mr. Peiter's notice in the Hartford Globe of the FOREST AND STREAM as "one of the most popular and respectable sporting papers," and friendly compliments paid ourselves, is appreciated.

Game Bag and Gun.

GAME IN SEASON IN JANUARY.

Hares, brown and gray. Wild duck, geese, brant, etc.

FOR FLORIDA.

Deer, Wild Turkey, Woodcock, Quail, Snipe, Ducks and Wild Fowl. "Bay birds" generally, including various species of plover, sand piper, snipe, curlew, oyster catcher, surf birds, phalaropes, avocet, etc., coming under the group Limicola, or Shore Birds.

MASSACHUSETTS.—New Bedford, Jan. 19.—A flock of wild geese flew over here this week, bound northward, from which one was shot. Sea fowl are plenty. CONCHA.

NEW YORK.—Shelter Island, Jan. 16.—The coot shooting, with battery, has been remarkably good in these waters this fall and winter, and I have enjoyed some sport. ISAAC.

NEW YORK.—Hornellsville, Jan. 14.—The shooting season just closed has been very fair, but I did not hear of a single quail being shot. John Penwell is champion hunter, having killed 118 grouse since Sept. 1; the last day he bagged 18. JOHN.

BUFFALO GUN CLUB.—At the annual meeting, held Jan. 8, the following officers were elected: J. E. Pierce, Pres.; T. H. Clough, Vice-Pres.; C. G. Strong, Sec.; Richard Edge, Treas. Board of Managers—C. C. Pickering, W. W. Ransom and W. H. Price. J. G. G.

SOUTH CAROLINA.—Charleston, Jan. 17.—During the last few days of fine weather, several fine bags of partridges have been brought in. On Monday a few of our hunting club, after a capital day's sport, brought home a fine buck; they report turkey very plentiful, but difficult to get at. There was a large and exciting fox-chase near Beaufort a few days since, and a few ladies joined in the sport. I trust that this good example set by the Beaufort ladies will be followed by all of our fair friends who have the opportunity of indulging in this fascinating sport, and I have no doubt that after a few rushing, ringing runs with the hounds, they will enjoy fully as much as we do the sweet music of a good pack, and feel that glorious, intense excitement as reynard on his last run bursts into view, closely followed by hound and horse. YENOTS.

James Mitchell, Fred Bivins, Johnnie Woodward, of Butler, Ga., went out squirrel-hunting the other day. Mr. Mitchell got into a rattlesnake's retreat and was bitten four times before he could extricate himself. There was a flask of brandy in the party, and after drinking the contents felt no inconvenience from the bites. Mr. Woodward, while attempting to shoot the snake, accidentally shot Mr. Bivins in the left arm just below the elbow. The snake was killed, and measured fifteen feet in length, with twenty-one rattles and a button.

TENNESSEE.—Savannah, Jan. 14.—Ducks and geese arriving in large numbers. Quail are getting scarce; turkeys and squirrels still plentiful. One gunner came in from a short hunt last week, with one turkey and seventeen squirrels. Owing to the extremely wet weather, we have heard of no large bags of wild fowl; there is too much water to the duck. However, I have killed several ducks in the cornfields while out shooting quail. WILL.

Huntingdon, Carrol Co., Jan. 18.—Yesterday the match quail hunt between Capt. S. W. Hawkins and Ernest Hawkins on one side, and Attorney-General Rice A. Pierce and T. A. Douglas on the other side, came off in this county, the first-mentioned parties hunting with two pointers (Tom and Bruce), and a boy to mark and pack, and the other side with one pointer dog and a boy to mark and pack. Result: Hawkins

and Hawkins, 66 quail and 3 rabbits; Pierce and Douglas, 83 quail and 3 rabbits. Can any backwoods sportsmen give a report of heavier bags? Capt. S. W. Hawkins used a twelve-gauge Parker breech-loader. The other used muzzle-loaders. NIMROD.

FLORIDA.—Lake City, Jan. 14.—The many lakes in the vicinity are frequented by thousands of ducks. Partridges are plenty in the old fields and the pine woods. T. B. R.

TEXAS.—Fort Clark, Jan. 10.—This post is 125 miles south of San Antonio. The bears, deer, turkeys, geese, ducks, quail, snipe, and brant make this a grand place for a hunter, and if the wily Apache would only let us enjoy it instead of hunting him all the time we would get more sport and more game. I saw a wagon load of turkeys sold last week at fifty cents each, all of which—twenty-six in number—were killed by one man with a shot gun in one night. We have some good dogs and good shots among our officers. Major McLaughlin, Tenth Cavalry, killed forty-nine quail with sixty shells one day last week. Lieut. Van Vliet, Tenth Infantry; Major Bliss, Twenty-fifth Infantry, and Dr. Shannon, U. S. A., are all crack shots, who seldom kill less than twenty-five to thirty in a half day's shooting—all wing shooting, of course. BUSHWACKER.

MISSISSIPPI.—Corinth, Jan. 22.—Sacked fourteen quails and one hare yesterday, in three hours, over Kate and Belle. Weather gorgeous, bright and bracing. Guido bagged sixty-nine quails yesterday and part of the day before, at Grand Junction, thirty miles west of this place. D. and Dr. P. sacked twenty-four quails and a hare or two on their way home, after hunting turkeys, Tuesday afternoon. GUYON.

TROUBLE FOR SPORTSMEN.—We cheerfully do our part toward giving to the subjoined warning a wider publicity than even the most sanguine of its authors could have expected:

Dunkirk, Harding Co., Ohio, Dec. 10, 1877.—Naber Hill, you have sum yorkers boarding with you that are trespassing on our Premises & if you Haat Hunting ground Anuff of your own you Had Better take sum of that Loos change you speak of so often & By sum or ship them to sum other Point for we Have no youse for them Hire & if We are Bothred with them any More you May expect your friends will get in trubel for we mean Bizness.

David Harigle, Samuel Taylor, T. Sullivan, B. Cotner, Jacob Younglove.

IOWA.—Algona, Jan. 8.—Mr. J. G. Smith, the agent of the United States Express Company at Algona, Iowa, is something of a naturalist as well as a sportsman. He has the finest collection of birds in Iowa, and during the past ten years killed more than twelve hundred wild geese, to say nothing of other kinds of game.

MICHIGAN.—Rabbit hunting is now a popular sport. Many of our sportsmen report good bags. RED RUFUS.

MARKET SHOOTING IN MASSACHUSETTS.—This is the record of the work of two pot-hunters the past season, as recorded in the Worcester Evening Gazette, of the 18th inst. Messrs. Geo. and John Stone follow shooting as a business and send their birds to New York:

Table with 3 columns: Month, Partridge, Woodcock. Shows counts for September, October, November, December, and Total.

Besides these 1,189 birds sent to New York, some few lots were sold in this city and some to private individuals from time to time, of which no regular account was kept. The men estimate these at about 250, making a grand total of between 1,400 and 1,500. The best days' shooting were as follows: Sept. 18, 30 partridge, 1 woodcock; Sept. 23, 30 partridge, 3 woodcock; Oct. 2, 34 partridge; Oct. 13, 27 partridge and 16 woodcock; Oct. 19, 32 partridge; Oct. 30, 36 partridge and 5 woodcock; Nov. 7, 37 partridge and 1 woodcock; Nov. 12, 38 partridge and 3 woodcock; Nov. 26, Dec. 10 and Dec. 24, 30 partridge each day. These were only the birds sent to New York. The poorest day's work was Sept. 27, 5 partridge and two woodcock. They were out 20 days in September, 21 days in October, 7 days in November and 6 in December, a total of 54 days, an average of about 26 birds per day.

COMBINATION JACK AND FISHING LAMP.—A recent visit to Bridgeport, Conn., when we had the opportunity of inspecting the Jack-lamps manufactured by the White Manufacturing Co., has convinced us of their great excellence. Former Jacks made by the company used kerosene. Now kerosene, though admirable in its way as an illuminating fluid, has the disadvantage of a disagreeable smell. The hunter using a Jack sometimes found that his hard-ckat or bacon, impregnated with hydro-carbon, was not as palatable as if flavored with Worcestershire sauce. Then again, kerosene cannot always be conveniently carried. To do away with a fluid lamp entirely has been long the study of the White Manufacturing Co. Quite recently they have used candles, and by means of a most ingenious arrangement a full supply of air is given to the candle so as to produce the most brilliant illuminating effects. The light is perfectly steady, and there is no overflow of melted wax. We should suppose it was exactly the light sportsmen would want, not only for shooting purposes, but for camp use. The White Manufacturing Co. tell us that they have disposed of quite a number of their special articles in Germany and Russia, and trace their sales entirely to their advertisements in the FOREST AND STREAM AND ROD AND GUN.

The publishers of Fur, Fin and Feather will send a specimen copy, containing all the game laws now in force, on receipt of 20 cents. Address Fur, Fin and Feather Publication Office, No. 149 Chambers street, New York.

GUN ACCIDENTS.—In Land and Water there is an excellent article on this subject, a brief analysis of which we give. A decrease in gun accidents is noted during the last year, which is attributed to the increased use of breech-loaders. The



Pacific Gun Club, Jan. 16.—The contest resulted in the following score:

Table with 2 columns: Name and Score. Includes names like T. N. Beruingham, James Minihan, W. H. Gillman, etc.

NOTICE TO SPORTSMEN.—Having received so many communications asking us for information in regard to our six-section bamboo trout, black bass, grilse and salmon rods, we have prepared a circular on the subject, which we shall take pleasure in forwarding to any address.

P. O. Box 1,394.—[Ads. ABBEY & IMBRIE, 38 Malden Lane

New Publications.

FARRAR'S POCKET MAP OF MOOSEHEAD LAKE AND VICINITY.—We have just received a copy of Mr. Farrar's new map of Moosehead Lake and the wilderness of Northern Maine, and unhesitatingly pronounce it the best map of that section of country, as well as the most correct, that has ever been issued.

NOTICE.—We have received the last two numbers of this monthly, notices of which, in common with several others, have been unavoidably left over. We shall make room for them next week.

Rational Pastimes.

CONVENTION OF AMATEUR ATHLETIC CLUBS.—A meeting of amateur athletic clubs will be convened at Knickerbocker Cottage, 456 Sixth Avenue, New York, next Wednesday evening.

INTER-STATE CURLING.—The Inter-State curling match for the Hamilton medal, between representatives of New York and New Jersey, came off at Haledon Lake, N. J., Jan. 19, resulting in a victory for the New York rink.

NEW YORK.—James Addie, New York Club, 35; G. Grievie, New York, 27; D. Foulis, New York Caledonian, 27; James Robb, Manhattan, 6; W. Symmers, Empire City, 29; S. McConelce, St. Andrew, 34; James Templeton, New York, 20; J. Madlam, Brooklyn Caledonian, 22; C. McKenzie, Thistle, 16; W. Kellogg, Yorkers, 33. Total for New York, 253.

NEW JERSEY.—James Stevens, Jersey City Club, 16; A. N. Horton, Paterson, 17; J. Dunlop, Ivanhoe, 28; R. Dowie, Paterson, 36; A. Phillips, Newark, 28; M. Thompson, Ivanhoe, 17; J. H. Van Houton, Paterson, 24; J. C. Bailey, Jersey City, 19; James Love, Jersey City, 33; George Faulhaber, Jersey City, 20. Total for New Jersey, 248.

SPLIT BAMBOO RODS

To our customers and the public:—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONBOY, BISSETT & MALLESON, Manufacturers, 65 Fulton Street, N. Y.

Answers to Correspondents.

No Notice Taken of Anonymous Communications. A number of anonymous correspondents will understand why their queries are not answered, when they read the lines at the head of this column. J. D., Dayton, O.—Retail price of Hazard's powder is 75 cents per pound. RIFLE, Newark.—I want a rifle for squirrel shooting or for deer. What calibre shall I use? Ans. 25. CONDOR, Boston.—We know of no better maps of Minnesota than those published by Colton & Co., 173 William St., N. Y. W. W. T., Pittsfield, Mass.—Has there been a new guide and map of Moosehead and Northern Maine published since 1874? Ans. Yes, just issued by Chas. A. J. Farrar. Address him at Andover, Maine. To HUNTERS AND TRAPPERS.—Persons contemplating hunting or trapping in any locality for a livelihood, will inclose stamp for information worth hundreds of dollars. Address H. Graves, Mount Vernon, Alabama. W. G., Newark.—A correspondent who sends us several puzzling questions, and at the same time, not only declines to comply with our rule requiring names to accompany, but carefully clips off his letter-head to prevent recognition, is certainly not entitled to a reply. J. L., Monon, White Co., Ind.—Do the standard works on ornithology say that ruffed grouse pair in the breeding season? Ans. The best works state that these birds do not pair. The males are said to be polygamous, and the intercourse between the sexes as promiscuous as among a lot of domestic fowls. W. R. K., Lebanon, O.—What is the best gun to take to Florida? Does "Camp Life in Florida" tell what outfit is best to take? Ans. We are inclined to recommend the Baker gun, which combines the rifle and shot-gun. See his advertisement in our paper. "Camp Life in Florida" tells you all you desire to know.

F. N. L., New York.—Where can I get the National American Kennel Club Rules, and how much would they cost? Ans. They have not been published in book form, but will be printed in the Kennel Register when that is issued, if it ever is. They were printed, with slight modification, in the Premium List of the New York Dog Show.

YACHTSMAN, Boston.—I do yachts have to obtain papers at the Custom House? 2. Where can I obtain circulars, etc., of the Woodruff expedition? 3. Is it (the expedition) going? Ans. 1. They do. 2. Address Daniel Mcanley, Esq., St. Nicholas Hotel, N. Y. 3. There is every reason to suppose that the expedition will start on time.

C. H. P., Plymouth, Mass.—Where is the best place for quail shooting in Delaware? 2. Where can I obtain crinoids, etc., of the Woodruff expedition? 3. Is it (the expedition) going? Ans. You can get no quail shooting at this season in any State nearer than Delaware. Live quail are hard to get now, it is against the laws of many States to trap them.

T. F. M.—Will you let me know in your next number where I can obtain a book or paper devoted to Texas lands, stating the price of lands, stock and everything regarding cattle, ranches, also the amount of money a beginner would need to start a cattle ranch on a small scale? Ans. Buy the Texas New Yorker, 28, 30 and 32 Centre St., New York.

AN OLD SHOOTER, Ellenville, N. Y.—Is there any difficulty in procuring central-fire shells (shot and metallic) at the gun stores in N. Y. city for breech-loading shot-guns of calibres 16, 18 and 20? Ans. You can get in paper shells, English, 4, 8, 10, 12, 16, 18 and 20 gauge. American paper shells are 10 and 12. In brass shells they run 8, 10, 12, 16, 18 and 20.

G. N. B., Delphos, Kansas.—Where heavy charges (110 grs.) are used in straight shells, is there the same trouble from a powder crust forming just in front of shell that there is with bottle-necked shells? or are the straight shells any better in that respect? Ans. There is no difference between the two shapes of shell, as to crust or in any other way.

F. S., Boston.—Would a setter be injured by being chained from 9 A. M. to 4 P. M. by not being able to urinate, or from other causes? Take my setter to the office in the morning and return in the afternoon and an obliged to keep him chained while there. Ans. The dog should undoubtedly have access to the open air a couple of times between the hours you mention.

J. A. B., Boston.—What is the meaning of a wen-like excrescence on the under side of the neck of an eighteen months setter pup? Dog lively and appetite good. Excrescence as large as a goose egg, feels as if full of some fluid and tense. Ans. It is impossible to dispose of such a case without personal examination. Send for a surgeon to pronounce upon the nature of the growth.

F. A. S., Honsdale, Pa.—My spaniel pup, six months old, is recovering from distemper. Have fed him on table scraps, little meat, but plenty of milk. Passed worms yesterday and had a fit. Will worms cause fits? I keep him in a place comfortable enough during the day, but cool at night. What shall I do? Ans. The fits were quite probably due to worms. Give the area nut and castor oil afterward.

H. C. S., Joseph.—In a double bird match the other day, the man at the score fired at the bird on his right, missed, and then killed it with the second barrel. Referee declared both birds lost. Was he correct? Ans. In a double match both birds must be fired at. The shooter having missed the bird on his right, he ought to have paid his attention to the other. The referee was right when declared both birds lost.

MOOSE MUFFLE, Andover.—Is there any other than Capt. Ayer's at Sinepuxent Bay which you can recommend to a sportsman? Ans. Yes. James B. Powell's hotel on the inland shore of Sinepuxent Bay about five miles from Berlin. He has boxes sunk on the Beach directly opposite the house, has a good sail boat, small boats and a fine stand of live decoy geese and most comfortable quarters throughout.

SECRETARY, Philadelphia.—Our club intends paying a visit to Betterton, Md., next season to enjoy the perch, which they say are very numerous and large. Can you enlighten us any on the above subject? Ans. Betterton is a very popular resort, and affords fish in abundance. Many Philadelphians go there every season. You can find out all there is to know by inquiring of John Kridler, cor. Second and Walnut Sts.

BACK-ACTION, Newton.—Could you tell me where to go next spring to get some good goose shooting not far from here? How would Canada, Conn., spoken of in the "Gazetteer" do, and in what month should I go? Ans. No geese in Canada. You will have to go to the Long Island coast for geese, say to Good Ground, or Peconic Bay, on South Side. We have replied, in a general way, to the question of mixing Dittmar powder.

J. A. D., Boston.—I, My Newfoundland, eighteen months old, barks at horses and vehicles. He knows he is doing wrong, but I cannot give him a thrashing when in the act. How shall I break him of this habit? 2. He ought to be old enough to care of himself, but he runs away from other dogs. Ans. 1. Punish him in any way and keep him tied up for a while. 2. He is too young to fight. With age courage will come.

E. G. B., Hillsboro.—1. Which make of shell do you think best? 2. Was—once of the firm of—E—? 3. Is the—as good a single breech-loader as any made? 4. What are the Draper shells worth per dozen, and who can supply them? Ans. 1. Respectfully decline replying to. 2. He was not. 3. An excellent arm, and stands very high. 4. Price is cents each; can be had in any of the gun material stores in New York.

GREENWOOD.—You will confer a favor, and set a mooted point at rest, if you will state through the columns of FOREST AND STREAM whether or no, fishing through the ice for perch in Greenwood Lake is legal, and, if so, during what month? Ans. The law as to close time applies to perch and bass alike. They cannot be taken from Jan. 1 to May 20. It prohibits any fish being taken, except minnows, bullheads and eels, for bait. Fine for violation, \$10.

J. F. A., Stafford Springs, Conn.—My Gordon setter has some disorder about the head. Dog eighteen months old. His ears are so tender that if you touch his head he will cry, and he keeps scratching them. There is an unpleasant odor from his head; otherwise lively and feeds well. Ans. Your dog has canker of the ear. Keep the ears clean by washing them with warm water and pour in daily a weak solution of lead water. Put a cap on the dog's head to keep the ears from been shaken.

W. S., Rouse's Point.—I have a B. L. gun, 34 lbs., 30 in. long, 12 gauge, choke; now, what will be the load for this gun to shoot 18 rods, etc.? 2. Where can I procure a book telling me of the different loads for different gauges? 3. Is a Chas. Webley gun a good one? 4. What is the No. of powder you would use in a breech-loader for general shooting? Ans. 1. You could not shoot 18 rods if you tried, at least, with a shot-gun. 2. Hallock's "Sportsman's Gazetteer." 3. No better gun maker. 4. Use F., or No. 6, Orange Lightning.

C. St. G. S., Bonneau's.—You say that a shell should fit chamber of gun. Bow long is the chamber of a \$45 Remington and what length of shell could be used with advantage? 2. Do the U. M. C. Co. make straw-colored shells of different lengths. 3. What precautions must be used in using Dittmar's powder? Ans. 1. Gauge 2-1/2, 10 gauge 2-1/2 brass. In paper 2-7/8 and 3 inches, because length must be allowed for crimping. 2. They make various lengths. 3. Too long explanations would be necessary. Must refer you to back numbers.

CONSTANT READER, Summit, N. J.—1. What kind of game is there near St. Paul, Minn.? 2. What kind of dog would one want for general hunting in Minn.? 3. Would a hound be of any use there? 4. Is the climate good? Ans. If "Constant Reader" would read with his eyes open, he would find his questions answered many times in our paper. One of its most conspicuous features at present is the series of Minnesota letters from the Editor. Climate fine; bounds, setters and pointers all used and useful. Deer, grouse, pigeons, ducks, geese, rail, etc.

C. R., New York.—Does a person require a permit to collect bird skins in New Jersey or New York States; if so, where can it be procured? What is the best work on taxidermy? Ans. The laws permit you to shoot for scientific purposes, but you must prove your intent, or suffer penalty. Cones' "Manual of Ornithology" and Maynard's "Naturalist's Guide" are the best works on taxidermy. For list of several hundred works on sport and natural history, see Hallock's "Sportsman's Gazetteer," published to save you the trouble of asking the questions you have above.

BUSKWACKER, Fort Clark, Texas.—Will you be kind enough to tell me the name and price of an instrument used to draw out shells when they stick—a pocket instrument? Also, the price of rubber boots for duck shooting, knee high, and also hip boots, and can they be sent by mail? Ans. Send to Dudley & Co., Pongkeepsie, or to Stoddard & Co., Washington, D. C., for carriage loader. "Dudley's" is the cheapest and simplest, \$1.50 to \$2; Stoddard's, the most complete and heaviest, \$8. Rubber goods can be bought of Hodgman & Co., 27 Maiden Lane; knee boots \$4.50, hips \$6.50. See advertisements in our paper. Cannot send over four pounds weight by mail.

H. P., Waterford, Maine.—Have a Scotch colley pup six months old. Has always been well lately. Food, mush and milk. Was taken with convulsions and frothing at the mouth. Breathes a little hard. Was better to-day. I gave him some milk; as soon as he drank it he had another fit. Must have had convulsions for ten minutes. Then got up and commenced to travel round and round. Has discharged worms. Is better as I write this. Will you tell me what was the matter and what to do? Ans. The fits were probably due to intestinal irritation produced by the worms. Give him some area nut followed by a dose of castor oil.

C. M. S., North Dunbarton, N. H.—Can you give me any information through your next about Florida? Whether I can find any shooting and fishing, and also what sizes of shot to take? Would a fishing rod which was made for striped bass be serviceable? What can I get good board for in the interior by the day or week? Ans. You will find the whole story in Hallock's "Sportsman's Gazetteer," or in "Camp Life in Florida," price \$3 and \$1.50 respectively. You can use hand lines or rod and reel, but shot or dust shot according to the kind of game you are after. Board from \$2 to \$12 per week, according to location and accommodations. Your fishing rod will answer well for very many kinds of fish.

C. M., Dauphin, Va.—To preserve autumn leaves follow the directions given by us some time ago: Procure some sheets of blotting paper, and place the leaves to be preserved between them—taking care they do not touch each other; then at intervals of about a half dozen of the papers lay either a folded newspaper or a piece of card-board. When all the leaves are arranged, place the papers containing them upon a smooth board, with another board on top, and upon that a heavy weight; let them remain in a warm room for a day, then replace them in dry fresh papers. Do this for a few times with autumn leaves, but oftener with ferns, etc., as there is more moisture in the latter, and you will have fresh-looking ferns and leaves as natural as if just gathered.

ERNEST, 203 Third Ave., N. Y.—1. Will it be possible for me to attend the meeting of the American Fish-Culturists Association? 2. Will the reports be printed? If so, when? How can I get one? 3. Give me the names and addresses of persons raising trout successfully for market? Ans. 1. Meeting open to all, and the association would be glad to make you a member. 2. Reports now in press. Apply in about a week to the Secretary, care of E. G. Blackford, Fulton Market. 3. Ira Smith, South Oyster Bay, I.; Gardner, Kittridge & Shorman, New Bedford, Mass.; H. F. Donseman, Fish Commissioner, Wis.; Levi Hayward, Gardner, Mass.; J. B. & F. W. Eddy, Randolph, N. Y.; Robinson Osterholt & Bro., Moscow, Pa.; Stone & Hooper, Charlestown, N. H.; Geo. F. Parlow, New Bedford, Mass.; D. B. Wesson, Springfield, Mass.

MEMOR, Medford, Mass.—I. Where can I purchase a good reliable map of Florida and the Gulf States? 2. Is the hide and tallow business very extensive in the States of Georgia and Florida? 3. Is there a book published giving the mode of building and the various ways of paddling a birch bark canoe? Ans. 1. Althorp's map, price \$1.50, can be obtained at the office of the Florida New Yorker, 44 Park Row, New York. 2. There is a large but scattered business done in hides, the principal being located in New York chiefly and the buyers traversing the States and picking up lots haphazard, or at stated depots. Very little done in tallow, though we don't see why not. 3. No book of instruction for birch canoe. Some information can be gathered from "Hallock's Fishing Tourist." Also, see full particulars for making them in FOREST AND STREAM, July 8, 1875.

E. L. McP., Scottsburg, N. Y.—1. Previous to last winter in the neighborhood where I live we always had quail, but being on npland and owing to the large amount of snow we had they were not able to survive the winter. We would like to get them back again, and on low lands three miles distant there are quail. Now, do you think if we should trap some of them, say in the latter part of this month, or in February, and put them out in our grounds in the spring, they would be likely to stay, or would they go back again to the low lands? 2. After trapping them, which place would be best to keep them in till spring, an inclosure made so that they can be on the ground, or a room in a building with plenty of gravel in it? 3. Should each pair be put in a separate apartment several days before putting them out in spring? 4. Which day does the close season on partridge commence, the first or second day of January? Ans. 1. We think that they would stay and breed with you. 2. The inclosure if it could be made vermin tight, but perhaps the room would be safest. 3. Yes, better so. 4. January 1. December 31 is the last day on which it is lawful to shoot.

E. P. D., East Orange, N. J.—1. I have a canoe, 14 ft. 3 in. long, 30 in. wide, and would like to know if putting an outrigger on it (as per plan) would hurt the speed any in sailing. I thought of putting it out about 6 ft. from centre to centre (see plan). The boat is a good sailer now, but have been told that it would bear more sail. The rig now is mainsail and jib; mainsail runs 4 ft. on mast, gaff 33 in., boom 5 ft. 9 in. long; jib runs 4 ft. on mast, bottom 45 in. long. 2. Now, I would like to know how much sail she will bear with safety, and will the outrigger hurt her speed? I want sail enough to make her a much faster boat. Ans. 1. An outrigger on a boat as small as your canoe would probably diminish its speed under sail one-half, and would greatly interfere with paddling. 2. The amount of sail your canoe will carry depends upon its stiffness, and as you do not give a diagram of its midship section, your question cannot be answered with certainty. If the canoe is a "Rob Roy" it has quite sail enough; while, if it approaches closely to the "Nautilus" model, you could carry a mainsail of 6 ft. hoist, 9 ft. leech 6 ft. boom and 3 ft. gaff. Judging from the present position of the mast, you would, with such a mainsail, need your present jib and another sail of the same size, set on a mast placed about 2 ft. 6 in. from the stem.



A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE INDOCTRINATION IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.

[POST OFFICE BOX 2332.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, JANUARY 24, 1878.

### To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts. Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HALLOCK, Editor.

T. C. BANES,  
Business Manager.

S. H. TURRILL, Chicago,  
Western Manager.

OUR OBLIGATIONS TO THE NEW YORK HERALD.—Our thanks are due to the greatest of American papers for the announcement given in their columns of THE FOREST AND STREAM AND ROD AND GUN gold medal for team shooting.

FIELD AND RIVER.—We specially commend the *Field and River*, a neat monthly journal, published at New Brighton, Pa., to our readers. Devoted to the woodland, farm and garden, and field sports, the general information it imparts is excellent in character. The *Field and River* is neatly printed, and is attractive every way.

MR. MATHER'S RETURN.—We are pleased to announce the return of Mr. Fred Mather, after an absence of three months, when he visited the principal fish culturists' establishments of England, France and Germany, as well as the most important aquaria. He has returned loaded down with notes (not bank notes) on the fish markets and fisheries of the Old World. We trust soon to be enabled to lay before our readers the results of Mr. Mather's experiences.

THE "AMERICAN AGRICULTURIST."—Some years ago the *American Agriculturist* gave to each of its subscribers a sample of sorghum seed, and the result was that the face of the country was soon covered with fields of sorghum. Now it donates a \$1.50 microscope of thirty-six magnifying power to each subscriber, and we've no doubt that all the minute things in earth, air, and water will now be investigated. We believe the *Agriculturist* has something like 120,000 subscribers; we therefore leave it to our readers to imagine what an impulse will now be given to science. More than this, what a stir will be excited among the squameish, whose curiosity will prompt them to examine into everything they eat, or drink, or use. We anticipate a panic among the grocers. We have used microscopes all our lives and never saw one nearly equal to this at double the price. So the person who subscribes to the *Agri ulturist* for \$2 will get much more than the worth of his money.

### SCIENTIFIC NOMENCLATURE.

THERE is among outsiders, and among many who want to be regarded on the inside in matters of natural history, a great misconception with reference to scientific nomenclature. It is made evident in the apparent idea that it is an affectation to use the terms, and also in the habit of deploring the continued changing of scientific names. The self-exalted specialist is careless and derisive of the ignorance of the public in the matter, and will not condescend to explain:

"They could not understand—oh, never!  
"Tis something eminently Greek;  
"Tis something intricately clever."

Did not Agassiz, in the estimation of many readers infallible, call the big-mouthed black bass *Grystes nigricans*; thereafter, Gill, the accurate, establishes his name as *Micropterus nigricans* (Cuv.) Gill; and, later, Mr. Goode bows to the Professor's suggestion, and would have us drop this name far down the page, among the synonyms, and place at the head *Micropterus Floridanus* (Les.) Goode. Then, Professor Cope offers the opinion that Lacepède's reference to *Micropterus* is most absurd, and suggests that Rafinesque's *Callieurus*—which interpreted is beautiful tail—be adopted. Now comes Jordan, ferretor of old lore, and points out to the Professor that that erratic enthusiast of the early part of the century, Rafinesque, had described the bass as *Lepomis pallida*, the Professor yields and *Floridanus* is demolished—*Lepomis* has already been squelched—and *Micropterus pallidus* (Raf.), Gill and Jordan, is the next ten-pin which invites the bowler's aim. If we refer to a paper by Theodore Gill, "On the Species of the Genus *Micropterus* (Lac.) or *Grystes* (Auct.)," we find seven stately classic binomials, used in all some eighteen times by twelve authoritative writers since 1828, and all knocked into a cocked hat in 1873.

All this time—he began early—Seth Green goes on calling him "Oswego Bass," with high contempt for "the literary fellers" and their mouth-wranching names. He knows what he means; can tell him at sight anywhere, and can even stand on his feet before the audience of "fish-sharps" at the February meeting, and stand the cross-fire of questions from the famous ichthyologist, and hold his own without confusion; doubtful, in fact, but that "he held the fort" after the battle ended. The point in dispute was: Whether both species, black bass and Oswego bass, *sic* Green, and *Micropterus salmoides*, and *Micropterus nigricans*, *sic* Gill, were both found, as asserted by Seth, north of the great lakes in the Dominion of Canada. The fun for the audience was something like that afforded in reading Mark Twain's recital of the colloquy between Scotty Briggs and the minister when he went to ask him to preach Buck Fanshaw's funeral sermon.

Why is not good English sufficient, and what is the use of scientific names? *Strongylocentrotus drobrachiensis*; speak it resonantly and see if your mouth doesn't feel as if a cross-cut saw had been drawn through it; and yet these names have been coined by hundreds; so that, a certain scientist claims, that, besides the ordinary vocabulary of a few thousand words which an educated speaker of English uses, he has an additional lot of twenty-thousand scientific terms. You might naturally expect him to have the bronchitis.

Professor Baird, in his reports, has shown us something of the confusion prevailing in common names as they are applied along the coast. Now take the word salmon. The definition given by Webster is "A fish of a yellowish red color, of the genus *Salmo*"; it is found in all the northern climates of America, Europe and Asia." Then a fair wood-cut, with the word "Salmon" beneath, and a few lines describing habits, weight and food qualities. A meager enough definition, and, at least, partially untrue. The appended note indicates to those who know the species, that it is intended to apply only to the salmon of the rivers of Scandinavia, Great Britain, the Rhine and the rivers of the east coast of America east of the Housatonic. This is the fish entitled to the name, by priority and long possession. But go to the rivers of the Pacific coast, to the streams emptying both sides of Bering Sea, to Kamchatka, Siberia and the north coast of Europe. If you do your duty by the rest of us you will correspond for FOREST AND STREAM and tell us all about the fish you see and angle for. Suppose you should be limited to the word salmon for such of the genus as should not come under the nearly-equally diversely applied terms of trout and salmon-trout, and imagine the impatience and disgust of the men of the rod, to say nothing of the lofty contempt of naturalists and amateurs at your motley assemblage of little and big fish, of rank and oily with toothsome kind, and of many which the art of Conroy and McBride couldn't tempt to "rise to the fly."

But, worse still, you shall go to the Ohio River and its tributaries and buy salmon, and you will be furnished with wall-eyed pike, glass-eyed pike, yellow pike-perch, dore, pickeler, pike and jack; thus I am enabled, by the use of these names, to make clear to the dwellers in different parts of the country the one species meant. But, says the Lake Erie man, the trouble is they call the fish by its wrong name; let them learn to call it (?) "pickeler."

Now, you may go to the Carolina coast, and they will sell you all the trout you wish, and deliver to you squetague, chick-wick, weak-fish, blue-fish, salt-water trout or smmter trout. With this list of names I am enabled to make evident to the residents of New England, New York, New Jersey and of the coast southward the single species of fish I refer to, which the South Carolina fisherman, in good faith, has sold

you as trout. Why don't they learn to call it properly the weak-fish, says the New Yorker.

Did you ever see the indignation, too deep for words, when you tell the aged, local authority on piscatorial questions, "That isn't a herring, it's an alewife; herrings never come into fresh-water." You are apt to appreciate the isolation of Crusoë's desert isle, as the old gentleman walks silently off and leaves you alone on the shore. Now you might have told him it was a *Pomolobus pseudoharengus* and he'd willingly wait to see what kind of a foreigner you were; but, to dispute this absolute fact, which every child and nigger has known from the time of General Washin'ton's fishery to the present, and to tell him that it is an *alewife*, when he knows that the moss-bunker, the pogy, the poghaden, the panhaden, the hard-head, the skippaug, the bony-fish, the menladen, the bug-fish, the white-fish, the fat-back, the yellow-tail\*—now you will all know the fish I mean from Massachusetts to Albemarle Sound—is the alewife, as well as he knows that his wife's name is Hannah, is too preposterous, and, in fact, impudent. So that if the scientific name had no other value, it might be of some purpose as a sort of pacificatory compromise between sectional prejudices for old names. But the naturalist will explain to you that its precision, *sic*, as applied to the one species of fish, is a matter of importance, and that the naturalists of all nations know immediately what you refer to. And then he would tell you that the relation of this species to the whole series of animal life was to be traced from the name given to the genus, the family which comprised this genus with other genera, and the order in which was grouped this family with other families, and the class which embraced this order with other orders, and so on to the animal kingdom, which, with the vegetable kingdom, takes in all organic life, and is, in this general group, to be distinguished from the mineral kingdom. Then he might explain how to his voluminously stored mind came up, at the inspiration of this name, the points of structure, the embryological history, the geographical distribution, etc., all of which, to the thorough student, it might actually do.

The point of objection is, however, to the continual changing of the names. Many popular writers, appreciating the advantage of precision in the scientific name, at the cost of considerable trouble and labor, get the accepted scientific names fixed in their minds. To discover, a short time afterward, that some acknowledged authority has revised the nomenclature, when they have just settled themselves confidently in the assurance that they have mastered the matter, and are prepared to edify their friends in print or speech, with lumps from the dead languages, is exceedingly annoying.

Now, this matter of change has occupied the minds of the scientists for a great many years, and grave sessions of the British Association of Science, and of the American Association for the Advancement of Science, have sat in serious convocation over the questions which it involved. Printed copies of their decisions have been sent abroad, prescribing the restrictions under which the changes are to be made, meeting with acquiescence from many, and exciting dissension among others.

But there are many who want to know why there should be any change at all. To begin, where the Irish philosopher said all beginnings should be made, at the beginning, there are exact sciences, but zoology is not one. It is not as inexact as metaphysics or theology; but its truths do not receive their positive fixity in a few years or an age. It is rather a progressive science. Now, I am not going to analyze the methods of Aristotle, Linnaeus and Cuvier, and bring the stages of progress up from the time Adam gave the animals common names in his zoological garden. But it is clear to all that in those branches of science relating to zoology we know more and more from generation to generation. In anatomy, physiology with regard to form in all its variation, to color in all its gradation of tints, as to the extent to which any species exists over the country or world, and also, the possession of numerous specimens of each species and variety in our museums, greater advantages are afforded to the student almost in each successive year. The generalizer of one age takes into consideration all the facts the fact-gatherers have accumulated, and writes out his system and theory; but these fact-gatherers in science are the most industrious men alive. There is not daylight enough in a day to satisfy them, so they work on into the night. The facts accumulate continually in the form of stuffed skins, of alcoholic specimens, of skeletons and anatomical preparations, of recorded notes on the embryological period of life found under the tube of the microscope, of notes on the anatomy and physiology of animals found in dissection and vivisection. So that soon the work of the former generalizer upon a meagre collection of facts is found faulty; and now Owen and Muller come forward and leave Cuvier's system a thing of the past, which has served its day, while Huxley, later, declares his discoveries, and Owen is honored only for what he has been, while Darwin proffers his theory to stand the test of the accumulating evidence of to-day and the future. This is the higher walks of scientific truth-seeking. But to get back to the question of name changing.

Peter Kalm, the traveler, and Gordon, the naturalist, collected in the United States and sent specimens to Linnaeus in the middle of the eighteenth century. The species differed entirely from the forms of the old world which Linnaeus had around him, and in his later editions, at least, he gave and published names to the genus and to the species the binomial term, which the naturalists agree shall be the only one recog-

\* Called also hysch and gasperau in Nova Scotia.—Ed.

nized. In few cases would he have more than one specimen of a species. Cuvier was supplied by travelers and residents in the United States. And about the same time came Lesueur, Rafinesque, Dr. Mitchell, Audubon and Wilson collecting and naming, when the mink, the common crow, the leather-back turtle and the brook trout were new to science. From Linnæus to the middle of this century a very large number of species, or supposed species, were given names. Now, in order that those names should stand, several things were requisite pertaining to the animal—its genus, species or variety. The name which comes first—the generic name—under which certain species, having structural characters in common, are collected into a group, must have received its final limitation. All the forms related to it are to be studied and the decision made that all the members of the group are sufficiently homogeneous and related in their character to be retained together under the name of the genus; if not, it must be divided into as many groups as seem natural to the judgment of the student, and new generic names established. The species are re-organized under their respective genera; the old name is left attached to one or more, as the case may be, but the rest drop it, and the new names precede their specific titles.

Next, a prolific cause for change is the identity of species. This involves the apprehension of the term species, which presents itself to the mind of each naturalist, and of which there is no acknowledged universal definition. It is well established that different geographical regions possess forms varying only slightly from similar forms in other regions, but so apparent that they are readily distinguished. The practice with some naturalists is to regard these forms, if the characters are constant—that is, found to exist distinctly in all the specimens in each group respectively—to constitute their different species. But, if the extreme types are found in a series of specimens, however considerable, to imperceptibly grade into each other, they are then termed races or varieties. Now, it has been the case that two strongly characterized forms have been found, from separate localities, and, without hesitation, made separate species. In the course of time specimens from intervening regions are collected, and, finally, a chain of gradation is established, and, of course, the later established species loses its distinguishing name and is known under the common term applied to all.

Again, all this establishing of species depends for its accuracy and permanency upon the very variable amount of ability and judgment in the different naturalists. A careless, or credulous, or over-sanguine, or easily persuaded man, may make many species where there is little foundation for one, as in the case of Dumeril in the sturgeons and in the gar-pikes. The conscientious worker, in later studies of the same group, must reduce the names to the position of mere synonyms of the prior name applied to the species.

This suggestion of priority now brings the other principal cause for changes, research through the literature; the study of all the previous authors who have written up the species; the careful sifting of their descriptions, to determine what species they have had in hand, and to which they have applied the name; and then, after conclusions are made, to affix the name having priority of date, and to reduce all others, no matter how extensively used, to the character of synonyms.

A late student of the *Salmonidae* thought he saw the necessity staring him in the face of throwing aside the accepted name of the brook-trout, so long used and liked, and familiar in the pages of American authors on field sports. *Salmo fontinalis*, has it not a pleasant sound? You can scan it like a line of Virgil. This vandal proposed to give us *Salmo omisomaycus* in its place, because a Dutchman named Walbaum—and a very poor naturalist he was—described a small *Salmo* with spots under this name in 1793. He decided in the end that Walbaum's fish was a smolt, the young of *Salmo salar*.

In the plants of North America and Europe this changing of scientific names seems to have nearly reached its limit. In the classes of vertebrates there will still be many changes, as varieties, species and genera become better understood, and the priority and correct application of the older authors' names become known.

You now see that it marks the progress of science, and you will hereafter have the satisfaction, as you see these "household words" disappear, of knowing that science is advancing.

RUNE.

## THE NATIONAL RIFLE ASSOCIATION.

The steps taken by the National Rifle Association to increase the representation given to the Army, to State military associations and to affiliating clubs, instead of being appreciated as a concession, appears to have opened the way to fresh assaults. It would be difficult to find any logical reason for the course. Why the gentlemen, who for the last six years have so unsparingly devoted their time and money to create a public interest in rifle shooting, should all at once be discovered to have lost all right to continue to represent American riflemen is a mystery. It is not that they have failed in their efforts, because all concede that it is through their exertions that American riflemen and American rifles now lead the world. It is not from any failure upon their part to support the honor of our country, for our visitors have united in praising to the echo the fairness and hospitality with which they have treated and entertained them.

The only reason to be gathered from the published criticisms is that they have not seen fit to implicitly follow certain newspaper suggestions, and turned over all their powers to a convention composed of delegates from the different rifle

clubs in the United States, or acquiesced in a scheme for the formation of a body, to be composed of delegates from each State, with the General of the Army at its head, having a grand central range at Louisville or Cincinnati, at which all international or inter-State matches should be shot, to the exclusion of Creedmoor.

It may perhaps be that the six-years' practical experience of the present managers of the National Rifle Association has failed to give them that knowledge of rifle matters which is possessed by their newspaper critics. It would also perhaps be asking too much to expect that any gratitude or acknowledgment of their services should be expressed by those professing to be champions of rifle practice for their unselfish exertions to advance that cause. Yet it might be expected, in the interest of gentlemanly and sportsmanlike feeling, that their conduct might be discussed without referring to them as a "ring" or a "close corporation." That this has not been done is however but another instance of the ingratitude of republics.

After a careful examination of the plans proposed, it is clear that the gentlemen of the National Rifle Association have given another instance of their common sense in declining to adopt them.

The idea of the new association, headed by Gen. Sherman, with directors from each State, is magnificent—on paper. Considered practically, it is a humbug. As the *Chicago Field* rightly said, "We are a nation of plain business men, and should cut out our national associations of plain, practical, business-like stuff." To manage a rifle association, to operate a range and to carry an international rifle match to a successful conclusion, is a business. It requires from those undertaking it thorough familiarity with many details, only derived from practical experience and constant, unremitting attention for several months. It needs a large corps of trained markers, scorers and clerks, and large and expensive plant, none of which can be improvised; and, above all, it requires a great deal of money.

During the arrangements for all the international matches, the officers of the N. R. A., though prominent business men, met weekly for months to perfect them, while the sub-committees were at work all the time. In fact, many of the officers gave up their usual vacations to attend to their duties. Even with this spirit of self-sacrifice the work was greatly interfered with from the difficulty of getting a quorum together on occasions of emergency. The expenses of receiving and entertaining the foreign riflemen of 1876 were over \$8,000, and the association was left \$2,000 in debt. The expenses of the last match were about \$5,000. The total receipts and disbursements of the National Rifle Association during 1877 were \$36,000, and yet it was only by the most judicious management they squeezed through the year with a balance of \$26. This, of course, does not include the expenses of the private hospitality extended to the visiting teams by the directors and members, individually, which were very great.

That their duties would not be, could not be, performed by such an impractical body as is contemplated in the proposed scheme is too self-evident to bear contradiction. It would only be by a miracle that they would be got together, and they never could be kept together long enough to accomplish anything.

The idea of a central range is no less absurd. Where is the money going to come from to erect it, and how is it to be supported? Outside of Creedmoor there is no range in the country fit to be used for such a contest as the Centennial or the *Spirit of the Times* Matches. To procure and fit up a new one near any large city would cost from \$10,000 upward. There has been over \$50,000 spent on Creedmoor, while the Rochester range cost \$3,000, and that at Buffalo \$15,000. Outside of the State of New York, with the exception perhaps of California, is there a range in the United States where the prizes offered at any meeting exceeded \$1,000 in value, or where there have been as many as fifty entries in any one match? It may be said that Wimbledon is only a temporary range, but that argument does not apply. While that range is not shot over all the time, it is not used for any other purpose. The butts and targets remain, and all that is required at each meeting is to get things into working order. To do this the British N. R. A. have a trained staff of paid officials and the aid of all the regular troops they need. Above all they have plenty of money, their surplus being nearly \$100,000.

Does any body imagine that in these hard times the necessary funds can be raised to erect a range simply for international matches, or the selection of a team? If it could, how would it be supported? If those in favor of this plan will refer to the report of Col. Wingate, the General Inspector of Rifle Practice, of New York, they will see the experience of twenty ranges of that State summarized in the statement "that it is to military shooting that a range must look for its support." And what is the experience of New York will be the case elsewhere. It requires a large number of competitors to support a range, and these can only be obtained from the military. This question of military shooting is the vital point in the whole controversy. We must recognize that the National Rifle Association is founded to encourage that kind of shooting. Long range and other descriptions of rifle practice are undoubtedly valuable as adjuncts to aid and develop public interest—but they are merely adjuncts. Whatever aid Congress may extend toward rifle practice will only be granted so far as its military features are concerned, and the same will be the case in the different States.

Any range, therefore, which is to be national, which is to

occupy toward the National Guard of the Union the position which Wimbledon occupies to the British Volunteers, must be located where it will be most accessible to the greatest number of the National Guard, or where the prizes are more attractive than are offered elsewhere. The only States where National Guards know anything about shooting, at the present time, are New York, California and Connecticut. The first has 20,000 men who are regularly trained and who resort to Creedmoor as competitors, and the riflemen of Connecticut come with them. No association can afford to spend more for prizes than comes back to them in entries, except such as are donations. But with this support the N. R. A. are enabled to offer a prize list which no other range not having a similar number of competitors can afford. The number of competitors in turn produce the best shots and make the honors of victory greater. It may therefore be assumed that, as British riflemen from Australia, Canada, Ireland and Scotland congregate to Wimbledon to compete against each other, American riflemen will inevitably resort to Creedmoor; and any attempt to build up a rival range or a rival association will be impracticable, until, at least, some State shall organize a larger force of riflemen than are to be found in New York and the neighboring States to serve as a foundation for such an position.

We must confess our inability to see why the action of the N. R. A. has not been generous in the extreme in regard to affiliating clubs, and riflemen in general. The \$25 affiliation fee just pays for the medal presented affiliating clubs, the printing of their scores in the annual report and the publications furnished them, and the privilege to use the range is given, without compensation, to all their members. The only reason why the amendment making their Presidents life members was rejected was a dispute as to its language. This is now being rectified, and will shortly be passed. This, however, was not necessary. If an affiliating club or any rifleman desires a voice in the affairs of the N. R. A. they can have it. Any club can make every one of their members life members of the N. R. A. by simply paying \$25 each. As the highest number of votes east for any director at the recent meeting was but fifty-six, it will be seen that ten clubs having six live members each could elect whom they pleased. Surely it cannot be expected that they are to control the association without contributing in any way to its maintenance, or that they are to have more privileges than the regular life members, which would be the case if they did not make this payment. If it be too much trouble to go to New York to attend the annual election, would it not be just as much trouble to attend a convention? In increasing the number of honorary directors the N. R. A. have given a voice and vote to the army and to each State. They have also provided for the election of those whose services in the cause of rifle practice may entitle them to this distinction. It is said that this amounts to nothing, because these honorary directors will not attend. If they follow the example of the critics who have published the adverse views now under consideration they undoubtedly will not, because these gentlemen, though both honorary directors, never attended a single meeting at which the proposed amendments were discussed or offered a single suggestion upon the subject. It is to be hoped, however, that they will pursue a different course.

The advocates of a convention are scarcely more practical in their ideas than those of the "Grand Central" Association. A convention is cumbersome and unmanageable. Moreover, it would be a failure. Such a convention was called by the N. R. A. on Feb. 1, 1876, to be held during the spring meeting in May, and was only attended by the representatives of a few local clubs, who were picked up on the field. By the terms of affiliation another was to be held at the spring meeting of 1877, and but a single delegate appeared, and it was postponed till the fall meeting with the same results. This is only what might be expected and what would certainly result if another should be called. The interest in rifle practice is not sufficiently great to induce any one to go very far out of his way to attend a meeting of this description, and it is extremely doubtful if a single one of the clubs whose officers have written in favor of such a meeting would send a delegate 500 miles to attend it if it should be called. This is shown by the history of the Sportsman's Association and similar organizations.

When the rifle movement attains sufficient strength to induce the present scattering and disunited clubs to establish a solid organization in the various States, then such a project will be practical. The fact that there is no such an organization in a single State outside of New York shows that the attempt to constitute a national convention is premature. The Northwestern Rifle Association is a striking example of this. It was started some two years since, with the intention of bringing together the riflemen of Chicago and the Northwest. How many meetings has it had, and with what success? Let us look the matter fairly in the face. Substantially all the correspondence that has been published is from the various long-range rifle clubs scattered through the country. Is there a single one of them that has fifty active members? We know of none. Look over the reports of the various club matches published in our files. Do they average over a dozen competitors? Even at Creedmoor, with the stimulus arising from the great International Match, with the galaxy of riflemen attending the inter-State matches, and the fall meeting of the N. R. A., the magnificent prize so generously offered by the *Spirit of the Times*, and aggregating \$1,500 in cash, attracted but seventy-eight competitors, and these included the foreign teams. For the Wimbledon Cup

there were but thirty entries, while the military and short-range matches had about 200 entries each.

How idle then is the attempt at the present time, when rifle shooting is in its infancy, to overturn the organization which has created all that we now have, and to substitute—we know not what.

Let us rather unite to build up and strengthen the National Rifle association, by creating in each of the States an association of a similar character, by developing State and inter-State matches, by bringing in the military element to support the ranges throughout the country, to increase the interest, and to entitle the various associations to claim from Congress and their respective States that assistance which is necessary to make them successful and popular.

#### VACATION RAMBLES IN MICHIGAN, WISCONSIN AND MINNESOTA.—No. 12, Concluding.

By THE EDITOR.

BRETHREN: By referring to my preceding letter, you will find mention made of a firm, (actively engaged in the rolling business in Minnesota,) under the name and title of "Titans and Son, of Anak."

Some ethnologists incline to deny the existence of any survivors of this ancient family so conspicuous among the giants of the early periods, and kindly called my attention to the *Anakronism* when I was reading the proof-sheets. Not being infallible in historical reminiscence, I assented to a correction, and by marking out the comma between the words "Sons" and "of," (the text originally reading "Titans and Sons, of Anak,") I complacently sent the proof-sheets back to the printer, satisfied that wrong had been made right, and that history would be verified. The printer, however, instead of erasing the comma, simply struck off an "s" thus decimating the family of Titans without disturbing their genealogy. Of course I was surprised; but having been taught by twenty-six years experience as a journalist that compositors are censors in literature, I concluded to accept their dictum and suppress my rising chagrin. And I now write to congratulate my Minnesota friends upon having the descendants of so ancient, honorable, and industrious a family in their midst. I trust that the line will continue so long as there is a standing stick of timber left in the State upon which an *ax* (Anaks) may feseend!

I have great reason to be proud of my Minnesota friends: "for once, upon a raw and gusty day, troubled [Mississippi] chafing with its shores," "having plunged in, accoutred as I was," by instigation of my comrade, Dr. D. Cæsar Estes, and "swam to yonder point," etc., (as you will find by referring to Richard Grant White's new version of Shakspeare,) I found myself standing nude, destitute, joyless, and apart, in a chamber of the Merchant's Hotel, on Third street, St. Paul, waiting for my clothes to dry and a clean shirt to arrive from the haberdasher's. Ministering friends were rubbing with crash towels my chilled limbs which a long immersion in the river had stiffened, and while some ran my credit at the furnishing and shoe stores, others administered spiritual restoratives.

The situation was this:

Some four hours previous, two of us had started on an excursion down river in a clinker-built sprit-sail skiff, which was as cranky as a dug-out, and twice as assuring. It was the 19th day of September, and we designed a several days' trip, intending to beat the islands and shores for woodcock, snipe and duck, fish in the river for muskallonge and bass, and possibly wait for a deer in some of the bottoms where sign was conspicuous. Besides having impediments in the shape of a complete sporting outfit, as the Doctor and myself both had, and a large dress wardrobe of my own, our St. Paul friends had provided many luxuries which were carefully stowed in the caddies and lockers. Wraps, rubbers, blankets, overcoats and tent, were housed under the decks, stem and stern; guns, rods and oars were made snug under the thwart; valises, boxes, and heavy articles were placed squarely awaist; and the craft was trimmed with care and circumspection. With the mast unstepped but ready for use, we bade adieu to our friends on the levee and launched out on the broad river, the wind puffy, and the current running four knots an hour. A couple of miles below town it scooped out a big black hole sixteen feet deep, piling up the sand on "Pigseye Bar," as the pilots term it, and setting back in an eddy from a high bluff at a sharp bend in the river. We had scarcely got under way before we ran the skiff ashore and made sail on her, thinking she would bear it; then we pushed out into mid-stream again and—capsized!

I have never cared to investigate the cause of the disaster, lest I should place the blame where it should not rest. As the doctor said of a patient, I'm inclined to believe that "death resulted from a complication of diseases." The tableau, as I recall it, while swimming for shore in my encumbering corduroys, was a dissolving view of parcels floating off down stream and the doctor astride the overturned boat, calm, and buoyant in the vain hope of sculling the water-logged wreck to *terra firma* with a setting-pole! He had gallantly grabbed his gun as the boat went over, and with this sole relic on his lap, there the three were—the boat, the doctor and the gun—helpless, powerless, soaked, and useless. The mast-head stuck to the bottom, the doctor stuck to the boat, and the wet cartridges stuck to the gun; neither could get off. As the wreck gradually worked its way down stream with the current, I followed along shore, lugubrious and bedraggled, like some lone mourner at a funeral, and the only

attendant at the wake (I mean the wake of the boat). Finally, a tramp opportunely came plodding along the riverside, and cutting a long grapevine, he held one end, and I wading into the river with the other managed to reach the doctor's setting-pole: and so, with a long, strong, and united pull, we dragged the cranky craft to land and baled her out. Then we realized that we had suffered a baleful catastrophe. Little was saved except the equipments of the boat: only a rod-case containing a trolling rod and a Conroy-Mitchell bass-rod, and a big rubber bag, the tried companion of many travels, filled with old cast-off clothes and trifles of no value. An inventory of my own kit discovered a loss amounting to \$900, and the doctor's outfit was possibly \$300 more. Nothing was ever recovered.

Waiting patiently in my hotel room, as I began to say, after a walk of some two miles back to town, (the tramp meanwhile poling the boat up shore to the landing), I was gradually rubbed and limbered into form, and enrobed in new garments which Solomon might have envied. One of my most assiduous friends was Col. Allen, the hotel proprietor. He had pried into the rescued bag as soon as it arrived, and chancing to find a half-dozen soiled shirts, considerably ordered them to be sent to the laundry and returned in prime order with all possible haste. Never was an order executed with more alacrity or precision. Never was a lot of such worn, torn, and begrimed clothes, long discarded as apparel and assigned to cleaning guns, binding wounds, wiping dishes, and such like services in camp, restored to pristine purity in so short a time. No washing powders as yet popularly known, ever eradicated dirt with such celerity. Never were spotless ascension robes of Latter Day Saints ever substituted for the foul habiliments of their casting off with such comfortable and satisfactory dispatch. How beautiful the vestments appeared in their resurrection! Shirts minus their flaps presented only their immaculate fronts to the eye. Veterans which were sleeveless would have passed the scrutiny of a recruiting sergeant. Buttonless or bosomless, dismantled or curtailed, all put their best side foremost and invited the admiration of the crowd. And good Col. Allen privately rubbed his hands together with the complaisant satisfaction of one who has bestowed a blessing. It was unkind in the boys to dissipate the pleasing dream!

By the time our full toilet was completed a capital dimer was announced. Its conclusion was followed by congratulations, mingled with regrets and mutual pledges. The old salt-water dirge was sung in all its fervor, saturated with appropriate brine, concluding with the following stanza:

"Three times around went the gallant little ship,  
Three times around went she;  
Three times around went she;  
Three times around went she;  
And she sank to the bottom of the sea, sea, sea—  
And she sank to the bottom of the sea."

Just here District Attorney Chris. O'Brien happened to remember that I was penniless, and satisfying himself that my octogenarian relatives were well-to-do, proffered a temporary loan of \$10 until I could make a draft for funds. Col. Uline and Doc Warner sang "Auld Lang Syne," and the party adjourned to meet at the trap range the day following.

Such is the tersely-told story of our grief.

The festive days enjoyed in the vicinity of St. Paul will bear a long remembrance, clinched as it were, by our complementary duck hunt at Rice Lake, whose "passes" have been made famous by their holocausts of slain. Lakes are joined to lakes by marshes filled with succulent rice, to which the mallards, teal and wood-ducks resort for food in large numbers, the gunners taking their best opportunities in their morning and evening flights, as they pass to and fro. There are rails, also, in quantity, but as they are seldom in good flesh, are little heeded. Some Wilson snipe are picked up betimes, and in the woods ruffed grouse abound.

Near the close of the month, when I set my face Eastward to return to office duties, Brother Ohandler handed me a pass over the Chicago and Milwaukee Railroad, with the terse injunction to stick to the cars if I wished to reach home without accident. The ride down the Mississippi Valley, through its picturesque scenery, is most engaging. The fantastic rock cliffs, the grain-capped bluffs, the sweeps of meadow land, the glimpses of the river seen through frequently recurring vistas, the bustle of the river towns, afford a panorama which changes with kaleidoscopic rapidity. At Lake City, where I left Dr. Estes, the sharer of my joys and sorrows, I briefly interviewed "the boys." My anticipated visit there was shortened to a few brief hours, made pleasant by the hospitable attentions of our mutual friend S. B. Dilley, Esq., whose kennel of Ranger stock is famous among sportsmen and breeders of gentle strains. Beautiful are the intelligent brutes he breeds and trains. First in degree and reputation is the celebrated champion "Ranger," next, the best pointer in the New York Bench Show, the champion "Royal Fan;" then, the white bitch "Dolly," with a peculiar liver mark on the head, a magnificent animal and dam of "Royal Fan;" "Minnesota," a rare specimen of perfect form; "Chum," a liver pup of beauty, whose work in the field classes him A1; "Queen," winner of two prizes at Chicago; "Fleet," the winner of first prize for best bitch pup at New York; a pair of lemon and white pups out of "Minnesota;" these, with Dr. Luke Corchoran's "Bess," comprise the dogs I found in friend Dilley's kennel. Nearly all are pointers, a class of dog which chiefly engages his fancy and attention. He turned the whole gang loose for an airing on the morning when he drove me around in his hunting cart to interview the sportsmen of the town; and a grand sight it was to see them run! Not

all the unwonted bustle and distracting stir of a county fair then in progress sufficed to disconcert them or mar their good behavior.

I must tell you about this little episode: Having rested comfortably at my friend's house over night, and breakfasted sumptuously, we found but few hours remaining before the train left at 2 o'clock in which to make our visits. Now, Dilley has a spanking team of ponies whose conscientious principle it is never to go at less than a three-minute gait under any circumstances whatever. Over the prairie or through the town, around street corners, over crossings and gullies, or through the thoroughfares, no matter how muddy or how thronged with vehicles or pedestrians, it is all the same—they never break. Residents understand all this, and never hurry out of the way; they plod right on, and the team skips around with a dexterous turn. They have become so trained to these flanking tactics that they will not drive straight at anything: so, when Dilley wishes to enter the coach-house, he makes straight for the side, and thus strategically enters the door at the front. I think we must have made twenty calls after 10 o'clock that day. New Year's visits in New York were handicapped and beaten clear out of sight. Clinging to the seat like grim death, I held on bravely while we whisked around corners and jumped crossings, scratching gravel like mud, and kicking up clouds of white dust that covered us as if we had been dredged from a flour mill. The entire troop of dogs kept always in the van, helter-skelter, doing their level best, tails up, happy as jack tars when the commodore is aboard. It was fun to see with what acute discernment the old dogs would anticipate our movements, running *equo passo* when we abruptly turned a corner, never missing their foot or making a mistake; but the youngsters would go scooting far ahead in a straight line, like a hog on ice, and then fetching up on their haunches, wheel and make for the front again. That was the dog-gonest ride I ever had!

Well, in time we made the grand circuit, dined, adieued, and parted at last. The train rumbled off toward Chicago, and I jotted down a memorandum of the friends I had seen. First, there was "Uncle Dudley," (M. C. Russell, of the *Leader*), and his associate O. Jones, Esq.; then followed G. W. Lunley, President of the Lake Pepin Sportsman's Club and champion fly-caster, who won a Holabird hunting suit with Dr. Estes, Gen. Garrard and Wm. Morris as competitors; Dr. Garrard, the Mayor, and F. Ranckert the gun-dealer; Uncle Sam Doughty, the veteran goose hunter, who has the best lot of artificial geese I ever saw set up as decoys; S. M. Emery, a newspaper writer of note; Major J. E. Doughty; Oliver Gibbs, author of that very clever brochure entitled "Lake Pepin Fish Chowder," the venerable Mr. Patton, the leading fly-fisherman of the State, and Dr. Potter, his son; G. F. Benson and his son; Major Van Vliet, President of the State Sportsman's Association, and perhaps others whom I have forgotten. It was a noteworthy day's work, and, as may be inferred, there was no Dilley-dallying on the occasion. I would fain have lingered longer among them, but the limit of my vacation was reached. That my travels were not wholly barren of interest or observation, the prolixity of my letters has shown.

I now come to a full stop, and as I abruptly round the period, I reiterate the injunction of the great and good "white-coated philosopher," "Go West, young man," and do not omit to send some portion of your vacation rambles in Michigan, Wisconsin and Minnesota. Brethren, adieu!

P. S.—In my letter printed last week, where I alluded to Mr. Jerome Marble's bag of 150 birds, I intended to refer to only one day's shooting, and not to the net results of his excursion. HALLOCK.

#### GAME PROTECTION.

CONNECTICUT.—*Stamford, Jan. 19.*—The efforts of last winter to procure live quail for propagating purposes will be resumed with greater vigor, if possible. We must import birds or have none at all. G.

NEW JERSEY.—The Bergen County Association are disseminating posters and circulars, and in other ways publishing the New Jersey game laws.

MICHIGAN STATE SPORTSMEN'S ASSOCIATION.—THIRD ANNUAL SESSION.—The regular annual session of this leading organization will take place on the 5th and 6th of February, at the Potter House, Battle Creek, Michigan. Arrangements have been made to render the meeting of the most attractive character. Papers on topics of vital interest will be read. Among them we may mention, "On the General Topics of Preserving Game and Fish," by ex-Governor John J. Bagley; "On the Propriety of Establishing Bench Shows, or Field Trials," by Mr. John E. Long, of Detroit; "Should the Taking of White Fish and Lake Trout from the great lakes and rivers be prohibited during their spawning season, and for a sufficient time thereafter for them to recuperate and become healthful food?" Eli R. Miller, Fish Commissioner, Richmond; "Should Wild (water) Fowl be protected by law in this State? If yes, what species, and when?" John Davidson, Monroe; "The Michigan Grayling—What must be done to prevent the annihilation of this excellent food and game fish?" Lyman D. Norris, Esq., Grand Rapids; "Ducks and Ducking." Hon. A. B. Turner, Grand Rapids; "Need of More Effective Protective Legislation," Prof. N. B. Roney, East Saginaw.

The session will probably last two days.

The officers of the Association are: E. S. Holmes, President; A. J. Holt, Secretary.

PROPOSED EXTENDED GAME SEASON.—Buffalo, Jan. 1878.—Editor Forest and Stream: Weather unusually mild. A flock of five red-winged starlings made their appearance in the vicinity of the city, and a female red-head was shot on the Niagara. Both occurrences are without a precedent within the last twenty-five years. Game in enormous quantities still gorges the stalls of the dealers. They claim two months of surplus time after the close of the season to get rid of their stock. This annals the purpose for which the law was framed, i. e., the protection of the birds, since they are shot as long as there are buyers. It resembles in its working the sale of cheap and so-called slightly-injured goods by fire or water, which continue to be damaged as long as a credulous public allows itself to be duped. If a great amount of surplus stock on hand of any dealer calls for special legislation to protect him still further after having realized a handsome profit during the legitimate season, the logic should be extended likewise to others who depend on periodical profits, such as dealers in coal, stoves, or winter clothing. But the birds must be doomed to extermination to protect the dealer, who defies thus the whole purpose of the law. The last day of the shooting season must also be the last day on which a single game bird may be exposed for public sale.

GAME LAWS ENFORCED.—The Philadelphia Club, whose commendable zeal was mentioned last week, have been successful in their prosecution of restaurant keepers in that city, and have secured sentence against them for violating the laws respecting quail.

ARKANSAS SPORTSMEN'S CLUB.—Little Rock, Ark., Jan. 17.—Editor Forest and Stream: It is with regret and some mortification that I write to you of the dissolution of our club. It was formed for the express purpose of obtaining the passage of a game law. But, alas, the Granger element was largely in the majority in the two last Legislatures; and to reason with them on this subject was fallacy. The bill never saw the light, although it was very mild, and only included a few of the game birds and large animals abounding in this State. Becoming disgusted with our want of success, and not wishing to keep up an expensive organization for no practical use, we thought it best to dissolve, hoping a time may come when ignorance may be enlightened without the hard, stern lessons of experience. Already some of our farmers on the prairie have complained to me about the scarcity of game in their neighborhood, where a few years ago was plenty. It is the habit of some vandals to go out on the prairie every spring and gather the chicken eggs, shipping them to Memphis and Louisville by the barrel; and as soon as the few that are left are hatched they commence a merciless warfare of extermination. In a few years our chicken shooting will be but a pleasant recollection. Every kind of game is killed out of season by the negroes and white vandals, and we have no power to prevent it. Game of every kind has been unusually scarce this year; even the ducks, which are generally here in millions, seem to have entirely deserted us. However, the Grangers are not responsible for that.

"ONE OF THE CLUB."

[We are sorry to chronicle any backward step in the cause of game protection, although we doubt not our friends have acted wisely. At a future time we hope to hear better reports from Little Rock.—Ed.]

The Rifle.

MATCH AT UNION HILL

FOR THE FOREST AND STREAM AND ROD AND GUN MEDAL. We went to press too early yesterday afternoon to give the result of the match. The Jersey Shutzen Corps, the New York Schutzen Corps, the Independent New York Schutzen Corps, the Zettler Rifle Club, the Brooklyn Schutzen Corps and the Newark Shooting Society were each represented by their selected teams of twelve men each. We regret that we cannot now give the name of the winning team. Their laurels shall, however, in due time be recorded. In our next number we will give the full account of the scores of all the participants, accompanied by a cut of the medal, the design and workmanship of which have elicited very general admiration in rifle circles.

MASSACHUSETTS RIFLE ASSOCIATION.—Boston, Jan. 18, 1878.—At the annual meeting of the Massachusetts Rifle Association the following gentlemen were elected to fill the offices for the ensuing year: President, Charles A. Longfellow, Esq.; Vice-Presidents, Col. Nat. Wales, James E. Shepard, Esq.; Treasurer, Salem Wilder, Esq.; Secretary, Horace T. Rockwell, Esq.; Directors, Salem Wilder, Esq., Capt. F. R. Shattuck, Capt. W. H. Jackson, J. A. Lowell, Esq., C. A. Longfellow, Esq., Capt. J. S. Stevenson, Capt. H. T. Rockwell, J. N. Frye, Esq., H. B. Sargent, Esq., Wm. Polanos, Esq., J. Wemyss, Jr., Esq., Albert Hebbans, Esq., Wm. Geinst, Esq., E. B. Souther, Esq., L. S. Hubbard, Esq.

Table with columns for names, 200 yds, 300 yds, and TI. Lists scores for New York Rifle Club members.

Mr. F. H. Holton, with an allowance of 14 points, won the trophy.

YORKVILLE RIFLE CLUB, Jan. 19.—The following are the scores made at the fourth competition for the Paulling match, at Washington Park, 100 yards, Creedmoor rules and targets:

Table with columns for names and scores. Lists scores for Yorkville Rifle Club members.

Table with columns for names and scores. Lists scores for J. L. Paulling, P. A. Morrow, etc.

New RANGE.—A new range, to be called the Morrisania Range, will be opened in the upper part of this city April 1.

ALL COMERS' MATCH.—On Saturday last at Creedmoor, 260 Broadway, for a purse of \$100 gold, the following are some of the best scores made:

Table with columns for names and scores. Lists scores for W. M. Farrow, F. H. Holton, etc.

The next contest will take place on Saturday.

EMPIRE RIFLE CLUB.—A new rifle club has been formed, which will continue both short-range and long-range shooting in its matches. Its title is the Empire Rifle Club, given by Mr. Daly, of the firm of Schoverling & Daly, who has presented a gold badge for competition as the first prize. The officers are as follows: President, Leslie C. Bruce; Vice-Presidents, F. H. Holton and W. M. Farrow; Secretary and Treasurer, Dr. M. M. Maltby; Executive Committee, L. C. Bruce, F. H. Holton, C. H. John, M. M. Maltby, T. W. Linton, and W. M. Farrow. The first rifle contest will be held at Creedmoor next Spring.

PRIZE FOR PISTOL SHOOTING.—Commodore C. A. Cheever has presented to the N. Y. Rifle Club a prize to be shot for at Conlin's gallery—a beautiful gold scarf-pin, which is an exact model of a Stevens' Target Pistol. The matches with a pistol will be shot on every Thursday evening, commencing to-day.

NEW JERSEY RIFLE ASSOCIATION.—A meeting of the Board of Directors of the New Jersey State Rifle Association, which 17th. The question of expediting the bill now before the State Legislature for the purpose of incorporating the association was referred to the following committee: Col. Dudley Steele, Col. E. H. Wright, B. A. Vail, E. A. S. Man, and H. Anderson. The Committee on the Selection of a Range reported. Gov. McClellan will send in a special message in regard to rifle practice.

HACKENSACK RIFLE ASSOCIATION.—The annual meeting of this association was held at the above place on Wednesday eve, Jan. 9. Officers were elected for the ensuing year as follows: Pres., James Conklin; Vice-Pres., W. P. Ellery; Treas., A. B. Banta; Sec., Edwin Ackerman; Ex. Com., James Conklin, W. P. Ellery, A. B. Banta, Edwin Ackerman, J. T. Fream, H. L. Bruns. The association is in a flourishing condition, and contains about thirty-two members.

Mountain View, Jan. 19.—The following match between Mr. A. H. Boies and H. J. Smith occurred on the rifle range of the Laffin & Rand Powder Co., Mountain View, N. J., Jan. 18, Mr. Smith using a Remington 44 cal. breech-loader and a new brand of powder made specially for long-range shooting by the L. & R. P. Co., Mr. Boies using a 42 cal. muzzle-loading rifle, made by Ferris, of Utica, N. Y., and 70 grains of Orange Ducking No. 3, both powders giving a very even velocity with the least possible residuum.

Table with columns for names and scores. Lists scores for H. J. Smith and A. H. Boies.

NEW ORLEANS RIFLE CLUB.—Match for the champion medal, 500 yards, off-hand, standing. This match took place on the 13th, when Mr. C. Kressner won, having made the following fine score with a Sharps mid-range:

Table with columns for scores. Lists scores for First, Second, Third, Fourth, and Fifth scores.

The other scores were as follows: Mr. Wattenhofer 5 0 3 4 4 5 2 5 4 5 4 3 5 5 4-57; Mr. M. Winterer 0 4 4 3 5 4 5 2 4 4 3 4 2 5 3-52; Mr. Geo. Muller 5 5 4 5 3 2 5 3 4 0 2 0 4 2 4-48.

The Mitchell Rifles, in competition for the Goodwin badge, made the following score at 200 yards:

Table with columns for names and scores. Lists scores for J. P. Roche, Capt. M. Conroy, and M. O'Conner.

FROGMOOR.—CRESCENT CITY RIFLE CLUB.—The sixth competition for the gold badge of the Louisiana Field Artillery team took place on the same day on the grounds of the club, Mr. R. F. Schmutz being the winner, out of a possible 25; R. F. Schmutz 4 3 4 4-19; P. Salcano 4 4 4 0 16; M. Leumont 4 3 3 4 4-13; L. Caboche 0 3 4 4 0 15; P. O. Durel 3 4 2 3 4-16; J. W. Duer 2 4 2 3 3-17.

SACRAMENTO PISTOL CLUB.—The following good scores were lately made by this club:

Table with columns for names and scores. Lists scores for Atkinson, Blackburn, Brewer, Byers, Gerber, Gerber W. E., Goldswain, Griffiths, Jackson, Kane, etc.

SAN FRANCISCO LONG RANGE CLUB.—The first of the series of matches by the San Francisco Long-range Club came off at Bay View on the 5th inst., H. C. Smith winning the diamond badge for the first time. Annexed are the scores made:

Table with columns for names and scores. Lists scores for H. C. Smith, Captain H. J. Burns, J. Robertson, Frank G. Edwards, F. G. Blinn, S. H. Raymond, J. Leibert, J. N. Pike, R. C. Hanson, Frank Miller, etc.

BREAKING GLASS BALLS WITH A RIFLE.—Dr. W. F. Carver is matched to accomplish the unprecedented feat of shooting 235 out of 300 glass balls with a rifle.

THE LONG-RANGE FALLACY.

The National Guardsman, for February, devotes the space of a long leading article to what it styles the "Long-Range Fallacy," and labors with many words and less logic to show that "projectors of ranges in the future will find success and profit in considering the military or short-range shooting first and providing for their accommodation, instead of being carried away by the long-range fallacy." The National Guardsman is a specialist, and, carried away by its devotion to a single line of work, loses either the ability or the will to take broad notions of matters and things. In view of what long-range men have done and are doing for the advancement of the sport and science of rifle shooting, to speak of their work as "delusive heresy," "wasteful expenditure," and "extravagant outlay" is certainly emphatic if not very just, and a writer who can so thoroughly fail to see the merits of long-range work is to be excused his ignorance and simplicity when he looks at the small-bore marksmen and "wonders at their dictatorial assurance."

And have they not well earned the right to a modest share of assurance. If Creedmoor is self-supporting, what has made it so but the untiring and zealous labor of a band of long-range shooters? Granted that the bulk of the marksmen who frequent the range are mid-range and short-range shooters using military rifles, is that any sensible reason why the scientific portion of the sport should be left out? Call it "fancy" shooting if you will—show by a grand array of figures that the military fusileers outnumber the small-boreers an hundred to one; granted that in the field of battle the small-bore men would be of comparatively little service with their peculiar arms; granted also a dozen other things, equally as irrelevant, but equally specious and plausible, and yet the stern fact must remain, that to attempt to cut off this numerically insignificant minority would be a grievous error on the part of our American rifle managers. Whatever glory, whatever of credit, of life or energy now exists in our shooting record is due to the long-range men. The military men have done nothing as yet, and it ill-becomes them to speak of the glorious achievements of their more scientific fellows as a "fallacy."

The English riflemen have long ago listened to just such smooth-sounding arguments as those which appear in the National Guardsman. The Snider men looked upon the users of match rifles as mere idlers, and did not scruple to crowd them off the ranges; but a stinging revenge came in the successive defeats of the Irish, Scotch and British teams; and bitter indeed are the protests of John Rigby and other shrewd observers of equal intelligence who see the error of this exclusion, and now, when too late to save the national honor, point out the stumbling block. Not only were the teams defeated, but even the military shooters have suffered in retaining a poor arm, when, had they permitted the long-range experiments to go on, better grades of rifles throughout would have been now in use. In other words, whatever of scientific improvement is to be wrought in the military arm is to be gained through the more accurate, more precise and thorough tests at the longer ranges. America stands to-day ahead in all classes of arms, simply because no restriction, no form of repression has been exercised toward any one class of shooters. If any one expects to see the long-range shooters and the military marksmen numerically equal, they surely betray a most simple-minded hopefulness. Such will never be and never should be the case. The mechanical manipulation of a military arm should be the sport and duty of the masses; but the studious use of a match rifle can hardly rise above the pursuit of a few. But the few lead the many, as the small bulked brain governs the great body. To suppose that the question of the importance of this or that class of rifle shooting is merely one of majorities is so rankly absurd that a plain statement carries its own refutation.

We in this country need all the stimulus that can be given to the general subject, without stopping to argue questions of comparative importance of classes of rifles. Our long-range men have done magnificently well, and when the exclusively military marksmen have shown as brilliant a record, it will be time enough to split hairs of differentiation.

BREECH AND MUZZLE-LOADING RIFLES.

JUDGE GILDERSLLEE ON BREECH-LOADING RIFLES.

We recently wrote to Judge Gildersleeve for an opinion upon the merits of breech vs. muzzle-loaders, and rifles generally, and received the following reply, which we have been permitted to publish. Anything from the pen of Judge Gildersleeve is always of interest, but a letter upon this subject just now is particularly so:

NEW YORK, Jan. 9, 1878.

EDITOR FOREST AND STREAM: My Dear Sir—I have repeatedly been asked my views as to the comparative merits of breech-loading and muzzle-loading long-range rifles, and your letter is only one of many that I am in receipt of on that subject. I cheerfully give you my judgment, which is based upon considerable personal experience with both arms, together with careful observation and inquiry. The particular style of weapon that a man chooses I believe to be largely a matter of fancy; although the experienced marksman is certain to use the rifle with which he believes he can make the best score, no matter whether it has to be loaded from the breech or from the muzzle; whether it shoots with or without recoil; or in what country, or by whom it is manufactured. In my opinion the principal advantage a breech-loader possesses over a muzzle-load-

or is this: After each shot it can be cleaned perfectly, and the marksman can be assured of the thoroughness of his work in cleaning, by an ocular inspection of the inside of the barrel. Although the muzzle-loader can be cleaned between shots, and, by a man with a sensitive touch, perhaps, generally as thoroughly as the breech-loader is cleaned, there will be times, however, when the work of cleaning is imperfectly done. The marksman is aware of this, and since the ocular inspection cannot be had, there is not that assured confidence in the perfection of the weapon, which is absolutely necessary to secure the best results. This alone gives to the breech-loader an advantage, and since we realize that a weapon imperfectly cleaned is likely to do bad shooting the advantage of the breech-loader is apparent. Again, allowing that the breech-loader and the muzzle-loader are each manufactured with equal skill, and are perfect weapons of their respective kinds, I have found from experience and observation that the ignition of the powder by the percussion cap is not as perfect as by the primers ordinarily used in the brass shells.

With the muzzle-loader a "hang-fire" is not unusual, and in wet days I have known the discharge to be effected with difficulty. These obstacles are a heavy handicap in a match, and are never met with when using a breech-loader. I do not wish to be understood to say that they are often met with in using a first-class muzzle-loader; but there is a possibility, at least, that they may occur, and in a match that possibility should, if possible, be eliminated, and the chances of winning increased thereby.

As to rifles, there are several good ones, and I should not like to pronounce the shooting qualities of one to be better than the others. I have used Sharps breech-loaders because I was successful with them from the first, and have always had perfect confidence in their reliability. I have shot in many matches with them, and while I have not been so narrow-minded as to believe I had the only good rifle in the match, I always felt that if I could accomplish my part of the work as perfectly as the rifle would do its part I would be certain of success.

My first experience with a Sharps rifle was in the summer of 1874. I was at Creedmoor practicing at 500 yards with an ordinary .50 calibre breech-loading military rifle, and with very indifferent success. I observed a gentleman on an adjoining target who seemed to be making bull's-eyes most of the time. I walked over to him, congratulated him upon his good shooting, and told him how badly I was doing. He answered, although a stranger: "With as good a gun you could do as well," and further said, "I have fired all I care to, here are three cartridges remaining, and I would be pleased to have you try them." I was glad of the opportunity, and was not long in getting into position. The wind was blowing strong from the left. My new-found friend directed me to hold as near as possible upon the left centre line, and added if I did I would be certain to get a bull's-eye. I held there, and up came the white disc. I soon let off the remaining two in the same place and with the same result. I then began to examine the gun; it was decidedly plain in its appearance, short barrel, open military sights and heavy trigger. My friend said it was a Sharps rifle, and that he bought it from Moore & Sons, New York. I went there at the first opportunity and bought one just like it, for which, I believe, I paid about \$30. Upon trying it at Creedmoor I found my friend was right, and that I could shoot as well as he. It was not long before from nine to a dozen consecutive bull's-eyes at 500 yards was not an unusual circumstance with me, and that too in the prone position without wiping.

This was the second gun of any description that I ever purchased, and although I now have what might be considered a fair collection, this military arm still remains a great favorite, and I never shall part with it. I have used it with great success at nearly every distance from 200 to 1,000 yards, and always with satisfaction. With it I have shot game of many kinds, and on one occasion certainly at a remarkable distance. In April, 1877, in the Great South Bay, I killed a broad-bill duck with this rifle at a distance of more than half a mile. At 1,000 yards, without wiping and without rising, I have repeatedly fired 10 consecutive shots, making a good score and without a miss.

The making of three consecutive bull's-eyes in 1874, under the circumstances above narrated, gives the only reason for my commencing to use a Sharps rifle. I found the long range match rifles equally satisfactory, and shall continue to use them, until I can find something I believe to be better. I have found—and it was a strong argument to me in favor of the Sharps rifle, because it saved me much time and troublesome labor—that I could rely on the ammunition supplied by the Sharps Rifle Co. I never loaded fifty rounds of rifle ammunition in my life. I never shot a long-range match except with fixed ammunition supplied by the company. I have more than once rested at night while some of my associates were hard at work preparing their ammunition for the next day. I have also been able to participate in matches that they could not, because the ammunition of their own manufacture happened to be exhausted. The ammunition I used in the first match with Ireland I purchased over the counter at a Broadway store. I have found the shells to nicely fit the chambers, and do not remember that I ever had one so tight after firing that the ejector did not throw it out.

This letter has reached an unexpected length, which must be attributed to the subject under consideration. It is a theme which brings to my mind many bright days full of pleasant incidents. I see before me the faces of many gentlemen with whom I have had most agreeable relations in connection with rifle matters; in short, the theme brings up a panorama of the past upon which I love to dwell, and, undecided what line of thought to follow, I am prone to wander, and, I fear, have failed herein to either instruct or entertain.

But such views and conclusions on rifles as the foregoing is found to contain I subscribe to most heartily.

Yours very respectfully,  
H. A. GILDERSLEEVE.

## RECOIL AND UPSET OF BULLETS.

UTICA, January 7, 1878.

EDITOR FOREST AND STREAM:

In your issue of December 27 I noticed an able article from "Straight-bore" on the recoil of rifles, in which I concur. I have tried many experiments, which proved that the recoil of a rifle did not take place until the bullet leaves the muzzle.

The force is collected within the barrel of the gun, independent

of any outside body, and without any great tendency to move until the bullet leaves the muzzle and comes in contact with compressed external air that is forced from the gun. It would appear that the compressed air within the gun at the muzzle, coming in contact with the external air, would have a tendency to move the gun before the bullet left it, but in all my experiments I could not detect any movement before the bullet left the muzzle of the gun. I have rested the muzzle of a rifle on a steep incline, and made ten shots at 220 yards, all within  $\frac{1}{4}$ -inch diameter. If the gun had moved one-hundredth of an inch, it would have caused the bullet to drop four inches in the above distance.

The same force is generated in a light gun as in a heavy one. The light one has dead weight enough for the powder to exert the most of its power before the gun moves. The heavy one only gets a little additional force by holding its position longer, until the latter portion of gas escapes.

It is evident that we could not do such fine shooting if the gun moved before the bullet left the muzzle.

In my article of the 29th, I stated that a column of air was packed within the gun at the muzzle (when too quick powder was used) that diminished the power.

I should also have stated that we knew of such resistance twenty-five years ago, and regulated the grade of powder, according to the size of bore, and length of gun, so as to get the least resistance from compressed air.

I will here state that I do not agree with "Straight-bore" that the air within or without the barrel has anything to do with the upset of the bullet.

There is no resistance of air at the breech of a gun, and there would not be resistance enough to upset a bullet (if it was done with compressed air) until the bullet had moved  $\frac{1}{16}$  the length of the barrel. In such case the Creedmoor bullets (where they do not take the grooves in loading) would have to get all of their spiral motion and centrifugal force within  $\frac{1}{16}$  the length of the barrel.

If a bullet did not take the grooves until it had moved half the length of the barrel, there would not be centrifugal force enough to keep those long Creedmoor bullets *end on* in their flight, which goes to prove that a bullet upsets and takes the grooves on the start, and gets the full centrifugal force that the twist is intended to give. If those Creedmoor bullets did not upset before they had moved one inch or less, the patch would be blown from around them, and they could not hit a barn at 200 yards. A bullet is upset before the whole charge of powder is burned. The amount that is required to upset one in a rifle would upset one in a pistol, and that amount would be about all that would burn in the pistol. A larger amount would burn in the rifle, and give an accelerating power. A great overcharge of powder forms a cushion, and prevents the bullet from upsetting uniformly. A thick wad over the powder will prevent part of the upset. I have tried cork and other materials, but they caused an uneven upset and inaccurate shooting. A thin wad does not make much difference.

A bar of iron could not be upset if an inch thick of soft wood was placed on the end of it for the sledge-hammer to come in contact with.

Guns that are imperfect and liable to leak before the bullet is upset require a wad over the powder. Bullets that get loose in the shells require the same, unless the rifle is made on the old plan of forcing the bullet to the grooves without a patch. An overcharge of powder does not act quite like sand. The sharp particles of sand take hold of the barrel, and form resistance equal to a solid plug screwed into it. If a straight plug of wood is inserted into the butt of a bullet (as in Straight-bore's experiment), it would prevent the upset as far as the plug reached, and nearly all of the metal forward of the plug would react and show upset to the very point of the bullet. It would show a greater enlargement at the forward end of the plug than if the bullet was solid without the plug, because the most of the force behind would act at the forward end of the plug, and cause the centre of gravity much farther forward, and give more upset to the forward end of the bullet. The great blow given to the bullet by the powder upsets it the whole length.

If very quick powder is used, the forward half of the bullet will react and flow into itself, until it takes the form of the bore nearly to the very point of the bullet, which came nearly being the case with the curious bullet shown in the FOREST AND STREAM of January 3, 1878. Where bullets are long and cylindrical the upset is not as great at the butt end, but greater in the middle. The taper-form of a bullet is made to bring the centre of gravity nearer the butt-end, and give a parallel expansion within its bearings.

A very short bullet (that is not fitted to the grooves in loading) will not take the grooves if suitable powder for a longer one is used, although the velocity would be greater, and more liable to upset, if done by compressed air. There are grades of powder that would mash a conical bullet like putty the instant it started, and form it into a cylinder-shaped plug in the form of the bore. Hazard's FFFG would almost do it in a large bore where the bullet was of soft lead. Some of the refined grades of powder would mash a conical bullet into a straight plug. A bullet put down into the gun within ten inches of the breech, and the gun fired with a good charge of powder, will pack a column of air close behind the bullet and make an indentation into the steel 1-50th of an inch deep by 1-16th of an inch long, making a circular groove as if done with a flat-edge cutter.

If the bullet is put down the muzzle only three inches, and the gun fired, the long column of air in the compressed state covers so much more space that the bullet starts before any indentation takes place. Such an experiment would burst a light barrel.

If "Straight-bore" will take some rifle with Creedmoor bullet (that does not fill the grooves in loading), fire a number of bullets from it into snow, then rifle away every other land in the barrel down to within six inches of the breech, fire it again into snow, and compare the bullets with those of the first trial, and he will find them all quite uniform in expansion, and all of them will have the full number of grooves as at the breech of the gun. In the last trial the air is expelled from the barrel by the escape of gas passing the bullet after it has moved six inches, which prevents any chance of upset by compressed air.

Expelling the air as above gives one-fourth more penetration, but less accuracy, in consequence of the dirt being deposited forward of the bullet by the escape of gas.

The curious rifle bullet described in your issue of Jan. 3, 1878, has the appearance of being fired from an old style German rifle, made many years ago. They had many grooves. The bullets were conical, with a straight bearing about a quarter of an inch long. This bullet, found in the deer, must have been a quarter of an inch longer before it was fired, and in form like the above described. Its present form was made by using the quick powder causing it to upset, and take a double length bearing. I have known large bullets to upset more than that. The crooked point was made by its striking some twig that retarded it before it struck the deer. The imprint of paper folds at the base was made by the great blow given by the powder.

All soft conical bullets used with a patch show the full imprint of the threads of the cloth and grains of unburned powder on the base after being fired. This is another proof of the great blow given by the powder to upset a bullet on the start, and the indentations of unburned powder show that the main blow is given before the whole charge is burned.

Geo. H. FERRIS.

MONMOUTH, Warren County, Ill., Jan. 3, 1878.

EDITOR FOREST AND STREAM:

In looking over a recent number of your much valued paper, I discovered a communication from Mr. Ferris on the "upsetting of bullets," as he calls it, I must say I was struck with the erroneous impression he seems to have, and tries to convey in his letter.

His misapprehension of both the long-range muzzle-loader and the long-range breech-loader seems to me to be most profound, and altogether unaccountable in one who has ever seen or even heard of either. In the best muzzle-loaders the ball is a cone, the base being its largest diameter. The bearing surface, or that part of the ball which is squeezed into the grooves of the barrel, is very small, say 1-16th of an inch. The theory is that that is enough surface to prevent the escape of the gas past the ball, and the minimum amount of friction. With this ball it is necessary to use a starter, so that the ball, when driven home, may stand with its conical point exactly in the centre of the chamber. If it does not the ball will leave the muzzle in the same position, and, of course, will go wild. Mr. F. is altogether mistaken in his statement that the ball is cast so small that it will "almost drop" into the barrel of the gun. It is rammed through the starter, and into the barrel, and is large enough to take the rifles as it is rammed home. Your correspondent is mistaken in his statement that the ball is swaged into the grooves by the force of the discharge behind. The base of the ball is either perfectly flat or slightly oval, and cannot be influenced in that way by the force of the gas upon the surface. The old Minie ball had a hollow base, and the explosion of the charge did spread the ball into the grooves. The Enfield rifle ball had also a hollow base, and a boxwood plug was forced into the opening at the moment of discharge for the same purpose. Both these were rammed down very loosely into the chamber, and were "upset" by the force behind them. But such cannot take place in a ball with a solid or flat base, and is not so intended. Now, as to the breech-loader: Twelve or thirteen years ago I had occasion to try several kinds of them, including the Sharps, the Henry, and the Colt. I found all unreliable in that most important quality—steady accuracy. Several excellent shots would be made, and then would come one or two which could not be accounted for in any way only that the gun or ammunition was imperfect. At that time they were worthless for sporting or target purposes. In a long talk with the late Mr. Sharp (the inventor of the Sharps rifle), he gave me (after admitting the fact as stated) several reasons for it, the principle of which was this, that they all fashioned their bullets after the style then, as now, used in the muzzle-loader—a cone with a small bearing. In many instances the ammunition was not very carefully prepared, the point of the cone not exactly in the centre of the chamber, and a wild shot was the consequence.

Now, all this is changed. They have lengthened the bearing surface of the ball, and grooved it to lessen the friction, so that if the point is not exactly in the centre of the chamber it must right itself when it takes the grooves at the moment of discharge, and no harm is done. The result is that our breech-loading rifles of to-day, for steadiness, accuracy and regularity, are equal to the best muzzle-loaders. Not better in these respects. "Just as good," is high praise when compared with our best American muzzle-loading rifle. With this digression let us go back to Mr. F. He says that Creedmoor was not a contest between muzzle and breech-loaders, as the behavior of the ball is alike in both. It is a most singular statement for any one to make who has ever seen the two instruments. His assertion that the ball is swaged into the grooves in both by the "spreading" of the ball is true in neither case. In neither case is the ball cast small enough to be "almost dropped" into the muzzle of the gun. Did he ever try to ram the ball—say of Remington's .50-gauge cartridge—into the muzzle of his .50-gauge gun? I fancy it would make him sweat, particularly one of his long-range balls which is one-sixteenth part in. No! The ball is forced from the wide chamber at the breech into the narrower grooved portion of the barrel, and takes the rifles or is upset, not because it is expanded by the force of the powder, but because it is too large to be driven through without doing so.

VENATOR.

MEMONONTE, Wis., Jan. 8, 1878.

EDITOR FOREST AND STREAM:

I have read some communications in your paper on the recoil of guns and the upset of bullets. Below I give my views on these points briefly, and if the same ideas have already been advanced by others, and published by you, do not publish this letter. The recoil takes place immediately after the bullet has left the rifle, otherwise the aim would be seriously disturbed, and the mark would not be hit. The recoil is caused by the outer air rushing in to fill the vacuum made by the explosion of the powder and exit of the charge. The report is a result of the same cause. The upset of the bullet is from three causes combined, viz.:

1st. The sudden starting of the bullet from a state of inertia.

2d. The friction retarding the ball, and thus in a manner continuing the first cause.

3d. The compressed air in front of the bullet.

However we theorize on these matters we must not overlook the prime factors, powder, fire and man, who is disposed to "kick up a fuss generally."

Yours truly,  
J. H. KNAPP.

EDITOR FOREST AND STREAM:

The articles published in your paper are always welcomed by all sportsmen, especially those on rifle shooting and the upset of bullets. They have awakened an interest in, understanding the why and wherefore of the things, and cannot fail to produce a good and lasting result. The remarks in regard to the N. & L. Syracuse muzzle-loading rifle suit me exactly. A little of my own experience will, perhaps, set some one better qualified, to thinking and working. Having two .41 calibre rifles, one a F. & W. Worcester breech-loader, 7½ pounds, and the other a Rigby muzzle-loader, 7½ pounds, with a false muzzle and ball shaper, I have tried the two side by side. The muzzle-loader invariably gives a penetration of 10 deg. greater at 100 yards than the breech, while the upset of the balls is about 1-16th to 1-8th less. The charge used being 50 grains Curtis & Harvey or Lathin & Rand, and 100 grains lead; both balls being swaged and cast with a ½ soft metal and ¾ hardened lead. Soon a party of "ours" are to rig a recoil gauge and try what virtue a muzzle-loader can possess over a breech. Would say that both these guns are A1 shooters, and have made remarkably good targets.

Worcester, Jan. 18, 1878.

NED.

THE PROPOSED MATCH  
Between Breech-loaders and Muzzle-loaders  
Rigby and the Sharps Rifle Co.

SHARPS ARMORY, BRIDGEPORT, CONN.,  
December 29, 1877.

MR. JOHN RIGBY, DUBLIN, IRELAND:

Dear Sir—In response to your letter published in the *Yonkers Service Gazette*, Dec. 8, in which you say: "I am ready to arrange a match at 1,000 yards between two men shooting with muzzle-loaders and two men with American breech-loaders, the latter to clean at their discretion, and the prize to go to the squad making the best score in a given time," we announce to you our desire to meet you in such a match, and, with a view of settling the detail, we send the following conditions for consideration:

1. You to name two men who shall shoot Rigby muzzle-loaders and we will name two men who shall shoot Sharps breech-loaders, each squad to be allowed one or more substitutes who may take the place of a contestant in case of accident or illness.
  2. The rules of the N. R. A. of America that apply to team matches shall govern this, and the rifles used shall also conform in weight and trigger pull to said rules.
  3. Each competitor must continue through the shooting of each day with the rifle begun with, except in case of an accident not pertaining to the system or style of gun used, such as the breaking of a part, etc.; but the sticking of a shell in a breech-loader, or a load that will not discharge in a muzzle-loader and other accidents peculiar to the rifle, will be at the risk of the competitor.
  4. The match to come off during the month of May next, and, to make conditions as nearly equal as to wind and weather, it shall be shot on three days, one day in each of three successive weeks, and to continue one hour on each day. In case of severe storm on any day appointed, that day's shoot may be postponed to another day in same week. The shooting may begin at any hour of the day, but each hour must be completed when begun, except in case of storm that shall render shooting impossible, in which case it may be completed at another hour or on another day. A sufficient number of targets shall be supplied each squad, so that any delay in the marking shall not delay the contestants.
  5. Each squad to select the range on which it will shoot, you to select one or more persons to represent you upon the range selected by our squad (which will be Creedmoor undoubtedly), and we to be likewise represented upon the range used by you.
- The prize, which shall be \_\_\_\_\_, and shall be furnished by the loser, "to go to the squad making the best score in a given time."
- Yours truly,  
THE SHARPS RIFLE CO.

Sea and River Fishing.

FISH IN SEASON IN JANUARY.

SOUTHERN WATERS.

Pompano, *Trachinotus carolinus*. Grouper, *Epinephelus nigritus*.  
Drum (two species), Family *Sctia*. Trout (black bass), *Centropomus*  
*reticulatus*.  
Kingfish, *Menticirrus nebulosus*. Striped Bass, or Rockfish, *Morone*  
*oxycetulus*.  
Sea Bass, *Sotomops ocellatus*.  
Sheepshead, *Archosargus probato-* Tailorfish, *Pomatomus saltatrix*.  
*cephalus*. Black Bass, *Atractopterus scimoides*.  
Snapper, *Lutjanus caesus*. *M. nigricans*.

FISH IN MARKET—RETAIL PRICES.—Striped bass, 20 to 25 cents; smelts, 10 to 18; bluefish, 15; frozen salmon, 30; mackerel, 15 to 25; Southern shad, from Newbern, N. C., first in market, \$1; white perch, 15; Spanish mackerel, 30; green turtle, 25; terrapin, \$18 per doz.; frost fish, 8; halibut, 18; haddock, 8; codfish, 6 to 8; blackfish, 15; Newfoundland herring, 6; flounders, 8 to 12½; eels, 18; lobsters, 10; sheepsheads, 25; scallops, \$1.50 per gallon; soft clams, 30 to 60 per 100; whitefish, 18; pickerel, 15; sunfish, 6; yellow perch, 6; salmon trout, 18; black bass, 18; yellow pike, 12 to 15; ciscoes, 12; hard crabs, \$3 per 100.

MASSACHUSETTS—Medford, Jan. 19.—Fine sport on the Upper Mystic, fishing through the ice for pickerel and black bass. James W. Russell and Mr. Lyms caught, Jan. 16th, in six hours' fishing, respectively fifty-eight and thirty-six pounds. A few bass were taken, the largest weighing two and a half pounds.

MASSACHUSETTS—New Bedford, Jan. 19.—The fishermen have had one week of pond fishing through the ice, and large strings of pickerel and perch were taken.

MOVEMENTS OF THE FISHING FLEET.—The fishing fleet is on the increase, some 35 vessels being engaged in the Lallave and Georges fishery and about 40 in the Bank fishery. The number of fishing arrivals for the week has been nine, one from Fortuna Bay with a cargo of salt herring, four from the Banks with 15,000 lbs. split codfish and 60,000 lbs. fresh halibut, and four from Georges with about 150,000 lbs. round cod and 10,000 lbs. halibut.—Cape Ann Advertiser, Jan. 17.

NEW YORK.—Greenwood Lake, Orange Co., Jan. 14th.—Judging by the numerous instances I have heard your paper quoted as authority by visitors here, FOREST AND STREAM must be very popular with the patrons of Greenwood Lake; and, as most sportsmen and lovers of nature cherish pleasant memories of their summer haunts and places of recreation, I venture sending you a few stray winter notes from a summer resort.

The last of the summer guests have long since departed. The proprietors of the different hotels, taking advantage of the exceptionally fine weather, have already made many of the repairs and improvements usually postponed until spring.

At the "Brandon" House a large, new ice-house has been built, and is now ready for filling.

At the "Windermere" extensive alterations and improvements have been made in the dining-rooms; the parlors enlarged, new water-closets built and connected by covered porches on the first and second floors with the house; a barber-shop annexed to billiard room, and new, covered porch entire length of building. Many other improvements are in contemplation.

At the "Traphagen" the approach to the house has been changed and very much improved, giving more lawn in front. Mr. Jenness has already filled his ice-house, and is the "pioneer" ice man of this season.

At the "Bradner" House, it being a new house, very little has been done or needed in the way of repairs or building.

At the "Harzeu" House a new and very pretty boat-house has been built, and additions to the hotel are said to be projected for the spring.

The lake closed on the 7th, and is now firmly frozen over with an average thickness of about seven inches of ice. Several persons have already been fishing through the ice, but so far with poor success. This is supposed to be the close season for all game fish, but some of our fishermen contend that the law does not apply to perch or catfish. If this is the case legislation is needed, for all fish should be protected during the breeding and spawning season.

The great question of the hour with our hotel men now is the ice crop, and all are prepared to fill their houses as soon as a "cold snap" occurs.

The New Jersey *Mirror* says that the run of codfish off the Jersey coast this year is unusual, and the fishermen around Atlantic City have caught them in such large quantities that the price has been greatly reduced since the beginning of the season. As much as eight tons of the fish have been brought into the Atlantic City inlet in a single day, and while the average price was ten cents a pound it is now from three to five cents a pound at retail.

Black bass are now one of the most popular fish sold in the Philadelphia market. There is a steady demand for them at remunerative prices.

MARYLAND—Elkton, Jan. 19.—Catfish in the Northeast River are unusually plenty this season.

FLORIDA—Lake City, Jan. 14.—There are quite a number of fresh-water lakes near this place, which give it its name. Fish are quite plenty—bass, bream, and pike. T. B. R.

THE "GREAT WESTERN PISCATORIAL CLUB" was organized at Philadelphia, on the 5th inst., by the election of the following officers: President, Wesley M. Stoner; Vice-Pres., Robert C. Smith; Secretary, John B. Simon; Treasurer, Thomas Russell. The office of Captain and Steward has not been filled as yet.

THE REDFISH OF IDAHO.—We have received from Capt. Chas. Bendire, 1st Cavalry U. S. A., a monograph on the birds of Southeastern Oregon, which is a most valuable addition to ornithology. The gallant captain was engaged in the chase after the Nez Perce Indians. He writes:

"As my ride extended over 3,200 miles of country, I had a chance to see considerable, and I must say that I passed over some most interesting regions, particularly in Northern Idaho. Made the acquaintance of the grayling in Firehole River, Montana, and subsequently in several other places. As far as trout are concerned I won't say anything; the stories to

you, Eastern gentlemen, would sound too fishy. They will have to come out here and see for themselves. I camped at the headquarters of the Redfish, such as are found in the Wallowa Lake, W. T.; but in Payette Lake they are much more plentiful. Unfortunately I passed the latter place a little too early, and none were obtainable at the time I was there, the commencement of July. The latter part of August and the whole of September is the proper time to find them, and a regular fishery is established near the head of the larger Payette Lake where parties make a business to catch and salt them for the market furnished by the mining camps in the vicinity.

SPLIT BAMBOO RODS FOR ENGLAND.—With a leading house like Conroy, Bissett & Malleson, of No. 65 Fulton street, New York, there is no dull season. The process of manufacturing goes on all throughout the year. Split bamboo rods, which beautiful angling implements are the great specialties of this firm, cannot be turned out like buttons. Care must be taken in the selection of the materials, and when the many pieces which make up the rod are brought together in order to glue, or otherwise fasten and bind the bits together, is a process requiring time and precaution. Delicate hand-work cannot be forced; whenever it is, such work is scamped. The demand for spring tackle commences as early as January, and notwithstanding the general ideas of bad times and no money, Messrs. Conroy, Bissett & Malleson are hard at work turning out their tackle to meet the wants of anglers. Coals may not go to Newcastle, still Conroy, Bissett & Malleson are sending all the time their finest split bamboo rods to England, having quite lately filled an order for three of their very choicest rods.

AILANTHUS WORMS FOR GUT LENGTHS.

TORONTO, Jan. 14, 1878.

EDITOR FOREST AND STREAM:

I was much interested in Wm. Gray's article on "Silk-worm Gut" in your last issue, and, without occupying too much of your valuable space, would like to keep up attention to the subject. I was not aware that gut of the length and size that Mr. Gray mentions as having been in his possession had ever been made, but I always thought it was possible to make such gut from some of the larger Bombycids.

Some years ago, my friend Dr. Garlick, then living in Cleveland, gave me some cocoons of the ailanthus silk worm (*Attacus Cynthia*, or *cecropia*, I think he called it), which he found attached to the rose bushes in his garden, and which I brought home intending to try the experiment of producing silk worm gut from them. From the size of the caterpillar, I was convinced that it was practicable to procure gut of great length and size, such, in fact, as Mr. Gray describes. Unfortunately, I was not at home when the moths emerged from the cocoons, and although I had made suitable arrangements, I did not succeed in hatching any caterpillars; and, even had I done so, I fear I would have had difficulty in getting sufficient proper food for them. I have never, however, given up the idea, and would like to excite sufficient interest in some of your readers living in those localities where ailanthus moths are found, and where suitable food can be obtained, to try the experiment, which, if successful, would not only be a great boon to fishermen, but would also "pay." Dr. Garlick informed me that these moths existed in great numbers around Cleveland, and that the caterpillars fed on the sassafras.

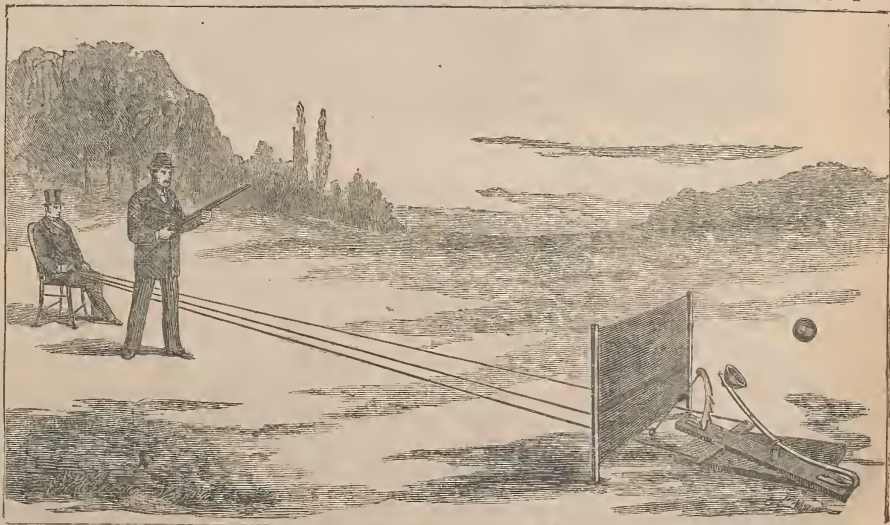
By the way, a singular fact occurred in connexion with the cocoons, which will be interesting to entomologists: One of them did not open the next summer along with the others; it lay all the next year in a drawer along with a lot of odds and ends, and, during the second summer, to my surprise, a moth emerged from it, but its vitality was so feeble that it only lived a few hours. J. H. RICHARDSON.

—Even in Paris they have plumbers, and plumbers have bills, as witness this item from a bill:

To looking for leak in gas pipes.....	2 francs
To finding the same.....	3 "
Total.....	5 francs

It is even worse in America, where the plumber not only always has an assistant, but has to lose time while his assistant has gone for the soldering iron or the charcoal.

BOCARDUS' PATENT GLASS BALL TRAP.



The attention of Shooting Clubs and the public generally is called to this trap; it is the only one that gives good practice for wing shooting, as it throws the ball in a manner more closely resembling the flight of a bird than any other trap made. Any man who has never shot a bird on the wing, and will practice from my trap according to rule until he can break two-thirds of the ball's he shoots at, can go in the field and secure a good bag of game. The single trap will throw the balls in any direction or elevation at the option of the puller, as the screen prevents the shooter seeing which way the trap may be set. The Bogardus Patent Rough Glass Balls are made of uniform weight and thickness, and have a corrugated surface that strengthens the ball for shipment to any part of the country, prevents the glancing of shot and thereby insures the breaking of the ball when hit. Buy none but the best, and patronize the man who has spent both time and money to introduce glass ball shooting to the sporting public, until it has become a national pastime. Balls and traps can be ordered through all gun dealers. Balls \$3 per 100; liberal discount to the trade.—[See advertisement.]

**Yachting and Boating.**

**HIGH WATER FOR THE WEEK.**

Date.	Boston.	New York.	Charleston.
Jan. 25.....	H. 4 19	M. 1 13	H. 0 15
Jan. 26.....	5 71	2 05	1 12
Jan. 27.....	6 20	3 09	2 17
Jan. 28.....	7 27	4 11	3 24
Jan. 29.....	8 33	5 14	4 29
Jan. 30.....	9 34	6 08	5 29
Jan. 31.....	10 23	7 00	6 18

**ICE YACHTING.**

In response to the request of numerous readers, we republish from our issue of Jan. 27, 1876, the cut of the ice yacht Haze, belonging to Aaron Innis, Esq., of Poughkeepsie, N. Y., and the following description of the dimensions and mode of building an ice yacht of about the size of the Haze, which will give an intelligible idea of their construction:

The body, or boat proper, is made up of three principal parts—the keel or centre timber, and two side timbers. The keel is 21 feet 6 inches long, 3 inches wide and 9 inches deep. The two

ter in the centre, and 2 1/2 inches at the ends. It is fastened aft of the mast by means of an eye and a staple.

The jib-boom is fifteen feet 3 inches long, 2 1/2 inches in diameter at the centre, and 2 inches at the ends, and is fastened to the forward end of the bowsprit.

The gaff is 8 feet 9 inches long, 2 inches in diameter, and has the jaws made to an angle, so that they set square across the mast.

The sails are two in number, the mainsail and the jib. The mainsail has the following dimensions: hoist, 14 feet, 6 inches; foot, 23 feet; head, 8 feet; leach, 23 feet; the lift of the mainsail at the end of the boom is 1 foot 6 inches.

The dimensions of the jib are as follows: hoist, 15 feet; foot, 14 1/2 feet; leach, 22 feet; and it has a lift of one foot. The rigging is of half inch round iron and wire rope.

**HOW TO DRAW THE WATER LINES.**—In original designs, the midship section is first determined, then the width of the proposed water line is marked on the midship section, and a baton is bent so as to touch the groove or rabbet in stem and stern deadwood, and take in its curve the point marked in the midship section. The outline of the deck is shaped in a similar manner, and these lines are next transferred from the half-breadth to their respective places on the body plan. Curved lines—to represent the outlines of the cross-section—are drawn so

as to connect the determined points for deck and load water line with the rabbet of the keel. Intermediate water lines are also drawn on the body plan, and the buttock lines drawn and transferred from the body to the sheer plan. Draw the buttock curves on the sheer plan true curves, and all imperfections shown must be rectified as described in the paper on drawing.

**First Day.**—1, Junior four-oar; 2, Junior double-scutt; 3, Six-oared barges; 4, Junior single-scutt; 5, Tub race, fifty yards.

**Second Day.**—1, Senior four-oar; 2, Junior double-scutt; 3, Gig race; 4, Senior single-scutt; 5, Review by the Commodore; 6, Swimming race, one hundred yards.

Length of course, one mile straightway and return, for all races.

Time, Wednesday and Thursday, June 19 and 20, 1878.

**Resolved,** That a piece of plate, to be denominated the "Association Challenge Medal," be awarded to the winner of the senior four-oared and senior single-scutt races, to be won at least three consecutive times before becoming the property of the winners;

**Resolved,** That a special medal be awarded to the winners in each class of the junior races at the regatta in 1878, to become the property of the individuals to whom granted.

Considerable competition arose between Madison, Wis., and Peoria, Ill., each offering inducements for the holding of the regatta. It was finally decided in favor of Peoria. A committee of three was chosen to act with the Peoria Club in the investment of \$600 guaranteed by the Peoria Boat Club for prizes.

Sparkman, F. W. Dawson, A. L. Tobias, Samuel Wragg, J. B. Bissell, J. Legare Walker, R. D. Mure, W. K. Bryan, A. Vanderhorst, J. Anorum Simons, H. B. Bull.

**A NEW YEAR'S REGATTA ON LAKE GEORGE.**—Quite an unusual event was the single-scutt race which came off at Lake George, N. Y., Jan. 1. One year ago the day was celebrated by a trotting race on the ice. This year, over the same course, six stalwart oarsmen pulled their boats, taken for the oars from their winter quarters. The winner was Mr. Ed Irish, who made the mile in 8m. 45s.

**COLUMBIA COLLEGE BALL.**—The ball at Delmonico's, Jan 16, for the benefit of the Columbia College crew, was in every way a decided success, creditable to its efficient managers and, in its proceeds, of substantial aid to the boating fund.

—Harvard has challenged Cornell to a freshman eight-oared race of three miles.

**MESSRS. TIFFANY & CO.,** UNION SQUARE, NEW YORK City, have made extensive preparations for the approaching HOLIDAYS.

Their Stock of Diamonds, Watches, Jewelry, Silverware, Bronzes, Pottery, Stationery and Fancy Articles, is the largest and most varied in this country, and includes novelties from abroad and choice goods of their own manufacture, not to be found elsewhere.

A special department has been organized for sending goods to persons at a distance from New York, and any one known to the house, or naming satisfactory references, can have careful selections sent for inspection.

They have lately published a little pamphlet containing a condensed account of each department, and lists of articles appropriate for presents, which they will send to any address on request.

*Medicinal.*

The Great European Novelty.

**HUNYADI JANOS.**

The Best Natural Aperient.



**THE LANCET.**—"Hunyadi Janos." Baron Liebig attests that its richness in aperient salts surpasses that of all other known waters."

**THE BRITISH MEDICAL JOURNAL.**—"Hunyadi Janos."—The most agreeable, safest, and most efficacious aperient water."

**PROFESSOR VIRCHOW,** Berlin. "Invariably good and prompt embers; most valuable."  
**PROFESSOR BAMBERGER,** Vienna. "I have prescribed these waters with remarkable success."  
**PROFESSOR SCANZONI,** Wurzburg. "I prescribe none but this."  
**PROFESSOR LAUDER BRUNTON,** M. D., F. R. S., London. "More pleasant than its rivals, and surpasses them in efficacy."  
**PROFESSOR ATKEN,** M. D., F. R. S., Royal Military Hospital, Netley. "Preferred to Pulna and Friedrichshall."

**A WINEGLASSFUL A DOSE.** Every genuine bottle bears the name of "The Apollinaris Co. (limited)," London.

**FREDERICK DE BARY & CO.,** 41 and 43 Warren Street, New York. Sole Agents for United States and Canada.

FOR SALE BY DEALERS, GROCERS AND DRUGGISTS.



ICE-YACHT "HAZE."

side timbers are each 2 1/2 inches wide and 4 inches deep. They are joined at the stern to a semi-circle of 15 inches radius, and at the mast by means of a curved plank 12 inches wide, 3 inches deep, and 7 feet 1/2 inches long, which is bolted to them.

The runner plank to which the two forward runners are bolted, and which is bolted to the under side of the side timbers and running under the keel, which projects about an inch below the side timbers.

The runners are three in number, two forward and one aft (called the rudder), are made of 2-inch plank, and have steel shoes bolted to them by means of bolts tapped into the shoe and running through the wood, having their heads countersunk therein so as to be flush. The shoes are fastened by 5/8 inch bolts tapped into them; they are ground on the running edge to an angle of 90 deg., and are 1 1/2 inch deep.

The after-runner, or rudder, is smaller than the forward ones, and is fastened to a rudder-post, which passes through the keel and terminates in a tiller, 2 feet 3 inches long, by which the boat is steered.

The body is planked on the under side with inch boards for a distance of about 7 feet from the after-end.

The mast is 20 feet high, 5 inches in diameter at the foot and 3 1/2 inches at the top, and has a topmast fixed into the top 3 feet long, 2 inches in diameter at the large and 1 inch at the small end.

The bowsprit is 16 feet long, 6 inches deep at the widest part, and 3 1/2 at the ends, and is 3 inches wide on the bottom, beveling to 2 inches on the top. It is fastened to the keel by means of an iron band three-quarters of an inch wide, and also by a bolt running through both.

The boom is 22 feet long, 4 1/2 inches in diam-

as to connect the determined points for deck and load water line with the rabbet of the keel. Intermediate water lines are also drawn on the body plan, and the buttock lines drawn and transferred from the body to the sheer plan. Draw the buttock curves on the sheer plan true curves, and all imperfections shown must be rectified as described in the paper on drawing.

**NAUTICS.**

**MISSISSIPPI VALLEY AMATEUR ASSOCIATION.**—Chicago, Jan. 14.—*Editor Forest and Stream.*—The Mississippi Valley Amateur Association held their annual meeting in this city on Saturday last. The following members of the Executive Board were present: Pres., J. C. Osgood, Burlington, Iowa; Vice-Pres., J. A. St. John, St. Louis, Mo.; Sec'y, R. G. Thwaites, Madison, Wis.; Commodore, C. L. Williams, St. Paul, Minn.; Treas., F. M. Staples, Chicago; Ensign, P. C. Wheeler, Peoria, Ill.; F. W. Montgomery, Milwaukee, Wis.; and F. W. Gould, Moline, Ill. The following programme on regatta was adopted:

**Resolved,** That Article VI. of the by-laws be amended by the addition of the following as Section V.:

A junior sculler is one who never won a race in a club or any association regatta.

A junior crew is one in which no member thereof has ever participated in the winning of a shell race in any club or association regatta.

A senior sculler or oarsman is one who has won or participated in the winning of a junior

**REGATTA ASSOCIATION OF SOUTH CAROLINA.**—The annual meeting of the Regatta Association of South Carolina was held Jan. 13, and I give you report of the same: To Commodore Tupper we are indebted for the prosperous condition of the Association, and there is no one that has taken a livelier interest, or has done so much for the aquatic sports of Charleston, as the Commodore, and his resignation will be keenly felt by the Association. His successor, Mr. Geo. D. Bryan, is a gentleman who has also done a great deal for the Association, and he is certain to keep it up to the present prosperous condition to which Commodore T. has raised it. The appreciation in which the retiring Commodore's efforts were regarded was expressed in a resolution of thanks.

The following officers were then unanimously elected, and the meeting adjourned:

Commodore, George D. Bryan.  
 Vice-Commodore, E. H. Frost.  
 Rear Commodore, B. H. Rutledge.

Vice-Presidents, Henry Gourdin, Wm. Ravenel, C. O. Witte, C. D. DeSassure, W. L. Trenholm.

Soloitor, Wilmot G. DeSassure; Secretary, Samuel Wragg; Treasurer, T. S. Heyward, Jr.; Assistant Treasurer, J. P. Moodie.

Executive Committee—A. T. Smythe, A. B. Murray, C. H. Glidden, C. R. Holmes, Jr., E. H.



NICHOLS & LEFEVER, SYRACUSE, N. Y.

DOUBLE AND SINGLE-BARREL BREECH-LOADING SHOT-GUNS Double-Barrel Breech-Loading Rifles, and Shot and Rifle combined. Muzzle-Loading Creedmoor guaranteed to be the best, and not to give "UNACCOUNTABLE MISSES."

Our Catalogue for 1878 will be ready January 15, giving full description of gun, recent improvements in same, matters of general interest to Sportsmen, etc., etc.

The Kennel.

ST. LOUIS BENCH SHOW

February 19th, 20th, 21st and 22d, 1878. \$3,000 CASH PRIZES, \$2,500 SPECIAL PRIZES. REDUCED RATES AND PASSES FOR DOGS ON RAILROADS—HALF RATES BY ALL THE EXPRESS COMPANIES.

The richest prize list ever offered at a dog show in America. Premium lists ready for mailing on application to the Secretary.

Entries Close Feb. 5, 1878, Positively.

All entry fees must accompany entries. Certificates furnished exhibitors by the Association entitling the holders to reduced railroad rates and privileges.

CHAS. LINCOLN, Superintendent. JOHN W. MUNSON, Sec., St. Louis, Mo.

The Kennel.

WEST HILTON KENNEL—"Lelap" In the stud, bred by R. H. Purcell Llewellyn, England, sire "Leicester," dam "Doll," sister to "Dart" and "Adam" "Drake," color white, ticked black and tan, 23 1/2 inches high, extra quality, very handsome. Fee, \$35.

SETTERS FOR SALE—"Fan" black and tan, pure Gordon, imp. stock, out of "Maud," by Marbles "Grouse," two years old; taught first lessons; bred to "Lelap," Jan. 5, 1878; price \$75. One dog, two years, white and chestnut, sire Tucker's dog, Providence, N. I., Copeland's "Old Pete" grand sire, dam English imported, very handsome, 23 1/2 inches high; taught first lesson, and game shot over; price \$15. "Bell," half imported red Irish and half English, color orange, two years old, taught first and second lessons (see circular), extra in field, fast, staunch and handsome, 23 1/2 inches high, never bred, price \$125; will breed her to "Lelap," same price. Dogs trained and boarded. For terms and particulars, send for circular. FRANKLIN SUMNER, Milton, Blue Hill, Mass. 117 4t

FOR SALE—A valuable setter dog, nearly three years old, choice stock, price \$30. A first-class English double-barrel breech-loader, made to order by A. A. Kellogg, New Haven, Conn.; used very little; warranted, size No. 12; price, \$50. A Buller Health-Lift, good as new; a little shop worn; cost \$75, price \$25. Address 213 Orange street, New Haven, Conn. 117 3t

THE DOG BREAKER'S GUIDE—Train your own dogs in the most artistic manner. "The Dog Breaker's Guide" sent for three cent stamp. M. VON CULIN, Delaware City, Del. 117 1t

FOR SALE—One imported red Irish setter dog, Dash, from J. C. Cooper, Limerick, Ireland, of good stock, sired by Grouse out of Flirt. Dash is about two years old and unbroken; of a deep blood red color, with slight marking of white on face. Price moderate. One Chesapeake Bay duck dog, Friday (long hair), well broken to retrieve (about one year old), price \$25. Snapshot, celebrated champion pointer, and Frank, imported English setter, winner of first at Philadelphia, in the stud. LINCOLN & HELLYAR, Warren, Mass. Jan 17 4t

COCKER SPANIEL BREEDING KENNEL OF M. P. MCKOON, Franklin, Del. Co., N. Y. I keep only cockers of the finest strains. I sell only young stock. I guarantee satisfaction and safe delivery to every customer. These beautiful and intelligent dogs cannot be beaten for ruffed grouse and woodcock shooting and retrieving. 116 1t

FOR SALE CHEAP—Red Irish setter pups, whelped Nov. 21, out of Belle II.; she out of Belle Mead; by Robinson's Jack; sire Mack, he out of Carrie, by Pinnock. P. DUNHAM, Leeds, Mass. Jan 24 2t

FULL-BLOODED—Two Irish setter bitches, four months. Sire of pups, Don, imported from J. C. Cooper, of Limerick, Ireland, by C. H. Turner, Sec. Nat. Kennel Club, St. Louis, Mo.; dam, Conniss, by Rodman's Dash. One Gordon bitch, eighteen months old; hunted this fall; staunch on quail and very fast, with good nose; will make a good one. One Gordon bitch eight months old. Full pedigree given with pups. H. B. VONDERSMITH, Lancaster, Pa. Nov 22 1t

FOR SALE, when eight weeks old, six puppies out of my blue belton setter Mell, by Bob Boy. They are black and white. Two of them are black, white and tan, and are almost perfect images of their sire. For particulars, address L. F. WHITMAN, 5 City Hall, Detroit, Mich. 1628 1t

DOGS.

DR. HENRY GARDNER, 1,762 Broadway, between 56th and 57th St., New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ag 21t

For Sale.

FOR SALE—A Remington, double-barreled, breech-loading shot-gun; cost \$35; as good as new; will sell for \$60, including reloading tools, shells, etc. Address W. H. MILLER, Sterling Run, Cameron County, Pa. Jan 24 5t

SECOND-HAND—A very fine Tolley breech loader, with two sets of barrels fitted to same stock; one pair 10-bore Damascens and very close shooting, other pair laminated steel and cylinder bore; weight, 9 lbs. and 9 1/2 lbs. This gun was made to order for the owner, and is very superior in every respect. Can be examined at gun store of HENRY C. SQUIRES, 1 Cortlandt street, N. Y. Nov 11

CITY AND COUNTRY PROPERTY bought, sold and exchanged. C. S. PECK, 3 West Twenty-fifth street, New York Sept 12 1y

DECOY DUCKS.

M. C. WEDD Manufacturer of Decoy Ducks, Mallards, Blacks, Canvas-Backs, Blue-Bills and Red-Heads. Extra size and very good, by my customers sending their best models to copy, 50 cents each. 87 Manhattan street, Rochester, N. Y. 117

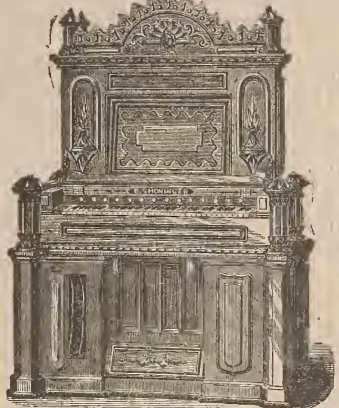
Wanted.

WANTED—An eight-gauge double breech-loader. Address, with description and price, S. E. D., Office of "Forest and Stream." 116 1t

HIGHEST HONORS

AT THE Centennial World's Fair, 1876!

SHONINGER ORGANS



PRONOUNCED UNANIMOUSLY AS THE Best Instruments.

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:

"The B. SHONINGER ORGAN CO.'S exhibit as the best Instruments at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, less liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either shrink, swell or split." THE ONLY ORGANS AWARDED THIS RANK.

There are 50,000 of our Instruments in this and the European countries in use, and they are so made that they will keep in tune, and stand any climate. They contain a magnificent Chime of Bells, tuned in perfect harmony with the Reeds, producing wonderful effects. The Music Rack, when turned forward, will make a splendid writing desk, with our Book Closets and Swinging Lamp or Flower Brackets, with a fine stool boxed free with each Organ, makes the SHONINGER ORGANS the most substantial, convenient and perfect Organ.

ESTABLISHED 1850. We are prepared to appoint a few new Agents.

A liberal discount to the Clergy, Sunday Schools, Teachers, Churches and Lodges. Illustrated Catalogues, with prices, sent by mail upon application to

B. SHONINGER ORGAN CO., 97 to 123 Chestnut Street, NEW HAVEN, CONN.

PIANOS

Retail price \$900 only \$260. Parlor Organs, price \$340 only \$95. Paper free. Dan'l F. Beatty, Wash Dec 20

Piper Heidsieck

AND PIPER "SEC."



For Sale Everywhere.

JOHN OSBORN, SON & CO., 45 Beaver street, New York, and 44 St. Sacramento street, Montreal, GENERAL AGENTS. Oct 11

NOW READY,

THE Sportsman's Gazetteer

AND GENERAL GUIDE.

WITH MAPS AND ILLUSTRATIONS, 900 pp., Price, \$3.

BY CHARLES HALLOCK,

EDITOR OF "FOREST AND STREAM;" AUTHOR OF THE "FISHING TOURIST," "CAMP LIFE IN FLORIDA," ETC.

NEW YORK:

"FOREST AND STREAM" PUBLISHING COMPANY.

The book is a complete manual for sportsmen: It gives every sportsmanlike method for capturing every known game animal, bird and fish in North America.

It designates the proper charges for guns for each kind of game, the various kinds of decoys and blinds, and baits and tackle for the fish. It gives over 4,000 localities where game and fish may be found, specifies the game found in each locality, the hotel accommodation, and the best route to get there. (The preparation of this Directory was in itself a work of great magnitude.)

It gives the scientific name and specific characteristics of each species it describes, with the habitat and breeding season of each—a most valuable contribution to science.

It describes 297 varieties of edible fish alone, that may be taken with the hook; 50 varieties of ducks; 50 varieties of snipe or waders, and the different methods of shooting each.

Its instructions for capturing large game are very minute, and the chapters on woodcraft, outfitting and camping have been pronounced by "El Cazador," of Los Angeles, California, to be simply complete.

Every kind of dog used for sport is designated, and his points for bench judgments fully given. The chapters relating to selection, breeding, rearing, breaking, care and diseases, comprise a several part of the volume. There are 71 prescriptions and recipes given under the revision of the best modern canine therapeutists.

It is in itself the most concise, accurate, instructive, sensible and comprehensive work ever written upon the dog, and his diseases. Any physician can administer the prescriptions with perfect confidence in their safety and efficacy.

It contains very useful recipes and remedies for wounds, bites, poisons, illness, and emergencies of all kinds; for cleaning, repairing, and preserving every implement used for sport; for selection and use of every kind of boat, employed by sportsmen; a reference list of several hundred books in request by sportsmen, and a directory where to buy outfitting goods.

It instructs in taxidermy, and tells how to preserve and mount specimens of animals, birds and fish.

"THE OOLOGIST,"

A MONTHLY JOURNAL DEVOTED EXCLUSIVELY TO BIRDS AND BIRDS' EGGS.

This magazine, the favorite of amateur ornithologists, is now in its third volume. It is replete with all that is new or recent in Ornithology and Oology, and publishes important papers on the rarer of our birds and eggs. It is just the periodical for those making collections of birds and eggs for scientific examination, as the columns are constantly furnishing descriptions of the eggs of new and rare species.

TERMS—Forty cents a year, in advance. Specimen copies and prospectuses only on receipt of stamp. Address,

S. L. WILLARD & CO., Oneida St., Utica, N. Y.

ESTABLISHED 1860.

C. G. Gunther's Sons,

(LATE 502-504 BROADWAY.)

184 Fifth Avenue,

(Broadway and 23d St.) NEW YORK.

SEAL-SKIN SACQUES AND WRAPS, FUR-LINED CIRCULARS AND CLOAKS, FUR ROBES, MATS, COLLARS & CLOVES.

ALL IN LARGE ASSORTMENTS AND AT LOW PRICES.

N. B.—Orders by mail or information desired will receive special and prompt attention. Dec 18 5t

BALLARD'S FLEA KILLER!

FOR THE DESTRUCTION OF FLEAS On Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.

NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.

Price 50 Cents per Package.

Will be sent postage paid on receipt of price-prospectus.

LAZELL, MARSH & GARDINER, 1719 14 10 GOLD STREET, NEW YORK.

SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped.

F. O. De LUZE, 13 South William Street, N. Y., Sole Agent. BROWN & HILDER, St. Louis, Western Agents. For sale in cases of 112 pounds.

Fleas! Fleas! Worms! Worms!

STEADMAN'S FLEA POWDER FOR DOGS.

A Bane to Fleas—A Boon to Dogs.

This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.

Price 50 cents by mail, Postpaid

ARECA NUT FOR WORMS IN DOGS

A CERTAIN REMEDY.

Put up in boxes containing a dozen powders, with full directions for use.

Price 50 cents per Box by mail. Both the above are recommended by ROY AND GUN and FOREST AND STREAM.

W. HOLBERTON, 102 NASSAU STREET. Oct 12

Gunpowder.

Warren Powder Mills

MANUFACTURERS OF

BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS—Eureka, Continental "Border Rifle," Snap-Shot, and Warren Sporting Cannon and Musket, U.S. Standard. The above can be had of the dealers, or at wholesale at the office, 27 Deane street, Boston, Mass., and of the agents, JOHN P. LOVELL & SONS, corner of Washington, Cornhill and Brattle streets, Boston, Mass. 1879

THE

HAZARD POWDER CO.,

MANUFACTURERS OF

GUNPOWDER,

Hazard's "Electric Powder."

Nos. 1 (fine) to 6 (coarse). Unsurpassed in point of strength and cleanliness. Packed in square canisters of 1 lb. only.

Hazard's "American Sporting."

Nos. 1 (fine) to 6 (coarse). In 1 lb. canisters and 6 1/2 lb. kegs. A fine grain, quick and clean, for upland prairie shooting. Well adapted to shot-guns.

Hazard's "Duck Shooting."

Nos. 1 (fine) to 5 (coarse). In 1 and 5 lb. canisters and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzle or breech-loaders.

Hazard's "Kentucky Rifle."

FFFG, FFG, and "Sea Shooting" FG, in kegs of 25, 12 1/2 and 6 1/2 lbs, and cans of 5 lbs. FFG is also packed in 1 and 1/2 lb. canisters. Burns strong and quick. The FFG and FFG are favorite brands for ordinary sporting, and the "Sea Shooting" FG is the standard H.H. powder of the country.

Superior Mining and Blasting Powder. GOVERNMENT CANNON & MUSKET POWDER; ALSO, SPECIAL GRADES FOR EXPORT, OF ANY REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER.

The above can be had of dealers, or of the Company's Agents in every prominent city, or wholesale at our office, 88 WALL STREET, NEW YORK.

ORIENTAL POWDER MILLS MANUFACTURERS OF ALL KINDS OF GUNPOWDER

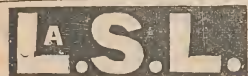
Office—13 BROAD STREET, BOSTON.

BRANDS—DIAMOND GRAIN, FALCON DUCKING, WILD FOWL SHOOTING, WESTERN SPORTING, (Oriental Rifle.)

The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES.

J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. Cohn & Wheeler, Agents, 9 State St., Chicago, Ill. C. J. Chapin, Agent, 215 Locust St., St. Louis, Mo. Agencies in the principal cities in the United States.



A SPLENDID OPPORTUNITY TO WIN A FORTUNE. SECOND GRAND DISTRIBUTION, 1878, AT NEW ORLEANS, TUESDAY, FEB. 12. Louisiana State Lottery Company. This institution was regularly incorporated by the Legislature of the State for Educational and Charitable purposes in 1868, with a capital of \$1,000,000, to which it has since added a reserve fund of \$350,000. ITS GRAND SINGLE NUMBER DISTRIBUTION will take place monthly on the second Tuesday. It never scales or postpones. Look at the following distribution:

Table with columns for prize amounts and ticket counts. CAPITAL PRIZE, \$30,000. 100,000 TICKETS AT TWO DOLLARS EACH. HALF-TICKETS, ONE DOLLAR. LIST OF PRIZES: 1 Capital Prize, \$50,000; 1 Capital Prize, 10,000; 1 Capital Prize, 5,000; 2 Prizes of \$2,500, 5,000; 5 Prizes of 1,000, 10,000; 100 Prizes of 100, 10,000; 200 Prizes of 50, 10,000; 500 Prizes of 20, 10,000; 1000 Prizes of 10, 10,000. APPROXIMATION PRIZES: 9 Approximation Prizes of \$500, 2,700; 9 Approximation Prizes of \$300, 1,230; 9 Approximation Prizes of \$100, 900.

1587 Prizes amounting to \$110,400. Responsible corresponding agents wanted at all prominent points, to whom a liberal compensation will be paid.

Application for rates to clubs should only be made to the Home Office in New Orleans. Write for further information to H. A. DAUPHIN, P. O. Box 692, New Orleans, Louisiana, or to

B. FRANK MOORE & SON, 317 Broadway, New York City. All our Grand Extraordinary Drawings are under the supervision and management of GENEVALES G. T. BLAUFRÉARD and JEREMIAH A. RILEY. The next drawing occurs Tuesday, March 12, 1878.

N.Y. Newspaper Mailing Agency

With the latest improved Newspaper Folding and Mailing Machines, No. 13 Spruce street. JAMES BRADY, Manager and Proprietor.

Sportsmen's Goods.

BOSTON

SHOOTING SUIT.

Manufactured only by

G. W. SIMMONS & SON, BOSTON, MASS.

THE BEST IN USE.

ONLY ONE QUALITY MADE AND THAT IS THE VERY BEST.

Flexible, Waterproof, Tan-Color, Duck.

Each article—coat, trousers, vest and hat—has the name and manufacturers' address stamped upon it, and no suit is genuine without it bears this imprint.

The suit can be sent, securely packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit.

We make no discount except to the trade. The price of the suit complete is \$13.

The suit consists of coat, trousers, vest and choice of either cap with havelock, or hat.

The material is of the best quality of duck, waterproofed by a patent process. The color is that known as "dead grass shade."

The seams and pocket corners are copper riveted, and nothing is neglected to make the whole suit complete in every way.

This is what one of our best sportsmen says of it, writing from camp: "Miserable, drenching rain, pouring down in a perfect deluge, as if a second flood had come upon the earth, two portages to cross, and a swamp between them; that was the prospect before we reached our camping ground. Such a swamp, too; almost impassable, for where the ground was firm was an almost impenetrable thicket of thorns and what not, that looked as if it would tear you to pieces. Well, we got to our camp, and I must confess I was agreeably surprised on my arrival. Although I had been nearly eight hours under incessant rain, laboring and striving along under the adverse circumstances above mentioned, yet I found myself comparatively dry, and my clothes without a tear. For the benefit of our brother-sportsmen, let me advise one of Messrs. Simmons' (of Boston, Mass.) Waterproof Suits. Oh! what a relief it was to find one's tobacco was dry, and that one could light a pipe; that you could laugh at your miserable friend, who stood shivering and shaking as if he had the palsy; and then, next morning, oh! what fun it was to see him mending his clothes, while I had not a tear to complain of. Ventilation, also, that great bugbear of waterproof suits, is legislated for in the most ingenious manner. No sportsman should fail to supply himself with a suit which is at once cheap, practical, and will last an almost indefinite time."

Our Leather Jackets and Vests are the great wind protectors. They are made from soft, pliable black leather, flannel lined, and sell at \$9 and \$7.

Our Flexible Tan- Colored Waterproof Leather Coats and Breeches are considered the finest things ever made. They sell at \$22 and \$15.

An illustrated circular, containing full description of each garment, with sample of the material from which made, will be sent free on application.

G. W. SIMMONS & SON, OAK HALL, BOSTON, MASS.

PRICE, BOXED, WITH DARTS, SLUGS, TARGETS, &c., \$10. FULL NICKEL PLATE \$12.



THE NEW IMPROVED AIR RIFLE. Especially Adapted for Target Practice, and Splendid for Shooting Mall Game and touching up CATS or DOGS.

Just the thing for Taxidermists to collect specimens. There is no report or danger attending its use, or any auxiliaries required to operate it. It can be loaded with ease and rapidity. It is extremely simple, and has no delicate parts to get out of order or wear out. For sale by the Trade generally. Sent upon receipt of price or C. O. D. SEND FOR CIRCULAR. H. M. QUACKENBUSH, Patentee and Mfr, Herkimer, N. Y.

Hart's Sportsman's Favorite Metallic Shells. FOR BREECH-LOADING SHOT GUNS.

These Shells are easily loaded, and the caps easily extracted from inside. Head solid and much thicker than any Shell now made, giving a solid set for cone or anvil, which prevents it from driving through or springing a way, thereby causing mis-fires. The Cone is made of nickel, and fastened solid in its place. Neither rusts nor corrodes fast, like movable anvil made from steel. The Nickel Cone also prevents mis-fire when a cap has been left on shell for a few days, which is liable to occur either in steel or iron. These Shells are finely finished, and made any length ordered, from 2 1/2 to 3 1/2 inches. Shells and Loaders and Descriptive Price-Lists can be obtained from all the leading Sportsmen's Houses throughout the country. GEO. E. HART & CO., Newark, N. J. FROM CAPTAIN BOGARDUS, CHAMPION WING-SHOOT OF AMERICA. MESSRS. GEORGE E. HART & Co.—Gentlemen: The fifty Shells I received from you to-day suit me better than any I have ever used. They are stronger and better in every respect, and I shall use them in all my shooting hereafter. Yours truly, A. H. BOGARDUS.

A VICTORIOUS INVENTION The Eagle Claw.

An ingenious device for the purpose of catching all kinds of Animals, Fish and Game. The easy method of setting the Eagle Claw, combined with the simplicity of removing the victim, are among its peculiar advantages. It is immaterial how to place it when set. It may be buried flat in the ground, suspended from the limb of a tree, or, when occasion requires, covered with grass, leaves or other light material without in any way impairing its certain operation. It is adapted for bait of any description, and, when set, no Animal, Fish or Bird that touches the bait can possibly escape. It does not mangle or injure its victims in the slightest degree, nor need they be handled to free them from the trap.

PRICE LIST. No. 1—For fishing and all kinds of small game and animals, sent by mail, 25 cents. No. 2—For catching Mink, Muskrat, Raccoon, large Game, Fish, etc., 75 cents. No. 3, or Rocky Mountain Giant, for catching Bears, Wolves, Panthers, etc. Can be easily set by a boy, and will stand a strain of several hundred pounds. Weight, 10 to 15 lbs. \$10. All goods sent, charges paid, to any address on receipt of price. Address Stent & Co., Mfr's. Agents, 132 Nassau St., NEW YORK. P. O. box 2997. AGENTS WANTED.

SHARPS' RIFLES---MODEL 1878.

ORDERS FOR THE NEW MILITARY AND LONG-RANGE RIFLE ARE NOW BEING FILLED. SEND FOR ILLUSTRATED PRICE LIST. Sharps' Rifle Co., Bridgeport, Conn. NEW YORK WAREHOUSES, 177 BROADWAY.

COLT'S REVOLVERS.

Great reduction in the price of the New Model; 22, 50, 32, 38 and 41 calibres. Send for new reduced price list of Revolvers, Boxing Gloves, Air Guns, Novelties and Sportsmen's Goods.



Fish & Simpson, P. O. Box 4,968, 132 NASSAU ST., N. Y.

W. W. Greener's Patent Wedge Fast, Hammerless Breech-Loader.

THE GUN OF THE FUTURE. It has already made its mark in Great Britain. The self-cocking is effected by the raising of the breech ends of the barrels for loading, and works smoothly and without requiring much force to open the gun and cock the locks. There is a safety bolt at the side which answers for half cock. The mechanism of this action is exceedingly strong and simple, and is better suited for hard work than any other gun in use. W. W. GREENER winner of the great London Gun Trials of 1875 and 1877, beating 121 guns by all the best makers of London, Birmingham, Edinburgh and Dublin. These guns are warranted to kill game at 100 yards. Read W. W. GREENER'S book on Choque-Bore Guns and How to Load, published by Messrs. Cassell, Peter & Galpin, New York.

Sportsmen's Headquarters FOR WINES, LIQUORS AND CIGARS. Outfits for yachting. The camp or field a specialty. Olives by the case, gallon or bottle. THOS. LYNCH, IMPORTER, 99 NASSAU ST., Building, New York. Sept 7



Ronan's Metal Shell Cleaner. Cleans fifty shells in ten minutes. No water used. Knives elastic, self-adjusting, prevent the slipping of wads. Is unequalled as a breech wiper by covering with an oiled cloth. For sale by all gun dealers, or sample sent free by mail on receipt of price, \$1.50, and 12 bore. J. F. RONAN, 788 Shawmut Avenue Boston, Mass. Liberal discount to the trade. Nov 8

Publications.

LONG-RANGE RIFLE SHOOTING.

A Complete History of the International Long-Range Matches, 1873-1877—Complete Elcho Shield Scores—Rules and Regulations of the N. R. A. Etc., Etc.

FULLY ILLUSTRATED

BY THE RIFLE EDITOR OF THE "FOREST AND STREAM AND ROD AND GUN."

Price 25 cents.

NEW YORK.

Published by the Forest and Stream Pub. Co. 1877.

Bound Volumes of Forest and Stream.

EIGHTH VOLUME, NOW READY.

First Four Volumes, \$4 each, Others, \$3.50.

A complete set of the FOREST AND STREAM—seven volumes, bound handsomely in cloth—a valuable library for the sportsman—can now be obtained on application to this office.

BINDERS.

Get your fine books bound. Art Journal bound uniform to London publishers' style. Picturesque America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done into or three days if required.

E. WALKER'S SONS, 14 Dey street.

Camp Life in Florida.

BY CHARLES HALLOCK,

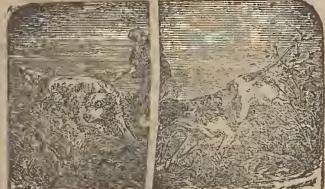
AUTHOR OF THE FISHING TOURIST.

Published by Forest and Stream Publishing Co.,

No. 111 FULFON STREET, NEW YORK,

And for sale by all booksellers. Sent by mail, postage prepaid, on receipt of price (\$1.50) at office of publication.

FRANK SCHLEY'S AMERICAN



Partridge & Pheasant Shooting.

Describing the Habits, Habits, and Methods of Hunting and Shooting the American Partridge—Quail; Ruffed Grouse—Pheasants, with directions for handling the gun, hunting the dog, and shooting on the wing. Price, \$2. Liberal discount to the trade.

To be had at book stores generally. Address, Frank Schley, Frederick City, Md.

KNOW THYSELF

A new Medical treatise, "The Science of Life, or Self-Preservation, a book for everybody. Price \$1, sent by mail. Fifty original prescriptions, either one of which is worth ten times the price of the book. Gold medal awarded the author. The Boston Herald says: "The Science of Life is, beyond all comparison, the most extraordinary work on Physiology ever published." An Illustrated Pamphlet sent FREE. Address DR. W. H. PARKER, No. 4 Bulfinch Street, Boston, Mass.

HEAL THYSELF

The Southern Guide. A finely illustrated quarterly periodical, exhibiting the characteristics and resources of the Southern States. One dollar per year; single copies, 25 cents. Published by BRAMHALL & CO., Washington, D. C.

POULTRY WORLD—A splendidly illustrated monthly, \$1.25 a year. Send 10 cts for a specimen copy. Address FOULTRY WORLD, Hartford, Conn. Dec 17

Publications.

Sportsman's Gazetteer

AND GENERAL GUIDE, BY CHARLES HALLOCK, Editor "Forest and Stream and Rod and Gun."

896 pp., Price \$3.

Tinted Paper, \$4; half-bound mo., \$5.

A complete Dictionary for Sportsmen. Everybody wants it that has a dog, gun or fishing rod. A complete description of all kinds of Game, Fish, etc. Field Sports, Woodcraft, Angling, Fly Tying, Dogs, Dog Breeding, Diseases and Treatment, Boating and Boat-building.

Several thousand localities where game and fish are to be found.

Nothing of the kind ever before published worth ten times the price.

PUBLISHED BY

FOREST & STREAM PUBLISHING CO. 111 Fulton street, New York.

KANSAS.

All about its Soil, Climate, Resources, Products, Laws, and its People are given in the "Kansas Farmer," a 10-page Weekly, in its fifteenth year. Postpaid, three months, 50 cents. Address J. K. HUDSON, Topeka, Kansas.

Has quickly taken a high place among agricultural journals—N. Y. Tribune. We have considered it among the best of our exchanges, and a worthy representative of the West—Practical Farmer, Philadelphia. Our Kansas friends should feel much pride in the high character and sterling worth of their State agricultural paper.—National Live-Stock Journal. We cheerfully credit it will be one of the best edited of our Western agricultural exchanges.—Spirit of the Times, N. Y.

HOW TO LIVE IN FLORIDA. HOW TO GO, COST OF TRIP, COST TO SETTLE, what to cultivate, how to cultivate in etc., etc., all told in each number of Florida New-Yorker, published at 21 Park Row, New York City. Single copy, 10c, one year \$1. 40 Acres Orange Land for \$50. On line of railroad, country healthy, thickly settled. Address B. O'LEVER, Gen'l Agent, Box 652, New York.

Sportsmen's Routes.

FOR FLORIDA

FOR THROUGH TICKETS TO FERNANDINA JACKSONVILLE, ST. AUGUSTINE, SANFORD, ENTERPRISE, and intermediate landings on ST. JOHN'S RIVER and interior points in FLORIDA, by steamship to SAVANNAH, and thence by railroad or steambot, apply to WM. L. JAMES, General Agent.

Philadelphia and Southern Mail S. S. Co., Pier 22 South Delaware Avenue, Phila.

Dec 14-17

"The Bermudas."

NOW A FAVORITE AND DELIGHTFUL WINTER RESORT, is reached in seventy hours from New York, and being surrounded by the warm waters of the Gulf Stream enjoys an equable temperature of about 70 deg.

The elegant British Steamships "Bermuda," and "Camilla," 1,000 tons, fitted expressly for the passenger travel, are dispatched from New York for Bermuda fortnightly, making connection at Bermuda with steamers for St. Thomas and West Indies. For full information apply to A. E. OUTERBRIDGE, Agent, 29 Broadway, N. Y. Dec 21 17.

St. Paul and St. Louis Short Line.

Burlington, C. Rapids & North'r Railway.

QUICKEST, CHEAPEST AND BEST

TWO PASSENGER TRAINS EACH WAY DAILY crossing and connecting with all East and West Lines in Iowa, running through some of the finest hunting grounds in the Northwest for these, Ducks, Pinnated and Ruffed Grouse and Quail. Sportsmen and their dogs taken good care of. Reduced rate tickets of 50c or more on application to General Agent, Cedar Rapids. G. J. IVES, E. F. WISSELOW, Gen. Passenger Agent.

Sportsmen's Routes.

REDUCTION OF FARE.

\$3 NEW YORK TO BOSTON VIA THE Fall River Line To Boston and Return, \$5.

Magnificent Steamers NEWPORT and OLD COLONY leave New York daily (Sundays excepted) at 4:30 P. M. This is the only Sound Line giving passengers a FULL NIGHT'S REST. Passengers take any one of the FIVE MORNING TRAINS from Fall River to Boston.

NEW YORK AND PHILADELPHIA NEW LINE BOUND BROOK ROUTE, FOR TRENTON AND PHILADELPHIA.

COMMENCING NOVEMBER 26, 1877. STATION IN NEW YORK—Foot of Liberty St. N. R. Leave New York for Trenton and Philadelphia at 6:30, 9:30, 11:30 A. M., 1:30, 3:30, 5:30, 12 P. M., and at 4 P. M. for Trenton.

Leave Philadelphia from station North Pennsylvania Railroad, Third and Banks streets, at 12:05 1:30, 3:30, 5:30, 1:30, 3:30, 5:30 P. M. Leave Trenton for New York at 1:30, 6:35, 8:05, 10:20 A. M., 12:15, 2:15, 4:10, 6:15 P. M.

Pullman Drawing Room Cars are attached to the 9:30 A. M., 9:30, P. M. trains from New York and to the 7:30, 1:30, 3:30 P. M. trains from Philadelphia.

SUNDAY TRAINS—Leave New York and Philadelphia at 9:30 A. M., 5:30, 12 P. M. Leave Trenton for New York at 1:30, 10:20 A. M., 6:10 P. M.

Tickets for sale at foot of Liberty street, Nos. 529 and 944 Broadway, at the principal hotels, all offices of the Erie Railway in New York and Brooklyn, and at No. 4 Court street, Brooklyn. Baggage checked from residence to destination. Sept 17 H. P. BALDWIN, Gen. Pass. Agent

GREAT SOUTHERN Freight & Pass'ger Line, VIA

Charleston S. C. The South and the Southwest AND THE

FLORIDA PORTS, Wednesday and Saturday At 3 o'clock P. M. From Pier 27, N. R.

CITY OF ATLANTA, CHARLESTON, Capt. M. S. Woodhull. Capt. R. W. Lockwood. SANTIAGO DE CUBA, G. W. CLYDE, Capt. S. Crowell. Capt. Ingraham.

The above steamers have been handsomely fitted up for the convenience of passengers, and are unrivalled on the coast for

Safety, Speed and Comfort.

Close Connections at Charleston with the favorite and well-known Florida packets, DICTIONATOR, Capt. Tonal; CITY POINT, Capt. Scott, for FERNANDINA, JACKSONVILLE, ST. AUGUSTINE, PALATKA, ENTERPRISE, MELONVILLE and all points in Florida.

EXCURSION TICKETS AT REDUCED RATES.

Insurance to destination ONE-HALF OF ONE PER CENT.

Goods forwarded free of Commission. Passage tickets and Bills of Lading issued and signed at the office of JAMES W. LINDALD & CO., Agents, Pier 27, N. R., foot Park Place. Office on the wharf.

W. P. CLYDE & CO., No. 6 Bowling Green. Through Freight Tariffs, Passage Tickets by all routes and to all points in the South and Southwest, and further information can be obtained at the office of BENTLEY D. HASELL, General Agent, Great Southern Freight Line, 317 Broadway, corner of Thomas street. Oct 11 3m

TO SPORTSMEN:

THE PENNSYLVANIA R. R. CO.

Respectfully invite attention to the

Superior Facilities

afforded by their lines for reaching most of the TROTTLING PARKS and RACE COURSES in the Middle States, the lines being CONTINUOUS FROM ALL IMPORTANT POINTS, avoid the difficulties and dangers of reshipment, while the excellent cars which run over the smooth steel tracks enable STOCK TO BE TRANSPORTED without failure of injury.

The lines of

Pennsylvania Railroad Company

also reach the best localities for

GUNNING AND FISHING

in Pennsylvania and New Jersey. EXCURSION TICKETS are sold at the offices of the Company in all the principal cities to KANE, RENOV, BEDFORD, CRESSON, BALSTON, MINNEQUA, and other well-known centers for

Trout Fishing, Wing Shooting, and Still Hunting.

Also, to

TUCKERTON, BEACH HAVEN, CAPE MAY, SQUAN, and points on the NEW JERSEY COAST renowned for SALT WATER SPORT ASTEL PIN AND FEATHER.

L. P. FARMER, Gen'l Pass. Agent, FRANK THOMSON, Gen'l Manager. Feb 17-17

Old Dominion Line.

The steamers of this line reach some of the finest waterfowl and upland shooting sections in the country. Connections direct for Chicotteague, Cobb's Island, and points on the Peninsula. City Point, James River, Curlew, Florida, and the mountainous country of Virginia, Tennessee, etc. Norfolk steamers sail Tuesday, Thursday and Saturday; Delaware, Monday and Friday at 3 P. M. Full information given at office, 197 Greenwich St., New York, Sep 25 17

Sportsmen's Routes.

ST. AUGUSTINE, FLA., NASSAU, N. P., HAVANA, CUBA.

From Savannah, Ga., to Nassau, N. P., and Havana, Cuba, via St. Augustine, Fla., steamship San Jacinto will sail Jan. 23, Feb. 12 and 26, and every alternate Tuesday. Connecting steamers leave New York on Jan. 26, Feb. 9 and 23.

FOR NASSAU DIRECT,

Steamship Carondelet, February 6 and March 9, and monthly thereafter from Pier 16, East River, New York.

For all particulars, illustrated guide, &c., apply to MURRAY, FERRIS & CO., No. 62 South St.

ONLY DIRECT FLORIDA LINE.

For Fernandina, Fla., Port Royal, S. C., and Brunswick, Ga.

Sailing every FRIDAY from Pier 20, E. R., at 9 P. M.

Close connection made at each port with all railroads for the interior and West and with the steamer Carrie (which has been refurnished) for Jacksonville and the St. John's River.

For through rates of freight and passage to all points in the South and Southwest, apply to G. H. MALLORY & CO., Agents, 153 Maiden Lane, New York.

NEW HAVEN, HARTFORD, SPRINGFIELD, AND THE NORTH.

The first-class steamer ELM CITY leaves Pier 25, East River, daily (Sundays excepted) at 3 P. M. Passengers to New Haven and East at 12 P. M.

NIGHT LINE—THE CONTINENTAL leaves New York at 11 P. M., arriving in New Haven in time for the early morning trains.

Merchandise forwarded by daily express freight train from New Haven through to Massachusetts, Vermont, Western New Hampshire, Northern New York and Canada. Freight received until 5 P. M.

RICHARD PECK, General Agent.

HUNTING;

FOR DEER, BEAR, PARTRIDGES, DUCKS,

Take the Grand Rapids and Indiana Railroad.

FISHING

FOR PICK, PICKEREL, BASS, ETC.,

Follow the G. R. and I.—The "Fishing" Line

Time, New York to Grand Rapids, 37 hours.

EXPENSES LOW.

Shooting season expires December 15. For information as to routes, ratio and best points for the various kinds of game, etc. Apply to

A. B. LEEY, Gen. Pass Agent, Grand Rapids, Mich.

Eastern Agent, 116 Market St., Phila., Pa. Nov 22 17

STONINGTON LINE.

FOR BOSTON AND ALL POINTS EAST.

REDUCED FARE:

Elegant Steamers STONINGTON and NARRAGANSETT leave Pier 33 TRIP RIVER, foot Jay St. at 5:00 P. M. NOT A TRIP MISSED IN SEVEN YEARS.

Tickets for sale at all principal ticket offices. State rooms secured at the lowest rates. Freight Express Company, and at 363 Broadway, New York, and 333 Wash. Union St., Brooklyn.

PROVIDENCE LINE.

Freight only, steamers leave Pier 37, North River, foot Park Place, at 4:30 P. M. Freight via either line taken at lowest rates.

L. W. PILKINS, G. P. Agent, D. S. BABCOCK, Pres.

Hotels and Resorts for Sportsmen.

Wild Fowl Shooting.

SPRINGVILLE HOUSE OR SPORTSMEN'S RESORT, SHINNECOCK BAY, L. I.

By a practical gunner and an old bayman. Has always on hand the best of boots, batteries, etc., with the largest rig of trained wild-goose decoys on the coast. Special attention given by himself to his guests, and satisfaction guaranteed. Address WM. N. LANE, Good Ground, L. I. Nov 8 17

Metropolitan Hotel, WASHINGTON, D. C.

Carrollton Hotel, BALTIMORE, Md.

R. B. Coleman & Co., proprietors of these famous hotels, are well known to the old patrons of the ASTOR HOUSE, N. Y., and ST. NICHOLAS, N. Y.

THE METROPOLITAN

is midway between the Capitol and the White House, and the most convenient location in the city. It has been re-fitted and re-furnished throughout. The cuisine is perfect; the service regular, and charges moderate.

R. B. COLEMAN & CO.

HALSEY HOUSE, ATLANTICVILLE, LONG ISLAND,

is nearer New York City than any house bordering on Shinnecock Bay. Is as near, and has good shooting grounds, and as experienced attendants (with live geese and other decoys, batter, etc., always on hand) nearer the station; the largest and the best kept house in the bay. L. I. R.R. to Atlanticville station. Fare, \$2. Stage meets all trains. W. F. HALSEY, Owner and Proprietor.

Atlanticville, L. I., Oct. 30, 1877. Oct 25

Hotels and Resorts for Sportsmen.

C. M. BRENNAN,

OLD KENTUCKY BOURBON & MONONGAHELA  
South Clark Street, Chicago.

Guns, Rifles, Etc.

Second-Hand Guns

AND  
SPORTING GOODS,  
WHICH CAN BE BOUGHT CHEAP AT

J. F. MARSTERS,  
125 NASSAU ST., N. Y.

- One Scott Premier 10-gauge choke-bore, weight 9 lbs., in first-class order, with case, price... \$225
- One Remington Sporting Rifle, made to order, pistol grip, rubber heel to prevent recoil, .44-calibre..... 50
- One Hollis' 10-bore, 9 lb., pistol-grip, re-coiling locks..... 70
- One Remington Military Rifle, 1,000-yard range. 15
- One French Double Gun, pin-fire, 10-gauge..... 25
- One More & Harris Muzzle-Loader, 10-gauge, 8 1/2 lbs., double gun..... 35
- One Hollis' Ducking double gun, 8 gauge, 14 lb. 25
- One Scott Muzzle-Loader, 12 lb., 9-gauge, 34-in. 25
- One Ballard Rifle, 4-cal. 10 shot..... 20
- One Colt's Revolving Rifle, 6 shot..... 18
- One Maynard Rifle, little the worse for wear... 8
- One Single Muzzle-Loader, 10-gauge, cost \$45. 15
- One Single Breech-Loader, Stephen's make..... 10
- One Skeleton Stock Stephen's Rifle, .23-calibre, in case..... 12
- One General Fishing Rod, will make up five different rods, German silver-mounted, cost \$40. 20
- One large German silver trolling reel, holds 600 feet line..... 10

GUNS  
Cheap!

The following Guns, second-hand and in good condition:

- RIGBY, 12-bore, 7 lbs. weight, in case, with implements complete; original cost, \$525; very little used; present price, \$300.
- SCOTT PREMIER, 10-bore, 9 1/2 lbs. in finest case, with implements complete; made to an order given to W. M. Scott in person, and cost \$350 gold; never used; present price, \$275.
- W. W. GREENER; treble wedge-fast; finest quality; 10-bore, 10 lbs.; cost \$475 gold to import; used three years, but sound; highly engraved; present price, \$175.
- TOLLEY, 12-bore, 8 1/2 lbs.; Tolley brand; cost \$90 gold; shot but few times; \$75.
- W. W. GREENER; treble wedge-fast; all improvements; 10-bore, 8 1/2 lbs.; no engraving; used one month; has killed 95 ducks in one day; can be bought now for \$130.
- WM. MOORE; top-lever, double-bolt, Damascus hbls., 12-bore, 8 1/2 lbs.; original cost, \$150; a splendid gun; present price, \$75.
- NICHOLS & LEFEVER; 10-bore, 11 lbs.; beautiful barrels; original cost about \$150; used but few times; present price, \$35.
- SCOTT; 12-bore, 7 lbs.; finely engraved; lever under-guard; horn heel-plate; cost \$140; price, \$75. This gun in splendid condition.
- SCOTT; 12-bore, 8 1/2 lbs.; cost \$125; never used; present price, \$65.
- REMINGTON; two 12-bore, one 10-bore; \$45-gauge; in best condition and good as new at \$30 each.
- WEBLEY; 12 bore; bar-locks; laminated steel barrels; in case, with implements, cost \$100; can be bought for \$50; splendid condition.

The above guns are nearly all the property of gentlemen who have no further use for them, and are sold at a great sacrifice. Each gun is exactly as represented, and will be sent for examination on satisfactory reference, or receipt of sufficient money to pay express charges. List of second-hand rifles next week.

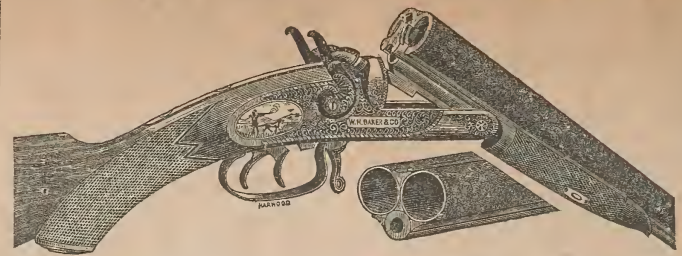
HENRY C. SQUIRES,  
No. 1 Cortlandt St., New York.

Fishing Tackle.

H. L. LEONARD,  
Manufacturer of every variety of  
FINE RODS for SALMON, BASS and TROUT FISHING.

Split Bamboo Rods a Specialty

Every Rod bearing my name is six strands from bunt to extreme tip, and mounted with my patent waterproof ferrule, and warranted against imperfections in material and workmanship.  
Any style of finish, hexagonal or round, as may be desired. Rods of Greenheart, Ash, or Lancewood, MADE TO ORDER.  
I was awarded a MEDAL and DIPLOMA at the Centennial for my Split Bamboo Rods.  
MANUFACTORY, RANGOR, MAINE.  
A variety of my rods may be found at  
No. 19 BEAVER ST.,  
New York City (Up Stairs).



Three-Barrelled Breech-Loading Guns,  
TWO SHOT AND ONE RIFLE.

A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds, giving to sportsmen the very thing so often wanted in all kinds of shooting.  
PRICES—Three barrel, \$75 to \$250. Double barrel shot guns. Damascus barrel, \$50 to \$200. Twist barrel, \$35.  
SEND FOR NEW CIRCULAR.

W. H. BAKER & CO., Syracuse, New York.

IRA A. PAINE'S  
FEATHER FILLED GLASS BALL.

PATENTED OCTOBER 23.

THE "STANDARD" BALL.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments, have secured the services of that well-known sportsman, IRA A. PAINE, to take entire charge of the production of his new patent Feather Filled Ball, which we hold the exclusive right to make and sell.  
While other balls are a drug in the market, over 150,000 of the Paine Feather-Filled Balls have been sold in the last month. This is the only ball made to a scale; every one alike. Out of One Million already sold, not one complains. No Fancy Price, but a fair profit.  
Every ball is weighed and examined, then packed with the greatest care, in barrels of 300.  
Send for price list. Special inducements to the trade.

HEADQUARTERS BOHEMIAN GLASS WORKS, 214 Pearl Street, N. Y.



Bogardus' Patent Rough Glass Balls  
and Glass Ball Traps.

These Traps are the only ones that give satisfaction, as they are simple of construction, easily set, and not liable to get out of order, and they throw the ball in a manner that more closely resembles the flight of a bird than any other trap in the market. The Patent Rough Glass Balls are made of uniform weight and thickness, and have a corrugated surface that strengthens the ball for shipment to any part of the country, prevents the glancing of shot, and thereby insures the breaking of the ball when hit.  
CAPTAIN BOGARDUS was the first to introduce the ROUGH BALL, and at a price far below the smooth ball at that time.  
Balls and Trap can be ordered through all Gun Dealers. Liberal discount to the Trade.

MY IMPROVED TRAP (warranted), which will throw a ball in any direction from the shooter at the option of the puller, is now ready for the market. Price \$8.

HEADQUARTERS FOR BALLS, HAGGERTY BROS., 10 Platt Street.  
FOR TRAPS, GEO. E. HART & CO., Newark, N. J.

Second and enlarged edition of "Field, Cover and Trap Shooting," containing instructions for Glass Ball Shooting, will be ready Feb. 1. Price \$2, by mail, postage paid. Address, Dec 6 11  
Capt. A. H. BOGARDUS, International Hotel, N. Y.

THE UNITED STATES CARTRIDGE COMPANY,  
LOWELL, MASS.

Manufacturers of the  
CENTRAL FIRE, SOLID HEAD,  
BRASS SHELL, RE-LOADING CARTRIDGE,  
Used by the Army and Navy of the United States and several Foreign Governments.  
All kinds of RIM FIRE AMMUNITION.

Special attention paid to orders for TARGET PRACTICE CARTRIDGES.  
Send for Illustrated Catalogue.

WALLACE & SONS, Agents, N. Y. City.

Sportsmen, Attention



Keep Your Feet Dry.

The only premium awarded by the Centennial Commission, Philadelphia, 1876, for Alligator Waterproof Boots and Shoes.

Goods sent to all parts of the U. S., C. O. D.

Catalogues containing full instructions for self-measurement sent free on application.  
503 Broadway, New York.

NEW YORK SHOOTING COAT.

A stylish, handsome Coat. First-class in every particular. Pleasant to wear, durable, and in the end the cheapest.

MADE OF BROWN VELVETEEN.

Pockets and lining made to take out, so that it may be worn for early fall and winter shooting. (Horace Smith, Esq., says: "It is my idea of a shooting coat. I have worn them for several years, and would have none other.") Price for Coat, \$25; Vest, \$6.50. Also the best brown corduroy pants at \$10 per pair. Make only the one grade, as the cheapest goods do not turn briars and will not give satisfaction.

Also, in addition to the above, I am making a Waterproof Canvas Suit, cut same style as the Velveteen; goods, not stiff and hard, but soft and pleasant to wear; guaranteed to turn water. Sportsmen who have seen it say it is The Best Yet. Cost, \$6.50. For full Suit, \$14.00. I also make the sleeveless Coat; Vest with sleeves if desired. Rules for measurement and samples sent upon application.  
F. L. SHELDON, Rahway, N. J.  
For Sale by Dealers in GUNS and SPORTSMEN'S SUPPLIES.

Sportsmen's Goods.

Sportsmen's  
Emporium.

SHOOTING, FISHING AND CAMPING GOODS  
OF EVERY DESCRIPTION.

Send 10 cents for 60-page illustrated catalogue, with rules for glass ball shooting, hints on camping, shooting and fishing, etc.

TENTS, STOVES, JACK LAMPS, BLANKETS,  
RUBBER GOODS, ETC.

THE NEW TREBLE-BOLT FOX GUN.

Split Bamboo Fly Rods; the best in the market.  
Agent for the celebrated McBride Flies, Good's Moccasin, Thomson's Shooting Boots and Shoes, Leather and Canvas suits of all kinds.  
Holberton's Trout Flies, per dozen, \$1.  
Holberton's full-length Russia-Leather Fly Books.

OUTFITS for FLORIDA AND THE WEST.

Sportsmen's Diary and Notebook, with blank scores and useful receipts, etc., mailed on receipt of 50 cents.

PURDY'S GLASS BALL TRAPS, \$3.50.  
The best for wing practice.

Paine and Bogardus' glass balls; Kay's composition Balls.  
Repairing, altering and boring of guns done in the best manner.

English and American Wading Stockings and rubber goods for fishing and camping.  
Paton's Run-Preventer. Dog Medicines for worms, fleas and mange.

W. HOLBERTON & CO.,  
P. O. Box 5, 109. 102 Nassau St., N. Y.

SPARKS'

Chilled Shot,

RIVALLING THE ENGLISH.

Price, 9 3/4 cents per pound.

MANUFACTURED BY  
THOMAS W. SPARKS,  
121 Walnut Street, PHILADELPHIA  
SUBJECT TO USUAL DISCOUNT.  
Jan 17 1m



JEWELERS AND SILVERSMITHS,  
HARTFORD, CONNECTICUT,  
DEALERS IN  
DIAMONDS, SILVERWARE, WATCHES, JEWELRY, ETC.  
IMPORTERS OF  
FRENCH, GERMAN, AND ENGLISH FANCY GOODS.  
SPECIAL ATTENTION GIVEN TO THE MANUFACTURE OF APPROPRIATE DESIGNS FOR  
Shooting, Boating, Racing, and other Prizes.

OUR  
ILLUSTRATED CATALOGUE,  
CONTAINING  
Three Dozen Wood Cuts of the above and other articles  
in our line, and including the  
GAME LAWS OF CONNECTICUT.  
Mailed to any Address, on receipt of 50 CENTS.

BOATS! BOATS! BOATS!—The lightest and most durable boat in the world. Weight, 25 lbs. and upward, built of white cedar. H. M. SPRAGUE, Manufacturer, Parishville, St. Lawrence County, N. Y. Jan 17 3m

# FOREST AND STREAM

## ROD & GUN

THE AMERICAN SPORTSMAN'S JOURNAL.

Terms, Four Dollars a Year. {  
Ten Cents a Copy.

NEW YORK, THURSDAY, JANUARY 31, 1878.

Volume 9.—No. 26.  
{No. 111 Fulton St., N.Y.

For Forest and Stream and Rod and Gun.  
"Perkins' Pilgrimage."

THE twelfth of October—as bright an autumn day as ever came to gladden the heart and quicken the pulse of a lover of nature—saw "Jim Perkins," the writer, and his six years old infant, with three dogs, Hector, Sport and Kate, wending their way to the depot of the Memphis and Charleston Railroad. Dogs and impedimenta aboard, we rolled out for Memphis. On the train we met that prince of sportsmen, Col. Sherrod, of Alabama, en route for the hunting grounds of the Arkansas River. We also met Capt. Keller, one of the finest wing-shots in North Alabama, and a renowned slayer of the *Cercus virginianus*. With them the time was beguiled by much dog and gun talk, the relation of many anecdotes and moving incidents by flood and field.

Although we had a letter from the General Baggage Master saying that "It had long been a custom on this road to pass sportsmen's dogs free," and in face and defiance of a printed order, the baggage master persisted in demanding *baaksheesh* for the dogs. The question naturally arises why is "this thusly?" Have the officers of the road no authority in the matter?

We do not mind paying a baggage-smasher or any other man a fee for taking care of our dogs; but we do most earnestly protest against this system of bare-faced robbery. The printed instructions to officers and employees of the road, read: "Sportsmen's dogs and guns carried free at owner's risk." The most mighty and puissant baggage master says the officers have no right to give any such instructions; and puts in a pitiful whine about "taking bread out of his children's mouths." Will somebody see to it?

We stopped with John Gaston, who knows how to take care of both men and dogs, and we commend him to all sportsmen who pass that way. Next day we met Guido, who we are glad to state, in the language of the immortal Webster, still lives, notwithstanding the combined attacks of "Dog Whip" and "Neophyte." 'Tis true, he is battle-scarred and stained with gore; but his hand is steady, his eyes bright, and his glorious appetite unimpaired, he can still worry down a couple of dozen, raw or fried. My friend, I congratulate thee; when this other Richmond came into the *Field* I thought thou wert a gouger. With Guido we called on the Messrs. Bryson, and were shown Orgill's champion *Rush*. Any words of commendation from us would be superfluous; he can speak for himself on the show bench. We had the pleasure of meeting the learned and courtly "Jim Davis," who usually gets away with the boys at the trap and in the field. Having seen our friends and made our purchases, we passed the rest of the day lounging in the shade of the elms in the park, feeding the squirrels and listlessly watching the fountain squirt, and, attentively, the pretty girls passing. Our boat was behind time, and we had to wait as patiently as possible. The route was down the Mississippi and up White River to Mount Adams. Sunday we went aboard the boat, and Guido and Mr. Bryson came down to see us off. The former had kindly loaned me his red setter Bryson, son of Rufus, and a first-class chicken dog. The dogs were comfortably provided for on the hurricane deck; then the last box and barrel having been put aboard the bell tapped, and the little *Ruth* loosed from her moorings steamed slowly out, headed down stream; left the city with its big red ice-house and battered elevator behind; passed the powder magazines; passed President's island, glided by low shores fringed with feathery cypress and waving willows; and on by sand bars arid as Sahara, now starting a solitary heron, anon a flock of teal. As the sun went down, clouds, bloody red and royal purple, hid him from sight; a long track of light, reflected from the sky, glittered on the river and stretched far away to the other shore. Behind us—broken by the passage of the boat—the tumbling waves glowed with all the changing colors of the sunset.

We were on deck at an early hour next morning, still steaming on in the mighty Mississippi. Far away on a sand-bar a flock of pelicans—at least a hundred—were drawn up in line like a company of soldiers; these we put to flight by a rifle ball ricocheted among them. A little further on we saw the mouth of White River, looking like a spring branch. Though narrow, it is remarkably free from sand bars, snags and sawyers. Turning from the watery highway we took this little by-path, and, steaming ahead, pass the mouth of the Arkansas River, which now discharges the volume of its waters through White River. A low, dreary, deeply inundated, and almost uninhabited country stretches away on either shore. At the mouth of a little bay we saw a white cross marking the grave of "one more unfortunate" gone to his rest. We amused ourselves during the day firing at herons, egrets and ducks; and at nightfall reached Indian Bay, a famous fishing locality. A darky came aboard with at least a hundred bass and white perch which he offered for a dollar and a half, and they had all been taken within three hours with "out bait."

At midnight we reached Mount Adams, where we were met by our friends. It made me feel wonderfully at home to see a picture of myself—looking calm and serene—in the parlor.

Next day our friend, Col. Crockett, came over and gave us a hearty welcome. Dear old Bob, many a day, in the times that tried men's souls, have we eaten government mule and hard-tack together. Many a night have we lain down side by side beneath the stars.

The morning was devoted to fixing up, and after dinner we started in a light spring wagon behind a fine pair of mules, with seven dogs racing after us. After a pleasant drive we reached the prairie, and at the first "burn" Byron and Kate began drawing. Mr. Price and Perkins sat on the front seat, the latter gun in hand. Just then some of the other dogs ran in, and up whirred a grouse. "Mark! mark!" Jim cut away, and at the report another arose, giving him as fair a side shot as could be wished, but both whizzed away unharmed; and Jim declared they looked bigger than turkey gobblers.

At dark we reached the ranche. Here Mr. Price has fitted up a comfortable log-room for the accommodation of himself and friends. After a hearty supper we all turned in and slept the sleep of the blessed. At sunrise we were astir, Price and I in the wagon, Col. Crockett, Perkins and Trice on mules. We started in line, the dogs ranging ahead. The level prairie stretched away in front, dotted here and there with small clumps of trees, and enameled at intervals with a "burn," the bright green contrasting beautifully with the dead grass of the prairie.

There was not a breath of air stir. The sun shone gorgeously, and, exhaled by his beams, a thin wreath of vapor like a "filmy veil of misty lawn" hung over the motionless grass. Herds of fat cattle, washed clean by the recent rain, were feeding on the burns, and lent an air of pastoral beauty to the scene. As we moved on Byron and Hector commenced drawing, and soon came down to a stand. The other dogs closed in and backed them. It was a magnificent picture, seven dogs standing on the bright green burn, rigid as if carved in marble, and in attitudes as various as their various colors. Where is the sportsman whose heart would not thrill at the sight of such a picture? But some of the dogs were too eager and ran in, and flushed half a dozen grouse. One came back, and balanced on sailing wings, cleaved the air high above our heads, going like a cannon ball. Perkins turned in his saddle, pitched up his gun. "Too far," yelled Bob. A puff of smoke, a loud report, and the grouse struggled convulsively upward, wavered, then recovered, and flew on a hundred yards, seemingly untouched; then suddenly, as if just stricken, it fell like a stone.

"Hurrah for Jim." "Good shot!" greeted him on all sides. A little further on another covey was stood down. As they rose, Perkins made a good right and left shot, bagging both birds, and *Tim* knocked down one. The birds were quite wild and many got up out of gunshot. Seeing I would have a better chance with my own dogs, I exchanged my seat in the wagon for a place on deck of a mule. Pretty soon I marked down a small covey, and going up the dogs stood them, Kate standing like an old stager. The "muel" was perfectly steady, and riding up to the dogs, with a *flurr, flurr, flurr*, the birds rose. As two crossed in their flight, I cut away and downed them; the smoke hung in the air, and I could not get in the other barrel until the rest of the covey were nearly out of gunshot. The dead birds were retrieved and we went to where the covey was marked down. Here they lay well, and five more were brought to bag in a few minutes. Thus we shot until a violent rainstorm forced us to beat a retreat to the ranche.

We agreed to try the deer next day, and started early, going west from the ranche. A bright, warm day, the prairie, treeless and vast, stretching in airy undulations far away. We rode fifty yards apart, and had gone two or three miles when pop, pop, pop from the other end of the line—"too far," no venison. Anxious for Perkins to bag a deer, I had exchanged mules with him, and got on one wilder than the wild, wild ducks—and if he was not a buck himself, he certainly was a *bukker*.

All at once, right from under his feet sprang a monstrous stag, flaunting his flag and bearing a big rocking-chair on his head; he scuds away through the tall grass at a Ten Brock lead, nearly frightening the soul from my fearful jug-head. Turning in the saddle, I twisted around until my spinal column had about reached its rotary limit, and fired. Five drachms of powder behind nine "blue whistlers" made a report like a young cannon. Perhaps that animal did not get away from there! And the last I saw of the gallant stag, bearing his branches sturdily, he pitched—head and tail up, venison hams and all—into the timber of Big Island, saluted by a parting shot from Perkins. Riding over the prairie we saw many fresh beds where the deer had recently lain, but the ground was too wet for them. We tried the timber, and some of the party got a shot or two at long range. Emerging from the island, black and threatening clouds were piled up in the west, hiding the sun, and bringing over me a feeling of mysterious dread and nameless apprehension. In antebellum years I had hunted these prairies, and remembered a day—cloudy and dark—when I had been lost, and had ridden for hours before I could find my way to camp. It seemed but yesterday. "*Heu fugaces laniatorum anni!*"

"How the winters are drifting like flakes of snow,  
And the summers like buds between."

I recalled the form and feature of each comrade, and all the incidents of the hunt. In the full strength of mature manhood, all but one have passed away—gone now, alas! to the everlasting hunting grounds. But why recall the past? Four

deer bounding over the prairie bring my thoughts suddenly back to the everliving present, and I dig my spurs into Balaam in the vain effort to urge him into a run to head them off from the timber.

Away to the west we see the rain, in long, slanting lines pouring down on the sodden prairie, and "lite out" for camp. But we are soon overtaken by a blinding rain storm. The tall grass plots us in our faces, and dashes the water into ears and nostrils; and dragged and dreary we plod along in single file, for six weary miles, and thus reach the ranche.

Dumb and drenched we are restored to speech by dry clothing and a smoking supper, forestalled by something hot all round. Gayly the evening passed in song and story; and late at night we spread ourselves to sleep, and soon all hands were bumping phantom bucks in the boundless prairies of mysterious dreamland.

I will not weary you with a further recital of the incidents of the hunt. In the amount of game bagged it was not a success. Each day it rained, and the last I shot ducks from the wagon, as they rose from the prairie, now converted into a sea of water, and we had to strike out for Mount Adams to keep from being cut off by the rising La Goul. But we had lots of fun and met with a whole-souled welcome that did our hearts good. And our pilgrimage will ever be remembered as an oasis in life's desert.

I met those whom I had long loved and from whom I had long been separated. Jim learned to distinguish a grouse from a gobbler and made the leading score. I took on five pounds, honest avoirdupois, and came home feeling ten years younger.

Our thanks are due, and we hereby tender them, to the Messrs. Price, for their generous hospitality; to Col. Crockett; to friend *Tim*; to Capt. Harry, of the steamer *Ruth*, and to Capt. Postal, of the steamer *Hard Cash*; to the Messrs. Bryson for kind attention; to Wheately, for his many courtesies, and especially, oh! Guido, for thy dog and thy "Injun rubber overcoat;" and last, though not least, to the fair ladies who fixed us that big box of good things—not forgetting the little brown jug—*mille graces*.

We would say, *en passant*, that a most enjoyable voyage might be made in a small steam yacht up White and Little Red rivers. The fishing is good and the trip could be extended inland by a wagon from St. Charles or Mount Adams, affording an opportunity for grouse and deer shooting.

Arkansas is a splendid game and fish country—a land that literally flows with milk and honey. We saw no "peach and honey."

The beef cattle are fine, and the prairie butter beats the oleomargarine a long way.

They have a "rosin weed" on the prairie, the rosin from which is chewed by the *Rosalies* of the Grand Prairie, and is warranted by me to pull the filling out of your teeth in little less than no time.

It is the wettest country in wet and the driest in dry weather on the footstool. In the way of "productions," we saw a sassafras tree fifteen feet three inches in circumference, five feet from the ground; and a sturgeon five feet nine inches long, with four barbels on the end of his snout, and his mouth below his shirt collar, which is, I believe, fashionable with his branch of the *Canoid* family.

There was shipped from Mount Adams last year, 1,300 prairie chickens, 100 ducks, 1,120 rabbits and hares, 298 quails, 240 pigeons, 302 squirrels and 99 deer.

We spent a pleasant day at the elegant home of Col. Crockett, where we saw the portrait of his grandfather, the renowned "Davy Crockett." It is not the picture of a rough frontiersman, but has a patrician face, lustrous brown eyes, straight nose, and a fine head. What visions of the Alamo were conjured up by the sight of that picture; of Travis, of Bonham, of Bowie and of the others, who there made a resistance worthy Leonidas and his Spartans.

We held in our hands the old rifle the hero of the Alamo once used. It is still in perfect repair, and shoots as accurately as when he drew a deadly "head" through its notched sight; silver-mounted, with curved maple stock and pistol grip. On the barrel is the following inscription, in gold letters: "PRESENTED BY THE YOUNG MEN OF PHILADELPHIA TO THE HON. DAVID CROCKETT, OF TENNESSEE."

Behind the front sight is a gold arrow with the motto—his motto—"Go ahead." In front of the guard is the Goddess of Liberty with the motto, "The constitution and laws." A silver grease box with a coon engraved thereon. A silver deer's head adorns the check piece, and a carved alligator ornaments the guard. On the lock plate a squirrel is engraved, and the maker's name, "Constable, Holyland, New York."

If it had not been Sunday we would have fired a few shots with this curious old rifle.

That night we heard the whistle of the steamer. The farwells were said. We went to the landing, and far up the river a green light and a red one showed high above the water. The regular stroke of the wheel was heard, and the little *Hard Cash*—looking in the brilliant moonlight like a pile of cotton bales with a couple of smoke stacks sticking out of it—rounded to, landed, and going aboard we commenced our voyage homeward.

At Indian Bay, trolling with a Whitehall spoon half an hour, we caught seven fine bass and one four-pound channel cat being hooked, and the rod handed to the *infant*, he hauled him ashore with mighty exultation.

The next morning found us in Memphis, and [the next

safely at home. Baring the rain it was one of the most pleasant of the many hunting excursions of my life. And finally, brethren, if the record of it has interested you and killed one dull hour, when you could neither hunt nor ride—

"Not in vain  
We move the sandal-shoon and scallop-shell."

Nov. 1, 1877.

GUYON.

### EAST TENNESSEE.

EDITOR FOREST AND STREAM:

That part of the State of Tennessee included within the Counties of Anderson, Bledsoe, Blount, Bradley, Campbell, Carter, Claiborne, Cocke, Grainger, Greene, Hamblen, Hamilton, Hancock, Hawkins, James, Jefferson, Johnson, Knox, Loudon, Marion, McMinn, Meigs, Monroe, Morgan, Polk, Rhea, Roane, Scott, Sequatchie, Sevier, Sullivan, Union and Washington, is familiarly known as East Tennessee, and lies wholly within the great valley between the Unaka Chain of Mountains on the east and the Elevated Cumberland Plateau on the west. In a recent visit through this part of the State we found much of interest both to the sportsman, stock-raiser, and farmer, and in point of fertility of soil and good climate we were constantly reminded of our old home in Southeastern Pennsylvania. A peculiarity common to this great valley is the way in which its surface is longitudinally fluted by parallel minor valleys and ridges, in which it differs from all other parts of the State.

The whole of East Tennessee is abundantly watered with fine springs and swift running creeks and rivers. In no part of the South is there a finer climate throughout the year than in this section. The country varies from 1,000 to 3,000 feet above the level of the ocean, and some of the mountain peaks of the Unaka range reach the elevation of 6,600 feet. The Watauga, French Broad, Little Tennessee and Hiwassee flow down through this great mountain chain, and along their banks are to be found meadow lands of great richness and fertility, from which very superior hay is harvested. Labor is cheap, as is the case generally throughout the south, ranging from \$3 to \$12 per month. Many of the farms are small, so that the owner is not necessitated to employ much hired help. Stock-raising is a source of much profit in most counties of East Tennessee, and improved breeds of cattle and sheep are being largely introduced since the war. Nearly all kinds of fruit do well, especially apples, peaches and grapes, to which the climate and soil are admirably adapted. Iron, copper and coal abound. Iron of very superior quality is found in Johnson and Carter counties, and the great Duck Town copper mines of Polk County in the extreme southeast part of the State have been profitably worked for a number of years. Many farmers and others from the North have settled in East Tennessee since the war, where they can procure land with fair to good improvements, at from \$10 to \$35, and in a few instances as high as \$75 per acre is asked. Unimproved land includes a great diversity of soil, and prices range from 50 cents to \$6 per acre. The country roads are quite a drawback, as they are mostly poor and badly kept up, except a few of the leading thoroughfares, which are picked or otherwise macadamized.

We have seen along the mountain region, contiguous to the French Broad and Nolichucky, frequently, a small steer hitched in the shafts of a small cart, or seen a man astride an ox riding in company with others on horseback. The farmer lives almost entirely within himself, buying, or, to speak more properly, trading at the country store only for calico, coffee, salt and sugar, in exchange for which he gives chickens, eggs, feathers and dried fruit. In the counties of Johnson and Carter bar iron is considered legal tender, being paid out by the many forges to the workmen, and convertible at any of the stores in exchange for shoes, coffee, sugar, and other articles of domestic use. Excellent water power is everywhere abundant, and good sites for mills or factories can be easily obtained. The East Tennessee, Virginia and Georgia Railroad runs from Bristol to Chattanooga, about 235 miles in length, with a branch from Rogersville Junction to Rogersville of sixteen miles, and a branch from Morristown to Wolf Creek, seven miles from Warm Springs, N. C., of thirty-nine miles in length. The latter road will soon be connected through to Statesville, N. C., via Asheville.

SHETHAR-BOZNAI.

### Fish Culture.

Abstract of the Annual Report of the Fish Commissioners of the State of Virginia for the Year 1877.

Of the 150,000 speckled trout eggs purchased last fall one-half were sent to the Blacksburg hatchery and the other half to Lexington. Owing to exposure to the severe cold weather only about 30,000 of the Blacksburg lot survived, and these were distributed in the streams in the Southwest. At Lexington the result was better, 65,000 being successfully planted in the streams on both sides of the Blue Ridge.

The efforts of the Commission were also directed to the culture of land-locked salmon, of which 10,000 were procured from Professor Baird, and distributed to all the larger mountain streams.

The cost of trout eggs, and the risk of loss attending their transportation, has led to the preparation of ponds and the gathering of spawners, and Colonel McDonald, to whom this part of the work has been intrusted, is sanguine of success in the undertaking. Dr. M. G. Ellzey has been successful in distributing to the tributaries of the Roanoke and New rivers 30,000 trout spawn, these being a part of 75,000 received in a frozen condition at the Blacksburg hatching-house.

Notwithstanding the unprecedented scarcity of shad in the Rappahannock River, Mr. R. Greenlaw succeeded in hatching and turning loose in that river about 700,000 fry. In this department of its work the Commission has received very material aid from the proprietors of seines and nets, who, alive to their own interests, have never failed to render all possible assistance. At the Berkeley Hatchery, on the Herring Creek, a mile inland from the James, Messrs. Nicholas and Page succeeded in hatching 200,000 eggs.

In this department the work of the Commission has been much hampered by the absence of proper facilities, more especially of a steam yacht, suitably equipped, such as the Maryland Commission has found so useful. With this it is

confidently believed that 30,000,000 of shad could be hatched annually at Berkeley.

In the fall of 1876 the States quota of California salmon was turned over to the Maryland Commission, who, in return, deposited of young salmon, in the winter of 1876-77, in the Shenandoah, 78,400; in Occoquan, 16,000, and in Goose Creek, 32,000. Besides these, a large portion of the whole hatch was placed in the Potomac, a stream common to the two States. There is no longer any doubt as to the fact that this fish will flourish in Virginian waters, and return by instinct to its home. In May last a fish was caught in the James, nine miles above Richmond, which was undoubtedly a California grilse, one of the lot planted in 1874-75, and which had straggled back before its time. Of the large number placed in James River, in the winter of 1875-76, we hear that early in April last several were caught nine to ten inches long, twelve miles above Norfolk. They were said to be moving in solid column, and with great rapidity, oceanward, and only the few that fell out of line were captured in fyke-nets. Regarding their success, therefore, as certain, this fall 100,000 eggs were obtained, which were received at the Lexington Hatchery early in October in first-rate condition, and were hatched out with scarcely a perceptible loss. At this writing the fry are being distributed in the upper waters of the James.

During the spring and fall several lots of southern chub, or pond bass, have been taken to ponds in the interior. The Commission have placed a number of red-eyes in the James, above Richmond, and made unsuccessful attempts to stock all the rivers in the State. Futile attempts were also made to introduce the herring into the James, and it is believed that the culture of this fish, which is commercially more valuable than the shad, might ultimately render the James the foremost herring stream on the Continent.

The black bass have multiplied rapidly in the James, and may now be found in greater or less abundance from Richmond to Clifton Forge.

Several pages of this very interesting report are taken up with a discussion of the acclimatization of sea fish in fresh water, a field for wide observation and inquiry, and suggestive of the possibility of greatly augmenting the number and richness of the fresh-water food fishes; and the list of fishes about Norfolk is here cited from the columns of FOREST AND STREAM as a fair sample of what exists all along the coast.

The difficulty connected with the oyster culture is intelligently discussed in the appendix by Mr. Orvis A. Browne, a gentleman thoroughly conversant with the subject, and the Commission reports favoring the sale of oyster grounds to the proprietors of adjacent lands.

The rest of the report proper is taken up with an entertaining essay by the erudite commissioner, Mr. A. Moseley, on the history and progress of fish culture; some well-timed reflections upon the water-wealth of Virginia; the obstacles to fish propagation; dams; and, finally, under the plea that "a Commissioner of Fisheries is expected not only to do everything with small means, but to know everything relating to fish," the writer gives us a real treat of fish lore, that puts the Virginia report this year at the head of all similar documents, at least so far as literary merits go. Altogether this pamphlet is not an unpleasant contrast to the meagre and wholly statistical papers of the earlier days of fish culture.

FISH CULTURE IN OHIO.—Gov. Young, of Ohio, in his late message, states that Mr. John H. Klippart, Secretary of the State Commission of Fisheries, informs him that many citizens of Ohio have made complaints to the State Commission of Fisheries, to the effect that parties resident of West Virginia and of Kentucky placed seines across the mouths or outlets of Ohio streams near the Ohio side, in the season of the year when migratory fishes are seeking the mouths of streams flowing into the Ohio River, thus preventing migratory fishes from ascending and depositing their spawn to restock said streams with desirable food fishes. Many thousands of fry or young fishes of the salmon and shad families have been deposited in the Muskingum, Scioto and Miami Rivers, by order of the Commissioners, during the past three years. These are well known migratory species, and it is claimed that by the interposition of West Virginians and Kentuckians the mature or adult fish are deprived of free access to the Ohio streams, and the work of the Commission is, to a great extent, rendered nugatory so far as benefiting the State of Ohio is concerned, but that the result of their labors inures to the benefit of West Virginia and Kentucky. It is not charged that the residents of these States have by their conduct violated any law, for it is claimed by them—and the claim has been admitted as valid by the Supreme Court of Ohio in the case of Booth vs. Hubbard, 8 O. S. R., page 243, that the boundary line of the State of Ohio, dividing us from these States, is low water-mark on the Ohio side. The Commission of Fisheries are very confident of their ability to stock our streams with the best food-fishes, provided there are no undue interpositions. Brook trout have been very successfully hatched and introduced into Castalia Springs, near the city of Sandusky. Shad, weighing several pounds, have been taken by lake fishermen in the vicinity of the Bass Islands as well as in the Ohio River; and salmon were taken in the Miami and Maumee rivers, and in the lake. All these were either deposited or hatched under the direction of the Commission. The Governor commended this subject to the people, and suggested that a resolution should be sent to Congress asking to change the eastern and southern boundary of our State so that it will be as follows, viz.: Commencing at the middle of the Ohio River, at low water, at the point where the Pennsylvania State boundary line crosses said Ohio River, thence along the middle of the Ohio River, at low water, to that point of the Great Miami River where it touches or intersects the Indiana State line.

WHY FISH IN PONDS MAY BECOME BLIND.—Rochester, Jan. 23.—Editor Forest and Stream: I wish to caution people owning fish ponds against putting the slats on their screens too far apart, as it is a great cause of blindness to fish. The

slats should be put close enough together so that fish cannot get their heads through as far back as their eyes. If they do they damage their eyes, while working to get through, and become blind. I first discovered this fact by keeping fish in cars made of slats, and have since noticed it in ponds. In the cars none of the fish had their eyes hurt because they were so large that they could not get their heads through between the slats as far back as their eyes.

Yours,

SETH GREEN.

—Mr. Frank Buckland is busy collecting salmon eggs in Scotland, to be sent to New Zealand.

### Natural History.

THE WILD OR PASSENGER PIGEON (*Columba migratoria*).—Though not ranked among the game birds, this most beautiful creature affords sport and food for man and boy in various sections of the country. Years since it was very abundant in all the States of New England, and when a boy we killed many of them in the woods of Maine and Massachusetts, where they swarmed in incredible numbers, and were easily slaughtered by guns or taken in the nets of fowlers. But of late years they have greatly diminished along the Eastern coast, migrating to the more abundant harvests of the West. We have killed them within a few miles of Boston, where they swarmed in the woods and hovered over the fields when the summer grain had been gathered in, or later, when the winter wheat had been newly sown. They seem to know the exact time for the late sowing, and would suddenly make their appearance at the time when the tender blades first emerge from the soil. At such times within a few years we have found them in September in the western part of the State of New York, where they remained for a couple of weeks, and did not leave until the grain had gained some little growth, and was not easily to be pulled up by the feathered thieves. We used to station ourselves within easy shot of a dead tree at the edge of the wheatfield, and kill numbers of them when they would alight on the bare branches, before they would drop down in the wheatfield. In New England they were shot by the concealed gunner, from a stand consisting of a long pole, elevated at an angle of forty-five degrees, on an upright much resembling the old-fashioned well-sweep. It was usual to hail with grain the ground beneath it, and the flocks would congregate there for food, first alighting on the pole before they settled to the feast. A raking fire was thus afforded to the gunner, and the result was often very destructive. These birds do not seem to follow the line of coast in their passage, but often pass far into the interior. We have but seldom met them on Long Island, or on the Jersey seacoast, and then only in small, detached flocks. They were attracted to the beaches probably by the pock and bay-berries so abundant there. In some years, however, they collect in considerable numbers on Long Island, especially after strong winds from the North have been blowing from Connecticut, across the Sound. Last year there was scarcely a bird to be seen on this part of Long Island; but two years since they were abundant for a few days, and made good sport for the boys. This bird is formed with great strength of wing, and is capable of very prolonged flights. It is said to travel at the rate of a mile in the minute, and it requires a good shot to stop a single bird on the wing. They collect in certain districts in immense numbers, where they remain until the mast and other food is exhausted. Their great rapidity of flight seems to be associated with great acuteness of vision, for while darting over the country with such velocity they still keep up a strict survey for their fare, and instantly cease their flight at the prospect of food, flying low till they alight near an ample supply. They gather in the West in their vast roosting-places in uncounted millions, finding there abundant food, such as grain, pulse, whortle-berries, holly-berries, etc., and the noise of the vast continuous flock, extending for miles, is said to resemble the rolling of thunder. The air is absolutely darkened by the immense flight. These places are chosen in the thickest and tallest of forests, unobstructed by underwood. They collect on the trees in such numbers that their accumulated weight breaks down the branches, and for years the place is made desolate by the destruction. They are hunted and destroyed by hawks and other birds of prey, but their greatest enemy is man. When their roosting-places are discovered the news is wide spread over the country, and multitudes, intent on sport or plunder, collect in all sorts of vehicles, with every variety of weapon to destroy them. They are shot down with guns and heated down with clubs, and gathered up by thousands on the ground, where they have been precipitated and killed by their own swarming numbers. Nothing is seen or talked of or eaten but wild pigeons. They are bartered up by hundreds and sent off by rail and boat to remote cities, and Washington and Fulton Markets are glutted with them in the season. M. O. L.

FLORIDA NOTES.—Our friend, Dr. W. K. Lente, writing from Lake George, Fla., gives us some pleasant notes of how they pass the winter down there. He complains, too, and not without reason, that in his "Notes on the Wood Ibis," published in FOREST AND STREAM, of Nov. 29, he was badly treated by our composers, and was made to call some of our Southern birds by new and extraordinary names. Never mind, Doctor, we think we can promise that it shall not occur again. But O, why will not contributors print their Latin. Speaking of the Wood Ibis, our correspondent says:

"In answer to your editorial query as to whether I am sure about the Wood Ibis feeding on aquatic plants, I may state that I am not perfectly sure, as so long a time has elapsed since I collected the birds and took notes. These notes being North, I cannot rectify my statement at present; but when the Wood Ibis returns next spring I will examine their stomachs and report. I am very much interested in the report of quail appearing at sea, and I would like to ask you, Mr. Editor, whether it is not very rare for the little Acadian owl (*Nyctale acadica*) to make sea journeys. During November, '76, my friend Tom W. left New York in a sailing vessel for Florida, and when a day's sail from Sandy Hook, being out of sight of land, he discovered in the rigging of the schooner this little owl. After a long chase, he aided by the sailors, captured him. The sailors claimed the bird, but told him that if he died he should have him. The owl died, and Tom has the skin in his possession. I thought it very singular at the time for this rather rare bird to be taken at sea. Tom W. also saw a few golden-crowned kinglets and several species of sparrows, which left during the day.

Some time since, while riding over the pine lands, my horse, a rather nervous animal, shied at some object in the grass, and, on looking ahead, I saw a red-shouldered hawk (*Falco lineatus*) fluttering on the ground. I dismounted, and on approaching the hawk found that a common black snake was entwined about the body, wings and neck, and effectually held his hawkish prisoner. I killed the snake, and then captured the hawk after quite a fight. These hawks eat snakes, and I surmised that, failing to get a good hold on the snake, the latter turned the tables by catching the hawk. Then each found he had caught a tartar. The snake had the advantage, though, as the hawk could not move, and I don't know how this battle would have ended had I not appeared on the scene. We have had cold weather and ice for the past three days, but the orange trees in this vicinity are not injured. We celebrated Thanksgiving in a royal manner—a hunt in the morning and afternoon, and such a dinner of roast turkey and broiled venison in the evening, as only tired and hungry hunters can enjoy.

[We presume that the *Nyctale acadina*, of which our correspondent speaks, was not a free agent in the matter. The chances are that he had been blown out to sea, and sought the ship as a resting-place.—Ed.]

**THE BIRDS OF SOUTHEASTERN OREGON.**—One of the most interesting of the recent additions to our ornithological knowledge which we have lately seen is a paper under the above title by Captain Chas. Bendire, U. S. A. The list, which is printed in the proceedings of the Boston Society, includes 191 species, and is based on observations extended over a period of about three years, viz.: from Nov., 1874, to Jan., 1877. The full notes which accompany the present partial review of the birds of Oregon render it especially valuable, and Captain Bendire's investigations into the birds of the region have brought out one or two new points, one of which is the suggestion that we may possibly have two varieties, if not two good species of white pelican, *P. trachyrhynchus*, in the West.

Captain Bendire is so well known to ornithologists as an indefatigable observer, and one of our first oologists, that it is unnecessary to comment at length upon his paper. We commend it to our ornithological friends.

**TWO SIDES TO THE QUESTION.**—Our correspondent, "Sanger," who writes from Elkhart, Indiana, dissents altogether from the views, so often expressed by writers in these columns, in relation to the preponderance of males over females among the ruffed grouse killed. We have already remarked that unless the question of sex has been in all cases determined by dissection, the statements made on this topic are of little value. "Sanger" says:

"A word about the ruffed grouse: Out of more than a hundred killed this season, not over one-third were males. During the early part of the season the sexes (of the killed) ran about equal, but since Nov. 20 there has been a great scarcity of males—not one in ten. On Dec. 20, hunted in my shirt-sleeves it was so warm; killed a large rattlesnake."

**A RARE BIRD.**—Our friend, Mr. John B. Gilbert, of Penn Yan, N. Y., whose admirable list of the birds of Central New York our readers will remember as having appeared in these columns over a year ago, notifies us of another acquisition to his collection. He tells us that he has just received a young male cormorant (*Graculus allepulus*), killed on Crooked Lake, at Penn Yan, by John Carpenter. It is the first ever killed in that neighborhood so far as known.

**A CURIOUS BAT.**—*Riverside, San Bernardino Co., Cal.*—*Editor Forest and Stream.*—I sent you by to-day's mail a curious specimen of a bat. I send only the head, the other portions of the body being similar to the common kind.

JOHN D. HANDY.

[The bat is *Macrotus waterhousei*, a species found in the West Indies, Florida, Mexico, etc. Its common name is leaf-nosed bat. You will find a full description of it in the report of Lieut. Wheeler's Survey, Zoology, vol. v., p. 80. This admirable work—the mammals by the distinguished zoologists, Drs. Coues and Yarrow, and the birds by Mr. Henshaw—gives a vast deal of interesting information about the animal life of Southern California. We should be very much obliged if you could send us half a dozen complete specimens of this bat.—Ed.]

**ROBIN NESTING UPON THE GROUND.**—In May, 1876, while walking through a roughbroken pasture in Danvers, much overgrown with bushes, my attention was directed to a nest of the robin (*Turdus migratorius*) in an unusual position, by the startled cry of the female as she flew off from the nest. The nest, which was of the normal type, was placed upon the ground at the base of a clump of barberry bushes, in a sheltered position; it contained three eggs. Other instances may be recorded, but I find no mention of them in our standard works upon ornithology.

ARTHUR F. GRAY.

*Danversport, Mass., Jan. 7, 1878.*

[Robins, as is well known, are very irregular in their choice of a nesting-place. We have found their nests on a joint in a barn, on the capital of the pillars of a piazza, and on the side of a perpendicular ledge of rock, but never on the ground.—Ed.]

**A KING PARTRIDGE.**—A correspondent writes from Poughkeepsie, N. Y., under date of January 21:

In a lot of partridges we had brought to us last fall was one that weighed 2½ lbs. We had it mounted on account of its splendid plumage. From your description in FOREST AND STREAM it is a king partridge.

—A Norwalk (Ohio) correspondent sends us in alcohol a specimen, which he thinks a great curiosity, and which he says Mr. S. P. Town, the United States Express Agent at Norwalk, found in a fresh-laid hen's egg, attached to the yolk, and entirely covered by the white of the egg. He wishes to

know what it is. In reply we will say that the specimen promised at first to be puzzling, but a little examination revealed its nature. The egg from which it was taken was a double-yoked one, and what our correspondent sent was simply the second yolk. This second yolk was only partially developed, and the membrane which surrounded it was unusually thick. In fact, as seen by us it resembled the shell membrane rather than the vitelline. This thickening, however, may have been due to its long immersion in alcohol.

BRANT AND QUAIL IN TEXAS.

FORT CLARK, TEXAS, Jan. 5, 1878.

EDITOR FOREST AND STREAM:

Reading to-day your issue of Dec. 27, I see a letter from "P," Galveston, Texas, regarding brant being found near Palestine, Texas, over 100 miles from salt water, though he mentions that he found them in or near a salt lake. It was a new idea to me that brant are not to be found away from salt water. I have frequently found them in large numbers in this section, over 200 miles from salt water, and in pure, clear running water; for instance, I saw several flocks not long ago in the Las Moras River near here. The Mexicans had dammed up the stream for irrigation purposes, causing small ponds to form a few feet deep, and these were full of brant. In the swamp pools were Canada geese, "Mexican" geese and ducks. In Kansas I have also seen them along the line of the K. P. R. R.

Quail are abundant here, and the ground being open prairie covered with thick grass, they afford excellent sport. We have four varieties—the common Bob White; the blue or crested, very similar to the California quail; a speckled or spotted kind, called "Messina" quail, sometimes called "foots' quail," from their habit of squatting on the bare ground and thinking themselves hid; and a fourth variety, called here the black quail. I have been much interested in the attempted introduction of the real Messina quail, and would like to see a description of them.

BUSHWHACKER.

[The "Messina" quail of which "Bushwhacker" speaks is undoubtedly the Messina quail (*Cyrtolinga massena*), while his Blue quail is Gambel's partridge (*Lophortyx gambelli*), and his Black quail is, we presume, the Scaled partridge (*Callipepla squamata*). We have mailed our correspondent a description of the Messina quail, about which so much is now being spoken and written.—Ed.]

WHAT A CROPPIE IS.

ANAMOSA, IOWA, Jan. 21, 1878.

The "crappie," or "croppie," is a fish I have never seen except in the Mississippi River and its tributaries. They more nearly resemble Killipart's, Lake Erie, or grass bass, than any other fish I have ever seen (see Ohio Report for 1877, plate IX., fig. 2). I have no fish before me, and no formula, but, compared with the plate named, I note the following differences: Under jaw not so long or drooping; gill cover not so pointed; scales finer; depth of fish greater in proportion to its length; the swell of the body continuing more nearly to the caudal.

I think them quite valuable for Western waters, particularly so for ponds and sloughs, where the temperature of the water gets very high. I have caught very many in water so warm that I thought no fish could live in it. They are rapidly increasing where they have been planted.

A. H. FRANKS, a sportsman and fisherman of Waterloo, Iowa, writes me as follows: "Heretofore there has been but very few croppies caught. Last season I have been out several times, when we have caught forty or fifty in two or three hours' fishing, some weighing as much as three pounds."

They are free biters, and will take any bait that a bass will take; and fight well. In my description I should have stated that they are the thinnest in proportion to their size, of any of the *Percidae* family with which I am acquainted. Specimen three inches long, being sometimes nearly transparent in some portions of the body. B. F. SHAW.

ARRIVALS AT THE PHILADELPHIA ZOOLOGICAL GARDEN, FOR THE WEEK ENDING JAN. 23, 1878.—Two Chinese geese (*Anser cygnoides*), presented; two marmosets (*Leopoldo jacchus*), presented; two barn owls (*Strix flammea var. americana*), presented.

ARTHUR E. BROWN, General Superintendent.

Woodland, Farm and Garden.

THIS DEPARTMENT IS EDITED BY W. J. DAVIDSON, SEO. N. Y. HORTICULTURAL SOCIETY.

HOUSE PLANTS.—(Continued.)

**BEGONIAS.**—There are many varieties of flowering Begonias which give great satisfaction as parlor plants, and will repay the careful cultivator, principal among which are *B. saundersonii* with its bright green waxy foliage and crimson flowers, seldom to be caught out of bloom either summer or winter; *B. spathulata*, with rounded shining leaves and pearly white blossoms, a perfect treasure to the careful housewife who has but little time to spend over her pets; *B. fuchsioides*, a rather ticklish variety to manage, but giving beautiful coral fuchsia-like drops in profusion when well grown; *B. nitida*, the lovely large waxy leaves, and immense trusses of light-pink fragrant blossoms of which are a flower garden of themselves; *B. velutinosus*, with its rich pink blossoms and easy culture, is also one of the very best, as well as *B. manicata* and *B. hydrocotylifolia*, and the hybrid variety raised between them, with their graceful pendant light-pink lace-like flowers, are all reliable and indispensable window plants.

**Pelargoniums.**—The various varieties of *Zonal Pelargoniums*, *Rose*, *Lemon*, *Apple*, *Nutmeg* and other scented Geraniums, are all very desirable for house culture, and the latter sorts are much admired for their beautifully cut and diversified as well as scented foliage. Of the zonal or horse-shoe varieties, both the double and single sorts are desirable, more especially the dwarfier growing sorts of late introduction, and will well repay a little extra care in cultivation. The variegated varieties, with the exception of a few of the more robust silver-edged and bronze sorts do not seem to have constitution enough to stand either our parlors in winter or our parterres in summer.

**Roses.**—I have great hesitation in recommending these most lovely flowers for house culture. Once in a while we see a plant under careful culture well repaying the care lavished on it, but usually their cultivation is but a thankless task, and between insects, over-watering, want of proper light, dry atmosphere and other ills, the rose emerges in spring a most woe-begone looking object. The most easy to manage are *Agrippina*, dark crimson; *Hermosa* and *Duchess d'Abrantes*, light pink; *Safrano*, buff; *Isabella Sprunt* lemon and perhaps *Bon Silene*, bright pink, though we admit we have never seen the latter in good shape anywhere.

Many other flowering plants can be named that we often see do well, as *Cuphea platycentra*, *Epiphyllum truncatum* (many varieties), specially fine when grafted on *Pereskia* or *Cereus triangularis*, *Pittosporum Oranges*, *Lemons*, *Bowditchias*, *Jasminum revolutum* (yellow), and many others, all good when well cared for. *Iris chinensis* is a plant so easy to manage, and withal so beautiful and fragrant, it should be in every collection; and *Tropaeolum* in their endless variety of colors; *Maurandias*, and many others which will suggest themselves to the reader, not to speak of the *Tradescantia* or inch plant, known also as *Jacob's Ladder*; the *Lysemachia*, the more wort or *Creeping Charlie*; *Saxifraga samentosa*, the *beststeak geranium* or *Aaron's beard*; *Madeira vine*, and many other climbers and trailers that, tastefully trained and arranged, make the window garden really a Bower of Beauty and a joy to the possessor. There are many annuals too that can be made to do duty during the winter and spring months, and that will well repay the care needed to bring them into bloom, such as *Nemophila insignis*, *Lobelia*, *Mignonette*, *Sweet alyssum*, *Collinsia*, *Schizanthus* and many others; the *Schizanthus* is but seldom grown, but is easily managed, and is a most showy and attractive plant. It can be sown in August, and naturally forms a perfect candelabrum when grown. *S. pinatus*, in its many varieties of color, is the best and hardiest of all the sorts, and will well repay a little extra trouble and care. One curious fact connected with this plant is, that it is covered with minute glandular hairs, each tipped with a globule of intensely acrid matter, so acid indeed that to touch it slightly with the tongue is sufficient to cause quite a sensation. To this circumstance is attributed its perfect immunity from insects, some even asserting that it dissolves and digests them.

This is but a partial list of those flowering plants suited for window culture. As before stated, some seem to have the knack of succeeding with more delicately-organized subjects, but the above list will be found to include nearly all the "old reliables." We have purposely omitted mention of such bulbs as *Hyacinths*, *Tulips*, *Crocuses*, *Narcissi*, etc., which are distinctly winter plants, and known as such, the cultivation of which has been before treated of in these pages; at the same time the list is large enough for selection. We cannot each of us grow all the varieties mentioned, but can choose each for himself those which he finds give most satisfaction, and leisurely experiment with the rest. Next week we will follow with short descriptions of a few of the best plants for the window garden, grown for their foliage alone.

**THE AQUARIUM PIGEON SHOW.**—The exhibition of the Columbarian Society, which closed last week, was notable for an unusually large and fine display of birds, the display ranking with the best ever held in England. Among the classes were fine specimens of pouters, carriers, barbs, short-faced tumblers, owls, trumpeters, fantails, turbits, Jacobins, priests, swallows, Antwerps, nuns, magpies, archangels, ice pigeons, Romans, storks, high flyers, bald heads, shields, beards, starlings, breasters, with other varieties; the whole making a collection of more than eight hundred specimens. A pleasant feature of the exhibition was dispatching the carriers for their homes. Just here the information given in another column regarding the wild pigeon will be found of interest.

—The regular monthly meeting of the New York Horticultural Society will be held on Tuesday, February 5th, at No. 55 West 33d street. Mr. F. M. Hexamer will deliver an address on "Small Fruits for the Family Garden."

SPLIT BAMBOO RODS

To our customers and the public:—In reply to the damaging reports which have been circulated respecting the quality of our split bamboo rods, by "dealers" who are unable to compete with us at our reduced prices, we have issued a circular which we shall be pleased to mail to any address, proving the falsity of their assertions.

CONROY, BISSETT & MALLESON, Manufacturers, 65 Fulton Street, N. Y.

The Kennel.

TO CORRESPONDENTS.—Those desiring us to prescribe for their dogs will please take note of and describe the following points in each animal:

1. Age.
2. Food and medicine given.
3. Appearance of the eye; of the coat; of the tongue and lips.
4. Any changes in the appearance of the body, as bloating, drawing in of the flanks, etc.
5. Breathing, the number of respirations per minute, and whether labored or not.
6. Condition of the bowels and secretions of the kidneys, color, etc.
7. Appetite; regular, variable, etc.
8. Temperature of the body as indicated by the bulb of the thermometer when placed between the body and the foreleg.
9. Give position of kennel and surroundings, outlook, contiguity to other buildings, and the uses of the latter. Also give any peculiarities of temperament, movements, etc., that may be noticed, signs of suffering, etc.

FIXTURES FOR 1878—BENCH SHOWS.

- St. Louis Bench Show, St. Louis, Mo., Feb. 19, 20, 21 and 22. Entries close Feb. 5.
- Boston Kennel Club Show, Boston, Mass., March 26, 27, 28 and 29. Dr. E. J. Forster, Secretary.
- Baltimore Kennel Club's Show, Baltimore, Md., April 23, 24, 25 and 26. L. R. Cassard, Secretary.
- The Westminster Kennel Club (New York) Bench Show, Gilmore's Garden, May 16, 17, 18 and 19. Dr. W. Seward Webb, Secretary.

For Forest and Stream and Rod and Gun.  
COLORS OF SETTERS AND POINTERS.

SETTERS and pointers may now be seen of nearly all the colors possessed by any breeds of dogs, although the colors of the latter are more restricted in variety than those of the former. For instance, the pure red or white is not uncommon among setters, but among pointers the pure white is rare and the red unknown. Black and liver color are, on the contrary, common to both, and also white, orange, lemon and tan as concomitant colors. There is but one color that is unknown to either of them, and that is the blue; for the so-called "Blue Beltons" are not of a blue color, as might be inferred from the name. I was once actually asked if I had seen any of the "Blue Belton dogs," and "were they really blue?" The nearest approach to this color that I have seen was the coat of a setter bred by myself; that was of a fine purple hue when I last saw it. Both of this dog's parents were of a rich mahogany red, but at eight months of age the pup had an encounter with a dye pot that was filled with indigo blue color. The color was spilled, and after the dog had rolled in it to his heart's content, the blue was so blended with the natural red as to produce a purple. That was certainly a novel and striking color for a dog. We have all heard much of "blue blood," and the dog alluded to has much of it in its veins, but who has seen a blue-coated dog? Turning our attention to the subject of colors, let us first consider one that is alike common to the setter and pointer—the liver color. This on a setter is apt to be regarded as an indication that the dog thus marked is not a high-bred animal; and if, instead of a bright live color, it should be a dull brown, there is a suspicion that the dog may not be even a thoroughbred setter. A well-bred setter, of solid liver color, with a bright, glossy coat, is certainly a handsome dog. But the dull dead brown and white dogs that one so often sees take no rank for beauty, and this is the least desirable marking of all. Liver color is shown to good advantage by the smooth coat of a pointer, for which it is a desirable standard color; but it ranks low as a color for the setter, although ranking highest for its cousin, the retrieving spaniel. For either setter or pointer the solid liver color is more pleasing to the eye, and therefore usually more desirable than any admixture with white, either in equal proportions or with the white predominating.

Black, if it is a jet, glossy black, is a handsome color shown to especial advantage when trimmed with the tan markings characteristic of the Gordon setters. This color is common to both setters and pointers; but solid black dogs of either breed are not very frequently met with. The tan markings that usually accompany this color with setters are not common with pointers, although I once owned a black and white pointer that was marked with tan over the eyes. Black is to be seen in its purity and mixed with other colors, but any admixture of black with other colors than white or tan indicates indiscriminate breeding in respect to color. The legitimate markings with black are, for setters, as follows: First in order of beauty, to my taste at least, is the rich tan color that should be upon the inner parts of the legs, lining of the ears and a spot over each eye; then the black, tan and white named in the order of prevalence, the white forming a handsome marking, particularly when confined to the feet and breast. A preponderance of white is more often seen with the white and black ticked, or white, black and tan ticked. Finally, there is the simple black and white. Occasionally a setter is seen that is ticked nearly as evenly as the Dalmatian, or "coach-dog." This is a marking that I do not prefer, although associated with some of the finest dogs that I have ever shot over. I refer to those that are ticked all over, and not merely on the feet. I have seen a rare mixture of black and white, that was so even in the coat of a setter as to form an iron gray or black roan color.

White, pure and undefiled, is always pleasing, and a well-bred dog is usually tidy. Yet a very little soiling of a coat of this color produces an unpleasant effect. A solid white color is not so common among pointers as with setters, and is not very common with either. White is seen in combination with all the known colors of dogs, and is especially common as a marking of the chest and feet. It is best known as a concomitant color, comparatively few sportsmen preferring it as a predominant color.

Lemon is a well-known color, but one that has never been obtained as a pure, solid color. It ranks high as a marking of white dogs of both the breeds under consideration. The yellow, to which the term lemon is applied in designating the colors of dogs, does not have the decided greenish tint of the fruit itself, but it is a well defined color, quite distinct from orange, the red that is a component of the latter color forming the distinction. Lemons is a particularly fine marking for white pointers, and as such is not outranked by any other, either for beauty, or as an indication of high breeding.

Red is a color that is in much favor, and it is to be seen in a great variety of shades, from the deep blood-red that often merges into black, to the very yellowish shade that might give a mongrel the cognomen of "yaller dog." In choosing a dog of this color avoid extremes. If a dark shade is preferred, let there be no black hairs or black reflections in the coat. If a light shade is preferred, let it be brilliant and uniform. It is strictly a setter color. Occasionally a pointer may be seen whose markings are reddish, and we have seen a pointer of a reddish brindle that suggested the possibility of obtaining a defined red color.

Red is regarded as typical of the Irish setter, and the deep blood red may be justly so considered. Yet red is also a common color among English setters, which develop the beautiful shade known as mahogany red, but seldom of a deeper shade. I do not know that a solid red English setter has ever been produced, although with some the red predominates over the concomitant white. As an instance of red not being typical of the Irish blood, I may mention the dog Guy, owned by my brother, and well-known locally as "the thousand dollar dog." This high-bred dog was out of the thoroughbred red and white English setter Cora, whose portrait adorned the heading of the *Country*. Guy has not a drop of Irish blood in his veins, yet he is of a beautiful mahogany red, that is shown to great advantage by his thoroughly English silky coat.

Although not of a solid red, he has no other body color except the white on the chest. On account of his color he is generally taken for an Irish setter, but such a silky coat and fine feather is not developed by that breed. This dog has been eminently successful in transmitting his characteristics to his progeny. A dog from one litter developed into a perfect fac-simile of its sire in form, color, and markings, as also a pup of another litter out of a different bitch. All of a litter by this Guy, out of my Cora II, were red, some of them very nearly of a solid color, and in them is a happy combination of the beautiful mahogany red, with the silky coat and gentle

disposition of the English breed. A solid red color is not very common, even among thoroughbred Irish dogs. The chest and feet are usually marked with white, which sets off the red to advantage.

A red setter should have dark eyes and a dark nose. Indeed, this is highly desirable for a dog of any color, although a light-colored nose is allowable for white dogs. Dark eyes are universally desirable. However much beauty of coat there might be it would be lost sight of when looking into a pair of yellow eyes. We have seen a liver-colored pointer of very fine points whose whole appearance was marred by whitish-yellow eyes. A dog that would attract the attention of any connoisseur, yet what a shock to a preconceived admiration is experienced when these yellow orbs are turned full upon you. Whitish eyes are detestable in a dog of any color.

Without exhausting the subject let us now consider some of the considerations that govern a sportsman in the choice of color. Of course every one must be governed more or less by his own taste; yet if one has no decided preference for any special color, let other causes than taste or fancy conduce to his decision in choosing.

In any event select a color that shows good breeding. In individual instances color may be no indication of the qualities, good or bad, of dogs; yet, as a rule, it forms a very important element in deciding upon purity of breed, etc. This is notably true of the Gordon and Irish setters. With many sportsmen the choice of color depends in a great degree upon its special adaptability to usefulness in the field; and if up to the requirements there, no regard is paid to lack of beauty. On this ground the choice differs so much that what one would reject might be the first choice of another.

A sportsman, whose attention was called to the beautiful coat of a red setter, remarked, "Yes, a fine coat, but of a bad color." And this sportsman, desiring a dog solely for use in old fields and wheat stubble, preferred a white dog, that would afford such a contrast with the surroundings as would readily catch the eye. Yet in broom grass the red color would afford the better contrast, and for his own reason white would be there "a bad color." Again, many sportsmen, whose only sport over dogs is in cover, shooting woodcock and ruffed grouse, prefer white dogs because more readily seen. Others, who use their dogs more frequently for snipe shooting, prefer them to be red, because not so readily noticeable by the variety of game that is likely to be encountered. A flock of plovers or ducks at which a shot is desired may be seen approaching, and if at a signal the dogs drop, their color being similar to the surroundings, renders them unobserved, and the sportsman has a shot that would not have been obtained had the dogs been white, black, or any color affording a striking contrast in the landscape. The soiling of a coat that is inevitable, especially when snipe shooting, is much more noticeable upon white dogs than upon red ones, and therefore proportionately offensive to the eyes. A black dog offers sufficient contrast of color, if that is desired, for all sorts of ground, whether it be for pinnated grouse ("chickens"), ruffed grouse, partridges, snipe, or woodcock in birch covers. In an older cover a white dog would be most readily seen. I think that the majority of sportsmen prefer for field purposes the color that offers the greatest contrast to that of the ground most shot over. This is owing in no small degree to the fact that their dogs are not well broken, and out of sight means beyond control.

When a dog ranges a quarter of a mile away from its master, and is purposely deaf to any call, it is, of course, very convenient to be able to see the dog at that distance. But were I so eager to fill the bag as not to spare time to breaking my dogs of faults, I would at least teach them one thing thoroughly, to come to me at once when called, except when standing game. The greatest sport for me is killing game over well-broken dogs, and "the bag" is by no means of first consideration.

The dogs are always of first importance, and they furnish by far the greater proportion of the enjoyment of a day's sport. The shot is only the climax of a pleasure that is to be renewed again and again. "The bag," then, is to me no measure of the amount of pleasure enjoyed. Every true sportsman knows how much more satisfaction is derived from a single brilliant shot than from a dozen others that may be equally successful in contributing to the bag.

I do not wish dogs to range so widely that I know not where they may be. Of course, it is impossible to keep the dogs constantly in view, especially in rank grass or in cover, but in such cases they should be hunted closer than in more open ground, and their whereabouts should be at least approximately known. For thick cover shooting I fasten a bell to each dog (never desiring more than a brace in cover), and use bells of different tones that serve to mark the individuality of the bearers. Thus it matters not to me what colors are worn by the dogs, for I can distinguish each one by sound at a greater distance than would be possible by sight, even were they of a solid white color. When the bells, or one of them, cannot be heard, I call; and if, on repeating the call, there is no response, I know that game has been found. Unlike many sportsmen, I prefer, for many reasons that I will not enter into here, always to flush the game myself and never compel nor allow the dogs to do it. If, however, I use my dogs solely for woodcock shooting I might do otherwise, and I might do otherwise if I could keep such a team of dogs as to have a separate brace for hunting each variety of game that is shot over dogs. In such event I could have red setters and liver-colored pointers for the marshes, white dogs for thick cover, black ones for broom grass, etc. In this indulgence of my preference for red setters, I make no sacrifice of usefulness, but, on the contrary, make a gain in that respect when shooting on the marshes. My experience having been to find other game almost invariably when snipe-shooting, I have usually availed myself of such opportunities for a variety of shots and game. Yet I have known a gentleman who, when snipe-shooting, would shoot at no other game. He was excessively methodical, and when shooting snipe was prepared for no other game. If a duck was flushed within range he would not shoot, because his gun was "loaded for snipe." Yet I have cut down many a duck with No. 9 shot when snipe-shooting. Many years ago, while snipe-shooting over the setter Cora above referred to, the dog came to a stand on the bank of a ditch, and a Canada goose rose and was handsomely cut down by my brother with No. 9 shot.

Very many shots have I had that, I believe, would not have been obtained if the dogs had been white; and, while preferring red as a color for setters on account of its beauty, I find it to be unexcelled in usefulness for all sorts of shooting. In the West and South I do not care to use setters or pointers for snipe-shooting on account of the superabundance of the birds and their habits when found in such numbers, and on account of the prevalence of venomous snakes in the far

South. But in Canada, Nova Scotia and along the Atlantic coast as far as Florida, setters are most desirable, and for many reasons, above intimated, the red color is preferable. For general shooting at grouse, partridges and woodcock, I am well pleased with red, and consider it highly preferable for snipe-shooting. EVERETT SMITH.

## A PIG WITH RABIES.

JEFFERSON, Ohio, Jan. 5, 1878.

EDITOR FOREST AND STREAM:

Dear Sir—In your issue of Dec. 6th, cut from the *San Antonio Express*, an account is given of the death of a boy from the bite of a fox, believed to have been a case of hydrophobia. In the absence of a clear diagnosis of the case your theory of tetanus looks plausible, to say the least of it, and may be accepted as the cause of death in this case. As to foxes having rabies our experience may not be devoid of interest. A. D. 1834, much of northern Ohio was in its primeval state. We let our stock run in the woods. To keep our hogs from straying we fed them a little and furnished them a good bed under shelter near the house. In the fall of 1834 my neighbor was aroused in the night by a commotion among his hogs. With a lantern and club he went out and found a gray fox fighting his pigs. As soon as the man approached, the fox left the pigs, walked boldly up to the man, and was killed with the club. Hearing of the strange conduct of the fox we proceeded to investigate: found one shoat (that would weigh about 100 pounds) with a slight wound about an inch and a half long, midway between the eyes and the end of the nose. The wound looked more like a scratch than a bite. We did not probe it, but apparently it was just deep enough to draw blood. Notwithstanding the assurance that "foxes never run mad," we suggested hydrophobia, and counseled the confinement of the pig, which was followed. In the course of two or three weeks the pig was taken sick, refused food, frothed at the mouth, and went into spasms, constantly snapping at surrounding objects, then falling to the ground would lie in a general tremor. When this passed off he would rise, feebly walk about until seized with another spasm, when he would utter a whining squeal, indicative of great distress, and pass through the different stages above described. The spasms increased in frequency and severity until the pig died. We watched the case with great interest, and diagnosed a well marked and clearly defined case of hydrophobia, superinduced by the bite of a fox. Hence the inference, if not the logical conclusion is, that the particular fox was rabid, but whether spontaneous or by inoculation we have no means of knowing. The idea that the bite of a fox or any other animal could produce rabies when the animal was not rabid is too absurd to require serious notice. By the laceration of veins it might produce tetanus, but could not produce rabies. But did tetanus kill the pig? This disease consists of violent tonic spasms of the voluntary muscles, which may affect the muscles of almost every portion of the body, or it may be confined to the muscles of a single part, like the lower jaw, when the affection receives the name of *trismus*, or to the extensors of the back, causing retraction, termed *opisthotonos*, or to the front part of the body, causing incurvation (*emprostotonos*), or the muscles of the side, causing lateral curvature (*pleurothnos*). In the case under consideration none of the curvatures was present. His snapping jaws prove there was no *trismus*. The only argument for tetanus is the general tremor. What was it? It is claimed that spontaneous hydrophobia is confined to the canine race. According to Linnaeus, Keynard belongs to the same genus, and we see no reason why he should be exempt.

Yours,

SEPTUAGENARIAN.

SCUTELLARIA AS A CURE FOR HYDROPHOBIA.—The *New York Sun* this week makes mention of the possible advantages in using scutellaria in cases where persons have been bitten by mad dogs. The authority of Mrs. Crooks is cited, whose sister was bitten by a mad dog, and who was reputed to have suffered no inconveniences after having had strong decoctions of skullcap given to her. Of course there is no reason why scutellaria should not be tried, though we do not think it would be of any practical use. Skullcap has long been known, and was used twenty-five years ago as a supposed cure for hydrophobia. The action of this plant is prophylactic, and it is excellent as a nerve, but beyond this, as far as hydrophobia goes, its employment, we believe, is useless. It is terrible to think that, as yet, there is no cure for hydrophobia. When a person is bitten by a mad dog, cut out the part, then wash with fuming nitric acid, and immunity from the disease becomes quite possible.

HYDROPHOBIA IN CONNECTICUT.—We regret to announce the death of Dr. L. L. Way, in Hartford, on the 25th, from hydrophobia. In several towns in the State the authorities have ordered the muzzling of the dogs for periods varying from sixty to ninety days.

PITTSBURG DOG SHOW, Jan. 22.—The arrangements for the dog show in the City Hall were fairly good, and the animals seemed well cared for. The attendance was much larger than the managers could have expected, at one day some 2,800 people having visited the show. Your correspondent wandered in amazement among remarkable chickens, ducks, geese and pigeons, and had the opportunity of eating some of the turkeys. The dogs, however, mainly interested your representative. It is not, of course, to be expected that the display would equal in number such high collections as have been made in New York, Boston, Baltimore or Philadelphia, still in the ninety odd dogs exhibited there were some fairly choice animals. Blue-blood is getting to exercise its powers in the City of Smoke, and you may look soon to see as fine a class of animals in Western Pennsylvania as in any other part of the country. There is a good admixture of Englishmen in the working population of Pittsburg, and many of them have brought from the old country their love for dogs.

The following were the prizes, the Sportsman's Association

of Western Pennsylvania heading the list with prizes amounting to \$100, divided up as follows: For the best setter dog, native or imported, \$80; best pointer bitch, native or imported, \$80; best setter bitch, native or imported, \$20; second best pointer bitch, native or imported, \$20. The remaining prizes varied in value from \$5 to \$10.

WINNERS.

Imported English Setter Dog Class—1st, Belton black white and tan, by Dash, out of Daisy. Also, special for best setter of any breed, Frank Bowen, Elmsworth, Pa.

Native English Setter Class—1st, to champion Lark, orange and white, owned by P. H. Morris, New York; 2d, to Sport, liver and white ticked, Mat Miller, Port Perry, Pa.; 3d, orange and white, Graut Forrester.

Native English Setter Dog Class—1st, Jess, orange and white, Dr. Daly, of Pittsburg, Pa.; 2d, Floss, orange and white, by Snow, out of Fannie, J. R. Stayton, Pittsburg, Pa.; 3d, Moll, orange and white, owned by George Andrews, Pittsburg, Pa.

Red Irish Dog Class—1st, Frank, owned by Thomas Marshall, Jr., of Allegheny, Pa.; 2d, Don, all red, by Shot, out of Tan, owned by J. C. Hobaugh, of Greenville, Pa.; no third prize given.

Red Irish Bitch Class—1st, T. M. Marshall, Jr., Allegheny, Pa.; 2d, A. Kramer, Pittsburg, Pa. Special for best setter bitch of any breed divided between Jess, native English, and red Irish.

Gordon Dog Class—No prize awarded.

Gordon Setter Bitch Class—1st, to —, owned by W. H. Barnes, Allegheny, Pa.

Pointer Dog Class—1st, to Rover, liver, Mr. Tremaine (E. H.), Allegheny City; 2d, to Button, liver and white, out of Fan, by imported Bob, J. J. Snellenburg, New Brighton, Pa.; 3d, lemon and white, R. M. Gates, Washington, Pa.

Pointer Bitch Class—1st, to Topsy, black, by Old Philadelphia, out of Nellie, owned by J. J. Snellenburg, New Brighton, Pa.; 2d, liver, by Wm. A. Forse, Johnstown, Pa.; 3d, Rose, liver and white, Dr. Hostetter, Allegheny, Pa.

Native English Setter Puppy Class—1st, Laverack pup Thunder, by Pride of the Border, out of Fairy II, black and white ticked, J. J. Snellenburg, New Brighton, Pa.; 2, liver and white, by Belton, out of Magnet, Frank Bowen, Elmsworth, Pa.; 3d, lemon and white, by Frank, C. Miller, Pittsburg, Pa.

Red Irish Setter Pups—1st, Bob, by Rufus II, out of Moll III, owned by F. H. Tremaine, Allegheny, Pa.; 2d, to T. Ferguson, McDonald, Pa.; 3d, R. F. Patterson, Pittsburg, Pa.

Gordon Setter Pup Class—1st, Nimrod, owned by Edward Browne, Allegheny, Pa.

Pointer Puppy Class—1st, Fisk, liver, by Button, out of Topsy, J. J. Snellenburg, New Brighton, Pa.; 2d, Romp, liver and white, R. M. Gates, Washington, Pa.; 3d, Rapin, liver and white, by Alex, out of Gazelle, J. M. Lytle, Jr., Pittsburg, Pa.

In collies, J. Drake, of Mansfield, Pa., took the prize with Lucy, her puppy also securing an award. W. S. Evans, of Allegheny, was also a winner for sheep dogs. The best greyhound was a slut, the property of John Fawcett. The Beaver Valley Kennel Club, of New Brighton, had quite a good collection of dogs. Your correspondent is indebted to Mr. Gregg, the President, and to Mr. Elben, Secretary, for a good deal of attention. R. A. H.

ST. LOUIS BENCH SHOW.—Mr. Charles Lincoln, Superintendent of the St. Louis Bench Show, informs us that everything is progressing in the most satisfactory way in St. Louis, and that the prospect is that there will be an excellent show. We learn that Gladstone and Nellie, the field trial performers, will be there, but not for competition. The St. Louis Kennel Club have placed the use of their kennel at the disposal of the committee for any dogs that may arrive before the opening of the show. This kennel is situated two miles from the city limits, and Mr. Whitford will see to the dogs. Mr. Dabney Carr has been appointed manager of the department for the display of sportsmen's goods. Mr. C. B. Whitford will take under his care all dogs that may be sent by express. He will be provided with competent attendants. It should be borne in mind that entries will close on the 5th of February. The association has obtained special rates for exhibitors, and all express companies offer to bring dogs or goods for exhibition at one fare, and return free.

JUDGING AT THE ST. LOUIS BENCH SHOW.—*New York, Jan. 28.*—Editor *Forest and Stream*: I am glad to see in your last issue a letter from "Fair Play," on the judging at St. Louis. It is a delicate subject, and I wish to make no reflections, but when prizes, such as are proposed at St. Louis, are awarded for the "best setter in the show," "best kennel," etc., it is due to the gentlemen who have presented these handsome prizes that no one should feel but what he had a fair and equal chance. Many of our sportsmen who own native dogs, believe if no change is made in the present programme, that they will be debarred from securing the valuable trophies. I coincide with your correspondent, and hope the committee will decide to have all the judges who have been appointed for the exhibition to be present, judge the classes named, and then the winner will gain a victory worth wearing. JUSTITIA.

DACHSHUNDE, NOT DOBSHUNDE.—A correspondent is good enough to inform us that we have no right to tack an "s" to Dachshund, when we speak of more than one dog. In German *hund* is singular and *hunde* is the plural. We stand corrected, and trust future kennel clubs will change the English "s" to the German "e," and print dachshunde for one dog, and dachshunde for more than one dog.

RUSSIAN SETTERS.—*Winchester, Jan. 26.*—Will "Amicus Caninum" be kind enough to inform your readers upon what page in "Stonehead" he finds the quotations which he has made in his article on the Russian setter. I have the London edition of '73, but have been unable to find any such statements. On the contrary, he puts down the Russian setter as a distinct breed, and gives nearly four pages mainly in their favor as superior to the English setter. See page 103 to 107 with illustrations. E. A. B.

MONTREAL HUNT CLUB.—At a meeting, Jan. 18, Mr. Crawford was re-elected Master and Mr. Hutchins Secretary.

NAME CLAIMED.—Henry H. Mundy, of Newark, N. J., claims the name of Two-Eyed Sancho for his liver and tan setter pup, ten months old, by T. Forman Taylor's One-eyed Sancho, out of Horace Smith's Gypsie, she by Morford's (Shipman's) Joe out of Nelden's Gypsie.

—Geo. H. Wild, of Red Bank, N. J., claims the name of Pride of Monmouth for his York-Bess red pup, whelped Aug. 23, '77.

BISMARCK.—O. H. Oertel, of Port Richmond, Staten Island, (Jan. 28, 1878), claims the name of Bismarck for his setter pup, by Champiour Joe out of Bess; Champion Joe out of Molly, by Moll; Bess out of Biddy, by Pat.

PUCK AND NELLIE.—Would the owner of these two fine dachshunde, Puck and Nellie, kindly give us his address?

WHIELPS.—*Newport, R. I., Jan. 24.*—Mr. J. N. Howard's Daisy, orange and white, 13 puppies—8 gyppos. Daisy was visited by Tom, an Irish setter, a very fine dog of Mr. Howard's.

—Messrs. Fisher & Bickerton, of Brooklyn (Jan. 28, 1878), announce that their Gordon setter bitch Border Lily has whelped, Jan. 25, four (4), all bitches, to H. L. Leonard's Gordon dog, Pride of the Frontier.

Sea and River Fishing.

FISH IN SEASON IN FEBRUARY.

SOUTHERN WATERS.

Pompano, *Trachinotus carolinus*. Grouper, *Epinephelus nigritus*. Drum (two species), Family *Sciaenidae*. Trout (black bass), *Centropomus viridis*. Kingfish, *Mentidorsus nebulosus*. Striped Bass, or Rockfish, *Roccus lineatus*. Sea Bass, *Sciaenops ocellatus*. Sheepshead, *Achoosargurus probato*. Tailorfish, *Pomatomus saltatrix cephalus*. Black Bass, *Micropterus salmoides*. Snapper, *Lutjanus caesus*. *M. nigricans*.

FISH IN MARKET.—RETAIL PRICES.—The schooner Mary and Carrie, Capt. Moser, while fishing off Squan, N. J., last Wednesday, caught a shark weighing 300 pounds. An effort was made to bring him in alive for the Aquarium, but he died in coming up the Bay, and was delivered to Blackford, in Fulton Market, and was on exhibition for several days. It was what is known as the mackerel porbeagle, *Lamna punctata*. It measured six feet five inches in length. Fish are scarce and prices high. Striped bass, 20 and 25 cents; smelts, 10 to 15; bluefish, 15; frozen salmon, 35; mackerel, 25; Southern shad, 75; white perch, 15; Spanish mackerel, 35; green turtle, 20; terrapin, \$18 per doz.; halibut, 16 cents; haddock, 6; codfish, 6 to 8; blackfish 12½; Newfoundland herring, 6; flounders, 10; sea bass, 15; eels, 18; lobsters, 10; sheepsheads, 25; scallops, \$1.50 per gallon; soft clams, 30 to 60 cents per 100; whitefish 18; pickerel, 15; sunfish, 10; yellow perch, 8; salmon trout, 20; black bass: 18; yellow pike, 12; brook pike, 15; ciscoes, 10; hard crabs, \$2.50 per 100; red snapper, 20 cents.

MASSACHUSETTS.—*Medford, Jan. 26.*—Success at the pickerel grounds still unabated. Two fine "weighters" were drawn through the ice Wednesday, each weighing five pounds. Smelt fishing is carried on quite extensively here on the ice of the Mystic River. The fish demand good prices at the Boston markets. MEMOIR.

KENTUCKY.—*Stanford, Jan. 27.*—During the spring-like weather of last month a Green River farmer near here took his favorite rod—from which line and hook are never taken till to be replaced by a new fifteen center—from an out-door chimney corner where it can always be found when not in use, and in three hours captured sixty-four black bass, ranging from one-half to four pounds weight. They were all taken from one large pool below a mill dam. Sucker fishing will now be in order as soon as waters have cleared and the banks have dried. KENTUCKIAN.

OHIO.—*Wilmington, Jan. 21.*—Several nice strings of bass have been caught in our small streams recently; one fish, 22 inches long, weighing 5 lbs., which is large for our creek or jumping bass. Hastily and truly yours, "POSTED."

HOW AN OLD "SALAR" GOT SALTED; OR, A TRUE STORY VERIFIED.—Our friend Charlie Imbrie (of the firm of Abbey & Imbrie) was currently reported last summer as having outdone all his former exploits in the taking of salmon on his river in Canada. Rumor attributed some small part of his success to his recently invented flies, which he has dubbed the "gipsey" and the "witch." Last week substantial testimony—some solid proof of current quasi fish stories—was brought to us by a messenger in the shape of a fine large salmon salted by such a method that by proper freshening and cooking, it came upon the table equal to a fish fresh from his native river. We were not informed what style of hook captured this salmon, whether it was "witch" or "tother," but it makes no difference now either to us or the fish. Our thanks are due, all the same, for the toothsome gift.

BAITS FOR BASS.

EDITOR FOREST AND STREAM:

Without wishing to be considered as coming in the way of my friend, "P. M.," your Richmond correspondent, I beg to give, in as brief a paragraph as possible, my experience in regard to bait for bass fishing. I have read with much interest all that "Splasher" has said on the subject, and, more recently, have seen very interesting extracts from "Glen Falls" fishing note-book of his experience last season.

During the latter part of July last I paid my usual visit to the mountains of Virginia, where I generally spend a brief summer vacation in fishing. My headquarters were at Millboro, but the fishing ground was in Jackson River in the neighborhood of Clifton Forge, one of the most beautiful spots in all the State. The express train leaves Millboro at 5

A. M. and reaches Clifton Forge before sunrise, so I was always on the ground in ample time. I carried with me, besides my tackle, a bucket full of branch minnows, such as are found in the streams thereabout, a supply of worms, gresshoppers and craw fish, small frogs, or toads. I tried some of all of this bait. The minnows, as far as I can now remember, never attracted a bass, but I took many yellow perch with them, known there as yellow blinds. The worms were also a failure, but the craw fish and frogs never failed. The water was too stout for one to use a float, so in place of a stretcher I put on a good stout hook and upon it used a craw fish. Above the stretcher I used a gray fly and above the fly a hook baited with frog. A novel way, it is true, of arranging one's line, but it proved very effective. I never failed to bring home a fair string of bass and full fish, and sometimes as many as I could carry. The bass would take the frog even after it had been dreadfully mutilated by the fish and been on the hook for an hour. The river bottom is of slate rock and the current generally very swift; at some points, however there are beautiful eddies, and there I had on several occasions much sport with bass weighing from three to five and a half pounds. But there is one point more to be attended to and I will not trespass further on your space. During my fishing I used two flies that I had procured in New York from one of your advertisers (J. B. Crook & Co.) for shad. I intended them for shad in the James River Falls here at Richmond, but I was never successful in taking any, so I determined to utilize them, and tried for bass, and they answered admirably. I thought this fact might be of use to some of my brother anglers. E. H. F.

Game Bag and Gun.

GAME IN SEASON IN FEBRUARY.

Hares, brown and gray. Wild duck, geese, brant, etc.

FOR FLORIDA.

Deer, Wild Turkey, Woodcock, Quail, Snipe, Ducks and Wild Powl.

"Bay birds" generally, including various species of plover, sand piper, snipe, cutlew, oyster-catcher, surf birds, phalaropes, avocet, etc., coming under the group *Limicola*, or Shore birds.

RHODE ISLAND.—*Newport, Jan. 24.*—Very little shooting about weather good for sea fowl. We are to have some live quail distributed on the island this spring. QUANTUM.

RHODE ISLAND.—*Newport, Jan. 28.*—Two of our sportsmen shot ten out of eleven Wilson snipe a day or two ago.

NEW JERSEY.—*Long Branch, Jan. 26.*—There are a great many quail kept over this season, and we shall probably have good shooting next year. E. S. G.

PENNSYLVANIA.—*Titusville, Jan. 20.*—The country here is well adapted to fox hunting, which is a favorite sport. Messrs. Webber, Wheelock and Gettelous are successful hunters. Pheasants and squirrels are abundant in season. We hope through the agency of a recently organized game society to prohibit and so increase the supply of game hereabouts. Laws have heretofore been little heeded. Our sport here is with pheasants, quails, squirrels, rabbits, a few deer and wild cats. G. H. W.

TENNESSEE.—*Memphis, Jan. 16.*—Grassy Lake, 50 miles below Memphis, in Arkansas, and three miles back from the Mississippi, is a famous place for duck shooting. The birds congregate there in vast flocks. Myself and brother in a recent trip there shot 3 deer, 1 bear, 3 wolves, 2 catamounts, 6 wild turkeys, 235 ducks and 6 geese. T. M. B.

KENTUCKY.—*Stanford, Jan. 19.*—The crop of quail has been the largest in years. Average shots have found a bag of thirty to fifty easily made on any good day, and a neighboring sportsman, who is the reputed heir to Peter Sehmil's seven-league boots, has brought one hundred to bag in a day's shooting over an accomplished blue-blood. Two of our boys were out to-day three hours, put up fourteen beaves and bagged thirty whilst on a pull between two stations to catch the return train. Our close season will begin list proximo, and nearly every fowling piece has been "rumpluraydized," as "Opodeldoc" expresses "putting in good order," and put away to remain undisturbed till next October, as we have no spring snipe or summer cock shooting—no marshes in the blue grass. KENTUCKIAN.

FLORIDA.—*St. Augustine, Jan. 20.*—The yacht "Seminole," owned by Commodore A. E. Douglass, of the St. A. Y. C., is absent on an expedition to the Halifax river. The party is composed of Messrs. Douglass, Saville and Blanchard, and will spend some weeks shooting and fishing.

OHIO.—*Circleville, Jan. 23.*—Have had excellent quail shooting the past season. Some duck shooting on our rivers. This game affords most sport in the month of March. G. T.

Wilmington, Jan. 21.—The past season has been the most favorable one in the memory of the oldest inhabitant for the rapid increase of quail in this locality. Weather unusually fine during the breeding season, and many second broods; consequence, multitudes of birds. The shooting season was delightful, and those gentlemen holding white cards with the farmers had an actual surfeit of magnificent sport. Our bags were good for a number of days' shooting—125, 140, 220, 230, 270, 450 and 600. Largest bag in any one day, by one gun, 51, made by Dr. Welch, five hours shooting. During a week's shoot, Mason and Cristy, of Detroit, together bagged nearly 400. One of our Munchausens claims to have killed 1,499, careful record, those on Sundays not scored. Our sportsmen are endeavoring to have our legislators limit the number to be killed by each sportsman to 1,450, so as to prevent their extermination by such prodigies. The stock of birds left over for breeding purposes is simply immense, some farms of 400 acres having no less than ten or fifteen beaves of from ten to twenty birds each; and I am reasonably certain that there is not a small farm in Clinton county without one or more beaves. No snow up to this date, and feed and shelter abundant. If the extremists succeed in passing the law protecting quail for five successive years, the farmers will not grow and gather corn enough to make hominy for their families. "POSTED."

MICHIGAN.—*Muskegon, Jan. 22.*—At the annual meeting of the Muskegon County Sportsman Club, the following officers were elected for 1878: Alex. Rodgers, President; E. P. Elmore, Vice-President; Peter Doran, Secretary, and Herman Voss, Treasurer. The club has about thirty members, and there are some good shots among them. "NATL."

CALIFORNIA.—Wild pigeons are flocking about Napa, furnishing sport ad libitum for the hunter, but proving very destructive to the crops of the farmers.

—Any body wishing wild pigeons may get them by sending to C. Crittenden, Garrettsville, Ohio.







A WEEKLY JOURNAL,

DEVOTED TO FIELD AND AQUATIC SPORTS, PRACTICAL NATURAL HISTORY, FISH CULTURE, THE PROTECTION OF GAME, PRESERVATION OF FORESTS, AND THE ENJOYMENT IN MEN AND WOMEN OF A HEALTHY INTEREST IN OUT-DOOR RECREATION AND STUDY.

PUBLISHED BY

Forest and Stream Publishing Company.

—AT—

No. 111 (old No. 103) FULTON STREET, NEW YORK.

[POST OFFICE BOX 2332.]

TERMS, FOUR DOLLARS A YEAR, STRICTLY IN ADVANCE.

Twenty-five per cent. off for Clubs of Three or more.

## Advertising Rates.

Inside pages, nonpareil type, 25 cents per line; outside page, 40 cents. Special rates for three, six and twelve months. Notices in editorial columns, 50 cents per line.

Advertisements should be sent in by Saturday of each week, if possible.

All transient advertisements must be accompanied with the money or they will not be inserted.

No advertisement or business notice of an immoral character will be received on any terms.

\* Any publisher inserting our prospectus as above one time, with brief editorial notice calling attention thereto, and sending marked copy to us, will receive the FOREST AND STREAM for one year.

NEW YORK, THURSDAY, JANUARY 31, 1878.

## To Correspondents.

All communications whatever, intended for publication, must be accompanied with real name of the writer as a guaranty of good faith, and be addressed to the FOREST AND STREAM PUBLISHING COMPANY. Names will not be published if objection be made. No anonymous contributions will be regarded.

We cannot promise to return rejected manuscripts.

Secretaries of Clubs and Associations are urged to favor us with brief notes of their movements and transactions.

Nothing will be admitted to any department of the paper that may not be read with propriety in the home circle.

We cannot be responsible for dereliction of the mail service if money remitted to us is lost. NO PERSON WHATSOEVER is authorized to collect money for us unless he can show authentic credentials from one of the undersigned. We have no Philadelphia agent.

Trade supplied by American News Company.

CHARLES HULLOCK, Editor.

T. C. BANKS, Business Manager. S. H. TURRILL, Chicago, Western Manager.

## SCIENCE ON THE QUARTER DECK.

## AN HOUR'S TALK WITH CAPTAIN MORTIMER.

ONE'S conception of what a true student of nature is like may be so very different! The idea of a really good man, at least to our infant mind, was always associated with a white cravat. Alas! later in life we found out that very ungodly people, notably restaurant waiters, sported white cravats. Still, as far as scientific study goes, people seem to think that the devotee must assume a grave and ponderous manner. We are prone to arrange for ourselves the *mise en scene*, and that peculiar weird tinge with which the alchemist imbued all their actions, still predominates our fancies. Now, the question is, in this practical age, why should not men probe into the secrets of nature, casting off their velvets and sables, and in nothing more than their shirt-sleeves, dig into the gist of things? Give an observant man, one whose eyes are always open, a seat on a garden bench, and the leaves and tendrils of the vines which creep over an arbor will afford him ample sources of study. With his foot he turns over a stone, a bit of decayed wood, and under these he finds a hundred objects worthy of examination. If in some of the abstract sciences the solemn privacy of the study is necessary; if apart from all noise and disturbance, a Leverrier eliminated, by pure abstract calculation in his closet, the presence of a planet, for a better acquaintance with nature, such seclusion is as impossible as it is unnecessary. Somehow or other the true naturalist is always a pleasant, a good-natured man. As he must pass most of his time in the open air he generally has that fine, wholesome appearance of sound health which ought to be and mostly is the unerring evidence of a clear and good head. The physical and mental qualities have combined to give him aid and comfort.

A ship lies moored at the dock on the East River near Fulton Ferry. She is a huge vessel and she has staid there all the summer. Now this good ship, the Hamilton Fish, is getting ready for sea, and bale after bale of cotton is being put below. We climb the gangway, make our way on deck past sailors

and laborers and gain admittance to the spacious cabin. But is it a cabin? It certainly has the appearance of one. Here are the innumerable doors opening to the berths, and there swings that peculiar rick in which the easter, the glasses and the plates are kept, indicative of that time when every object, animate or inanimate on shipboard, has to do its level best to find its own particular centre of gravity. It smells of the ship. There is that peculiar marine-store odor, not bilge water in the least, but of the steward's pantry, where innumerable good things are kept for future use. Still, it is marine, for there is a mast passing through the cabin, and there are ship's charts on the table. But it has more the appearance of a place devoted to study. As the ship sways about gently a door or two gapes open and discloses the contents of the rooms. There are no beds in those berths, but every nook and corner is crowded with books. On the table of the cabin, there are innumerable small vials, kept in their places in boxes, and more than one microscope is in view. Overhead there hang glass globes, in which are growing curious marine plants. Is this then the cabin of a sturdy skipper, or the refuge of some scientific man? It is the domicile of both these useful personages, for Captain John H. Mortimer lives here, who is quite as ready to send his good ship speeding over the wintry waves straight on to Liverpool, by the use of his compass, as he is capable of making some curious discovery in natural history by means of his microscope.

The captain receives us in his honest, hearty and charming way. It is of no use for us to talk. We have not come on board for that purpose, all we wanted to do was to listen and to absorb what we can of the many beautiful and instructive facts which Captain Mortimer can impart to us. It is not a "shiver-my-timbers" information which is given; there is no tar about it. Like all men thoroughly saturated with their subject there is no redundancy of words, no egotism about Captain Mortimer. The most learned professor, even a Huxley, a Tyndall, might envy the clear, straightforward language Captain Mortimer possesses.

The study of marine creatures and plants has been a labor of love with Captain Mortimer. Drifting about for years in a field tens of thousands of miles in extent, the broad ocean has been Captain Mortimer's text book, and most accurately has he noted all the strange growths which are to be found on her huge, heaving bosom.

A conversation with Captain Mortimer is naturally desultory of its kind. Did you wish it, our naturalist captain could take up any one question and exhaustively get all out of it, and squeeze the subject as dry as a sponge.

We commence, asking a question about the *maricoides* and the Tyrian purple. Captain Mortimer shows us specimens of the *Purpura lapillus*, which must have furnished the Greeks and Romans with their brilliant purple coloring, which dye was reserved for princes and patriots. We wonder why the Attic dandy did not use aniline colors, and then remember that although Alcebiades was a voluninous speaker and an exquisite they made no gas in Athens. Our naturalist shows us various specimens of the murex, and exhibits many shades of purple derived from this shell. The lasting quality of the color is manifest from the time which has elapsed since Captain Mortimer made the shell-fish exude its pigment. Then, naturally, the ink of the cuttle-fish is talked about, and that curious provision of nature which allows a creature to surround itself with a black cloud in order to escape. Now we discuss rudder fish, and Captain Mortimer gives a simple explanation why the *Cavanz capangus* stays in the immediate vicinity of a ship. "It is because," the Captain explains, "the rudder fish follows close in the wake of the ship for safety from dolphins and other marine enemies. Of course the rudder fish picks up some little food from the ship. But when you see rudder fish around you may be sure that there are some big fish after them. The minute one strays away, or lags behind he is gobbled up. The big fish are afraid of the ship, but the little fellows are not." Now we listen to the Captain on those adaptations of nature which she employs so as to best keep herself in a constant state of equilibrium. We hold our peace now, for the Captain is more than eloquent. "There is nothing," says Captain Mortimer, "more beautiful than this incessant action of nature which creates and destroys; life and death are ever being produced in the ocean. Now, take the *Tuca natans*, that's a sea-weed which floats on the water, buoyed up by its seed vesicles which are like corks and net. This sea-weed stays on the surface for a while, when there comes the coral insect. I use the word insect, but it is hardly the proper term. Well, the coral formation seizes hold of those air cells and covers those seed vesicles with the most beautiful treeries of carbonate of lime. Here are several specimens in this little vial. Take this magnifying lense and look at them. See what exquisite lace-work! Now, specific gravity alters circumstances. In time down goes the air vessel, sea-weed and all, to be dissolved in the depths below. It has aerated the water, and now it is to furnish new life to others of God's creatures. This same grand rule ever follows. There is nothing that floats on the sea which is not destroyed. The wash of the waves may have incessant action as to abrasion and solution, but this would not be rapid enough. Left alone to their natural action—slow of themselves—we might imagine huge areas of water covered with decomposing sea-weed, or drift-wood. Nature wants in such instances to get rid of its useless substances—useless only of course for the moment—and to change them rapidly. Accordingly we have another powerful agent, and that is a worm. What the coral formation cannot sink by overloading, the Teredo finishes by water-logging. A bit of floating wood has but a short life in

salt water. On comes the Teredo and goes through and through a chip or a ship mast, honey-combing it until it is water logged, when it ceases to swim. Here is a Teredo which was some, twenty inches long. It is shriveled up now. It took me years to study out how this worm worked. Now, through your glass, look at his cutting apparatus. It is a very fragile kind of an auger and so delicate that when you touch it it crumbles. How could a poor cutting edge like that go through hard wood? for, mind you, a stiek of ebony, any dense or close-grained wood, providing it would float, would be a more toothsome morsel to a Teredo than a bit of white pine. Now, once in the Indian Ocean I was working on a bit of a ship rail which I had picked up at sea, in order to find a lovely lot of Teredos which had burrowed in it. I wanted one badly as a specimen. As I was carefully whittling my bit of wood I found my hands get clammy and greasy, when I rubbed the track over where the Teredo had passed. I had it then, had the whole story. That worm was both carpenter and chemist. First he exuded some kind of a substance of an alkaline nature which softened the wood, and then the cutting apparatus easily went through the pulp. I am certain I am right, that it is not the cutting portion of the worm which works alone, because stringy, fibrous wood is an impediment to the passage of the Teredo. Though his exudations, or secretions, can soften some parts of the wood, he can't overcome the fibres and the rough fibres hurt his body as he wriggles through. A piece of palmetto wood which is soft in parts and fibrous in others he cannot work on. Now, a knowledge of this kind can be made useful, if not in ships, at least when piles have to be driven into the sea. If we could saturate a log of wood with an acid solution we might neutralize the alkaline substance coming from the worm, and it would prevent the mischief of this Teredo which costs ships and wharf owners millions of dollars every year. But we will dismiss the practical part of all this, for I want to show you my method of preserving certain curious sea forms. Now, look at this." Captain Mortimer showed us a beautiful outline of some strange form which stood out in relief on a long piece of paper. "Now, this is a specimen of the *Salpe pinnati*. It is a kind of ribbon found in the North Atlantic, sometimes many feet long. It is a living organism, a congregate of families all united. It may be the grandfather and grandmother, the sons and daughters, the mother-in-laws and grand children all happily joined together. The great-grand children can break loose if they want to and get independent, and will manage very well, creating new families. Now, I wanted to preserve a specimen, so I dried it gently under pressure, washing out the salt, and there you have it—a perfect salpa less the bulk. Contraction and expansion, the sucking in of the water and the throwing out of the water are the methods of locomotion these salpa have. They are, when alive, beautifully phosphorescent. Now here is something else. I really am proud of having found out a great deal in regard to it. It is the *Littopa bombyx*. It's a tiny shell fish that really does its own spinning—a kind of sea silk-worm. Now, what does it do that for? Why it throws out its threads and binds together sea-weed, and then deposits its eggs, or germs; makes a nest like a bird. Suppose it didn't? How would the little *Littopa* get along? They would all sink in the sea. What they want is air and warmth in order to grow. So the *Littopa* shoots out her threads backwards and forwards and makes a kind of comfortable quilt for the babies to nestle in. Are not the provisions of nature beautiful? It was years before I got to the bottom of that and a good many learned people doubted it first, but I think they have all now given me credit for it. Here they are." The Captain handed us a bunch of sea-weed and we looked with delight at the delicate filaments, with tiny shells on it. "How many various specimens have you, Captain, on the vessel," we asked. "Oh, I don't know, may be thousands; all these berths are filled with them. It's my museum. Oh, I haven't shown you this. This is the pipe fish, *Sygnanthus*. Now, what was queer about this little fish was, that sailing in the North Atlantic I came across quantities of these fish apparently hibernating, sleeping, or torpid on the surface of the water. Now, there is something curious about this pipe fish. Everybody knows—" ("Everybody knows?" we said reflectively, at the same time somewhat inquisitively—"or should know, that it carries its eggs outside." "Like a lobster?" "Yes. Now, how could *Sygnanthus* get her eggs matured? I asked myself. Why just in this way, keeping on top of the water, half asleep, if you please, but having the advantages of warmth and heat—No, Mr. Jones, have those bigger balls of cotton stored midships; and see that the stevedores don't neglect their work. As I was saying, often the acts of creatures living on the earth are repeated in the water, only that the destructive actions all become more visible to us in the water than on the land, as we study these forms more carefully."

We could have staid all day listening to Captain Mortimer, so delightful was his talk, so fresh were his illustrations, so attractive were his methods of imparting information. To-day the good ship Hamilton Fish is buffeting the wintry waves on her way to Liverpool. May her clever captain, who is indeed a shining light of science and whose numerous discoveries have entitled him to a leading position in many learned societies at home and abroad, reach his port in safety. It is not common to meet a man who is not only a master in seamanship, but who has found time during a life of labor and hardship to go so deeply into nature's most hidden secrets.

FOREST AND STREAM will be sent for fractions of a year as follows: Six months, \$3; three months, \$1. To clubs of two or more, \$3 per annum.

**LA ILLUSTRACION VENATORIA.**—We beg to acknowledge the receipt of this beautifully illustrated paper, whose editor is Don Jose Gutierrez de la Vega, and place of publication Madrid. The editor of *La Ilustracion Venatoria* is well known as the publisher of a Hunting Bibliography, and as being familiar with all topics relating to sports of the field and stream. The present number contains articles of the most interesting character, which are heightened by capital illustrations. De la Vega is a famous name in the literature of the world, and we are sure that the editor of this paper will not belittle his famous ancestor.

**GAME PROTECTION.**

**MONTREAL.**—The annual report of the Montreal Protective Association, received Jan. 24th, shows that owing to the successful prosecutions of the past there were fewer violations of the game laws during the past season than heretofore.

The Erie Game and Fish Protective Association have elected the following officers for the ensuing year: Pres., Henry Souther; Vice-Pres., C. M. Tibbals, Jr.; Sec., Clark Olds; Treas., E. P. Gould; Directors, W. W. Reed, chairman; John S. Riddle, John P. Vincent, J. P. Metcalf and W. W. Derby.

—Cecil, Md., is to have a protective club.

**PROTECTION IN NEBRASKA.**—*Omaha, Jan. 21.*—*Editor Forest and Stream:* Pinnated grouse and quail have increased very largely over recent years, although the senseless law of last year has been almost totally disregarded in many portions of the State. This law, which was enacted professedly in the interest of the farmers, prohibits the killing of all wild birds, at all times, except water fowls, etc. In this vicinity the infractions of the obnoxious law have been entirely clandestine. No evidence of its violations has been brought to the attention of the Omaha Sportsman's Club, nor have I heard of an instance upon which a prosecution could have been based. No doubt this has been caused by the judicious course pursued by this club, not only discouraging all violations of the law by its own members, but by admonishing all other persons of a determination to prosecute all offenders. Some system of legislation should be devised to prevent the shipping of game to the Eastern markets, and especially in Boston and New York during the close seasons. The main incentive to violations of the law is the traffic abroad—not at home. No contraband game is exhibited for sale in Omaha, because parties know the consequences. But it is this clandestine killing and shipping to Eastern markets in disguise that works the mischief.

BOR WHITE.

**QUAIL PROTECTION.**

WATERTOWN, Wis., Jan. 9, 1878.

**EDITOR FOREST AND STREAM:**

Here is a way for various sporting clubs to increase the quail in their vicinity:

We have some members of our club residing a few miles in the country, and one, a Mr. Smith Hoyt, about one year since, as the cold weather approached, caught with a trap, nine quails, and put them in his barn. The cats or rats destroyed six of them, but the remaining three he wintered through and turned out in the spring. They took up their abode on his premises, and reared their young; and now Mr. H. has caught them again—thirty-seven this time. He has constructed a nice little park in a warm place, secure from molestation from cats or other "varmin's," where he feeds them daily, and in the spring, will turn them out again without charge for board or rent. They are quite tame and appear to enjoy being fed. Now, let others that are in a situation to do so, follow this example, and we shall soon have plenty of quail again.

S. M. EASTON.

[We have printed, from time to time, a good deal on this topic, as its importance deserves, and are glad to call it once more to our readers' attention. This year, unfortunately, live quail are not to be had for love or money in the East, but we hope our Western friends are better situated in this respect.—Ed.]

*The Rifle.*

**THE FOREST AND STREAM AND GUN MEDAL.**

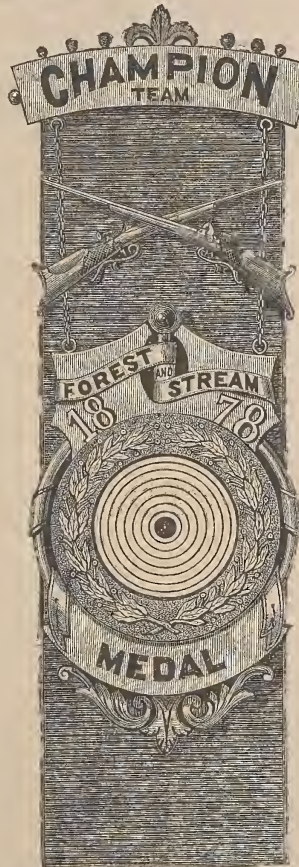
TEAM SHOOTING BY THE LEADING GERMAN RIFLE CLUBS—THE ZETTLER CLUB WINS.

Desirous of promoting team shooting among our German citizens, the FOREST AND STREAM AND GUN, some six weeks ago, determined to present a handsome prize for the best score to be made by a team of twelve. Though the notice of the match was a short one, our proposal was met with enthusiasm. It may be stated that, in a general way, the various schutzen corps in the United States have rarely, if ever, united in team shooting, and it was with the desire of interesting our many German friends in this particular branch of shooting that our efforts were mainly directed. We had hoped that some of our purely native organizations would have been found ready to measure their skill with our German citizens. We do not like to think that any of our leading American clubs were afraid to meet the teams of the Schutzen associations on their own grounds. We accept, then, the plea that the short notice given of the match did not allow such teams the necessary time for practice. The following were the conditions of the match:

Each team to consist of twelve men, ten shots per man. Shooting, off-hand; distance, 200 yards; any rifle; open to all clubs or associations. No person allowed to compete in a team unless he is an active member of the club for ninety days. Practice from 10 A. M. to 1 P. M. Team shooting to commence at 1 P. M. Targets to be drawn for by each captain of each team. Entrance fee, \$6 for each team. Ring targets to be used, three-quarter inch rings. After deducting the expenses for the markers, the balance will be divided to the second and third highest teams. Shooting to be governed by the Schutzen Bund rules. Shooting to take place Jan. 23, 1878, at Union Hill Schutzen Park.

Though fairly familiar with the rules and regulations governing the shooting of the Schutzen corps, in order that there should not be any conflict with their approved methods, the management of the match was entirely confided to Mr. John Raschen, who, acting as shooting master, conducted the whole business in the most satisfactory manner, and to whom our thanks are especially due. In fact, the entire method and arrangement of our German friends, in their shooting, is conducted in the plainest and most common-sense manner, and offers many practical advantages which our N. R. A. would do well to look to.

As many of our readers may not fully understand the methods of shooting used by our German friends, we will endeavor to explain them. First, as to rifles: There is no restriction as to weight or make of rifle. The general average of the rifles used in the match was about fourteen pounds. Some rifles weighed eighteen pounds. A hair-trigger is admissible, with any sight save a telescopic one. No artificial rest is permitted. It is off-hand shooting. When the gun is a heavy one, a kind of hand-rest is allowed. This is a wooden adjunct, called a "holder," which is screwed to the gun about four or five inches beyond the guard of the trigger, which is held in the left hand. The left arm is, in this case, sometimes steadied on the hip, and the "holder" held in the palm of the hand and steadied by a firm clutch of the fingers. The charge, generally, was seventy grains of powder, with a small cone-shaped bullet, say of about forty to the pound. A patch is used. False muzzles are employed in inserting the balls, and the rifles are cleaned out after every fourth or fifth shot. The leading makers of these rifles are: Mr. Schalk, of Pottsville, Pa.; Mr. John Rhine, of New York; Mr. Spencer, of Connecticut, and Mr. Zettler, of New York. We may state that quite a number of breech-loaders, principally Ballards, were used.



The targets: The diameter of the target is 23 1/2 inches, the bull's-eye having a diameter of 1 1/2 inches. The whole target is divided up with fifteen rings, which are three-quarters of an inch apart. The black in the target extends through the seventh to the eighth ring, the white from the eighth to the fifteenth. The scoring is made twenty-five for the bull's-eye, each circle diminishing by one point. Some of these days, when rifle shooting at long or short range improves, by the use of more accurate weapons, we shall have to adopt a similar method at Creedmoor. It shades off the value of shots.

In marking the shots at the butts the targets are double, hung in window frames and counterpoised. The shooter at the stand rings a bell, which calls the marker's attention. The target is lowered after the shot, patched, and the other target being run up is ready. The score is shown by means of a black tin plate, with the various numbers painted in white on it. There are special signals as of white, blue and red flags, when the bull's-eye or the circles near it are hit. The markers work under the protection of a solid stone wall higher than their heads. The balls are received in a wooden frame, constructed of soft wood, the timbers being built up at right angles with the plane of the wall, so that the balls bury themselves into the grain of the wood. In this way the balls completely imbed themselves, and there are no splinters. The 23d was just as cold as it could be, and the wind blew

a gale all day with a force which the meteorological bureau says was phenomenal, sometimes as much as forty-five and fifty miles an hour. But the sun was bright and few clouds shaded the horizon. The shooting hall at the Union Hill Schutzen Park is a large structure, capable of allowing twenty-four men to shoot at the twenty-four targets at a time.

Three sides of the hall are covered in, the fourth, fronting the targets, being of course open. Various screens interpose between the targets and the stand, so that bullets shot more or less wild are arrested in their flight. We suppose that shooting at the wrong target is of rare occurrence. By 1 o'clock, everything being in order, shooting commenced in a most lively way, and the crackings of the rifles were incessant until 4 o'clock. Four men from each team were always in place, so that there was no delay. As it was intensely cold, the pluck and endurance of the marksmen were all the time taxed to their utmost. Still, the excitement carried everything through most pleasantly. The following teams competed: The Zettler Rifle Club, Captain B. Zettler; the Newark Shooting Association, Captain W. Hayes; the Jersey Schutzen Corps, Captain A. Ermich; the New York Schutzen Corps, Captain Aery; the Brooklyn Schutzen Corps, Captain Kohlmeier, and the Independent New York Schutzen Corps, Captain J. J. Diehl. The following was the result:

Zettler's Rifle Club.																							
M Dorsler	6	17	25	17	18	19	15	21	20	177	P Fenning	18	16	8	18	10	0	23	23	3	18	137	
M Fennig	23	13	17	17	22	22	23	19	21	16	204	M F Patterson	0	13	13	13	13	13	13	13	13	13	13
D Miller	22	23	15	13	13	23	20	14	17	15	175	J Grohman	9	15	18	12	17	20	15	5	14	9	134
J Grohman	9	15	18	12	17	20	15	5	14	9	134	B Zettler	12	18	18	10	21	23	23	19	17	171	
B Zettler	12	18	18	10	21	23	23	19	17	171	C G Zettler	12	13	13	13	13	13	13	13	13	13	13	
C G Zettler	12	13	13	13	13	13	13	13	13	13	13	C G Zettler	7	15	8	13	20	16	11	21	19	176	
C G Zettler	7	15	8	13	20	16	11	21	19	176	M B Engel	14	16	5	11	17	13	20	18	24	155		
M B Engel	14	16	5	11	17	13	20	18	24	155	M L Riggs	21	20	10	14	23	5	13	15	15	143		
M L Riggs	21	20	10	14	23	5	13	15	15	143	T Kistrath	14	25	22	21	13	23	20	13	24	127		
T Kistrath	14	25	22	21	13	23	20	13	24	127	Total	1,925											

Newark Shooting Association.																						
Cleveland	19	13	0	0	21	14	0	4	16	13	100	A Seitz	116	19	20	15	16	21	17	24	17	178
A Seitz	116	19	20	15	16	21	17	24	17	178	Becher	23	13	21	22	16	15	23	19	21	190	
Becher	23	13	21	22	16	15	23	19	21	190	Kegel	22	12	23	13	19	19	21	14	11	161	
Kegel	22	12	23	13	19	19	21	14	11	161	Wm Hayes	23	15	19	10	13	19	18	13	21	168	
Wm Hayes	23	15	19	10	13	19	18	13	21	168	Fane	12	10	21	13	16	20	8	4	14	137	
Fane	12	10	21	13	16	20	8	4	14	137	Hartmann	15	15	25	14	12	5	20	4	18	143	
Hartmann	15	15	25	14	12	5	20	4	18	143	Knapp	21	7	14	16	14	1	20	15	4	127	
Knapp	21	7	14	16	14	1	20	15	4	127	Hellwig	18	17	19	6	24	17	16	21	17	154	
Hellwig	18	17	19	6	24	17	16	21	17	154	Schalk	24	5	13	15	16	10	17	20	7	143	
Schalk	24	5	13	15	16	10	17	20	7	143	Flammer	6	23	20	9	13	11	7	13	9	131	
Flammer	6	23	20	9	13	11	7	13	9	131	Terril	15	0	13	0	0	6	9	16	16	98	
Terril	15	0	13	0	0	6	9	16	16	98	Total	1,738										

Jersey Schutzen Corps.																						
P Raschen	7	23	0	10	4	11	4	23	20	18	120	H Raschen	14	17	0	15	5	11	22	13	2	109
H Raschen	14	17	0	15	5	11	22	13	2	109	J Blumenberg	0	12	0	3	17	15	13	0	14	94	
J Blumenberg	0	12	0	3	17	15	13	0	14	94	A Zengner	0	12	0	3	17	15	13	0	14	94	
A Zengner	0	12	0	3	17	15	13	0	14	94	A Brunsch	15	17	23	10	7	16	18	19	7	129	
A Brunsch	15	17	23	10	7	16	18	19	7	129	Rathen	14	14	2	18	17	13	16	15	17	147	
Rathen	14	14	2	18	17	13	16	15	17	147	Flaetner	14	7	22	9	2	15	11	24	9	138	
Flaetner	14	7	22	9	2	15	11	24	9	138	J Dittmar	1	1	17	24	22	15	6	12	22	141	
J Dittmar	1	1	17	24	22	15	6	12	22	141	J Schneider	14	23	7	13	19	9	16	12	18	152	
J Schneider	14	23	7	13	19	9	16	12	18	152	B Lippman	2	0	10	21	22	3	18	6	2	106	
B Lippman	2	0	10	21	22	3	18	6	2	106	H Hansen	5	0	11	25	10	16	13	18	10	129	
H Hansen	5	0	11	25	10	16	13	18	10	129	J Aeschbach	6	11	20	19	15	17	17	9	8	145	
J Aeschbach	6	11	20	19	15	17	17	9	8	145	Total	1,535										

New York Schutzen Corps.																						
Ph Klein	8	7	19	21	0	4	12	4	3	28	101	Wm Klein	13	7	18	22	7	3	4	17	6	128
Wm Klein	13	7	18	22	7	3	4	17	6	128	Wm Bahn	15	16	25	19	11	21	24	19	16	173	
Wm Bahn	15	16	25	19	11	21	24	19	16	173	Robert Faber	15	15	6	19	24	16	16	10	15	158	
Robert Faber	15	15	6	19	24	16	16	10	15	158	John Reim	0	4	9	20	0	4	15	9	18	59	
John Reim	0	4	9	20	0	4	15	9	18	59	Henry Knebel	20	4	19	15	0	20	12	18	16	146	
Henry Knebel	20	4	19	15	0	20	12	18	16	146	G A Kundahl	0	13	0	14	2	0	4	0	6	69	
G A Kundahl	0	13	0	14	2	0	4	0	6	69	Capt G Aery	22	17	2	7	8	2	5	14	12	106	
Capt G Aery	22	17	2	7	8	2	5	14	12	106	Fr Zeller	9	18	7	7	10	12	15	21	22	123	
Fr Zeller	9	18	7	7	10	12	15	21	22	123	Geo Bauer	16	9	17	0	11	15	0	9	15	0	
Geo Bauer	16	9	17	0	11	15	0	9	15	0	John H Muller	9	10	15	1	1	17	14	14	4	112	
John H Muller	9	10	15	1	1	17	14	14	4	112	Gevert Menken	2	13	16	18	11	10	20	14	21	139	
Gevert Menken	2	13	16	18	11	10	20	14	21	139	Total	1,437										

Brooklyn Schutzen Corps.																						
Geo T S Dakin	14	18	20	13	20	17	19	16	6	23	166	C Natanson	3	7	16	1	7	3	4	19	9	69
C Natanson	3	7	16	1	7	3	4	19	9	69	H Muller	20	15	12	13	18	15	18	19	4	146	
H Muller	20	15	12	13	18	15	18	19	4	146	G Budeimann	13	11	22	17	0	13	0	18	19	114	
G Budeimann	13	11	22	17	0	13	0	18	19	114	H Dolmann	10	14	20	10	8	4	11	13	1	99	
H Dolmann	10	14	20	10	8	4	11	13	1	99	G Fane	15	12	16	15	1	20	3	5	17	144	
G Fane	15	12	16	15	1	20	3	5	17	144	C Ziegler	19	10	21	19	16	9	11	12	25	159	
C Ziegler	19	10	21	19	16	9	11	12	25	159	L Mendorf	1	13	18	14	13	0	20	20	6	86	
L Mendorf	1	13	18	14	13	0	20	20	6	86	W Ripke	10	0	14	2	23	0	0	8	0	57	
W Ripke	10	0	14	2																		

of which we have every reason to congratulate ourselves. If from our German friends we have learned the primary school of the rifle, it has been a pleasure for us to introduce them to team shooting.

Our engraving gives a capital conception of the medal presented by us to the teams which shot on Jan. 23, at Union Hill Schutzen Park. The medal is of gold, worked with various shades of the precious metal. In the centre is a white enamel target, divided by gold circles, with a black bull's-eye. A wreath of laurel surrounds the crown. The legend, "Champion Team—Forest and Stream Medal, 1878," is engraved on a scroll. The medal is hung by a gold chain from two miniature German Schutzen rifles, with their peculiar globe sights and curved butt plates. Our numerous German friends have been quite unanimous in regard to the general good taste our artist has evinced in the designing and execution of this trophy.

THE FOREST AND STREAM AND ROD AND GUN TOURNAMENT

For the Short-Range Championship

And three team medals, which will be awarded to the teams making the first, second and third best scores. Other prizes will be offered also, to take place at Conlin's shooting gallery. Open to teams from any organized rifle club.

Conditions.—Teams—Each team shall consist of ten men. The teams participating must be composed of members of the various clubs which they represent. Rifles—Limited to ten pounds in weight; minimum pull of trigger, three pounds; .22-100 cal. Teams can furnish their own rifles and ammunition, or use those at the gallery, as they may desire. Number of Shots—Ten by each competitor. Sighting Shots—Two shots will be allowed each competitor. Position—Off-hand. Targets—200-yards targets, according to the regulations of the N. R. A. reduced in proportion to the range at the gallery. Practice—No practice allowed on the day of the match. Entrance Fee—Five dollars to be paid at the office of the FOREST AND STREAM AND ROD AND GUN, No. 111 Fulton street, N. Y. All teams desiring to compete must be entered ten days before the time the match is announced to take place. The match to be governed by the rules of the N. R. A. relating to teams. Captains of the competing teams shall meet one week before the commencement of the match, make all preliminary arrangements, choose referees, and decide in what order their respective teams shall shoot. The referees shall elect an umpire, whose decision in all cases shall be final. The time when this match is to be shot will be mentioned in the next number of the paper.

AN INTERNATIONAL MILITARY MATCH.

It has all along been tacitly agreed that international matches should be long-range contests. There is reason for this, yet not sufficient ground for the exclusion of other styles of marksmanship in the determination of national champions. It is quite true that the ability to show a good record at the extreme ranges, demands that the marksman be provided with the best arms, that he be in the best condition personally, and that in matters of judgment and discretion he be trained to the highest degree. It affords a style of shooting sufficiently difficult in itself to warrant the highest public honor and praise to the successful marksmen. The popular notion is that such shooting is the most difficult, and therefore the most proper, for so important a test as that on which national championship honors rest, and like many popular notions there is a basis of fact, overlarded with a vast scum of fiction and error.

And yet, after all, small-bore shooting per se is a mere sport, a work of fancy and pleasure. There are dependent upon it important problems in the art of small-bore gunnery. But if long-range shooting has any application, it must be to the subjects of war or hunting. Still, to neither of these uses would a small-bore rifle be directly applied. A trapper would not care to drag a match rifle, with its delicately graduated sight bars, etc., with him to the field, nor would an ordnance board recommend the placing of these weapons in the hands of a regiment of soldiers. The lessons which the score-book of the long-range shooter teaches may be, should be, and are, indeed, hoisted by both hunter and soldier, but neither of them adopts his weapon outright.

Every nation has its corps of armed defenders and citizen soldiers. They are generally armed with the best arms so far as their judgment and means dictate, and yet all these arms are various, and it would seem the most natural competitive trial possible to have men of these several nationalities come together before the butts, and, armed each with his favorite piece, show their ability and strive for the peaceful trophies of the rifle range. There are difficulties about such a match, many imaginary obstacles and a few real ones. Any fear of losing "points," by exhibiting in this way before a possible enemy, may be set aside as ill-founded. We need no trial to convince us that our Sharps and Remington military weapons are superior to the Snider, or the Manser, or the Chassepot, and yet a match with men bearing these arms and having faith in them would be serviceable to them and us alike; precisely as our long-range matches have been of advantage, and will be in the future, even though we are now firmly of a mind that our breech-loading match rifles are without a rival in accuracy and precision.

To properly test the question of military rifle superiority would demand the parade of a liberal team, that something of the conditions which surround a man in actual service should prevail. The close coaching system of the long-range match would need be largely laid aside. The men, while mutually helpful, would not be so mutually independent, that the pulsations of one should raise sympathetic throbbings in another. With the rough and ready weapon of the picket line and

the battle-field, the accurate work of the small-bore rifle should not be expected, yet such a match would be most eagerly awaited, most critically watched, and the results would bring more than the empty ring of victory to many a thinking, watching spectator. The slow leaven of the International matches is working through the thick crust of British old-foginess, yet how much keener would a defeat of a picked team of British volunteers strike the masses? The long-range men are looked upon as somewhat of an ornament, but to have the bulwarks of their homes, the defenders of their fire-sides and the saviors of their soil pushed aside even in the playful warfare of the rifle-range, would give the gallant Englishmen the most doleful of dumps. Nor should we feel so jubilant as now, were a picked squad of our National Guardsmen to meet a defeat at foreign hands.

An International Military match would call out more enthusiasm, stir up more talk, agitate a much larger circle and do more for the advancement of rifle practice here toward the position of a national sport than a dozen long-range shoots. Nine-tenths of what is now known as modern rifle practice in America may be traced back to the acceptance of the Irish challenge by the Amateur Rifle Club in Nov., 1872. Yet we venture to say that the enthusiasm of that first match and its successors, warm as it was, would be frigid beside the popular outburst which would follow a properly conducted military match open to all the nations (not countries) of the world.

W.

THE NEXT INTERNATIONAL MATCH.—At a meeting of the American Team of 1877, held on Wednesday last, all the members except Jackson present, it was unanimously agreed to have the next match for the Centennial trophy in September, 1878, exact day and place to be determined at a subsequent date.

THE OLYPHANT TROPHY.—Col. Robert Olyphant has offered a handsome bronze trophy for competition at Creedmoor during the coming season. Col. Olyphant is desirous of promoting "file and volley firing." The contest, which will be termed the "soldiers' match," will be open to teams of eight (privates or corporals) from any company, troop, or battery, in the National Guard, each organization having the right to enter an unlimited number of teams. The conditions are as follows: Distance, 200 yards; position, standing; weapons, military rifles or carbines, State model. The competitors will be required to wear their uniforms, and the match will be divided into two stages. The first stage will consist of firing by files, five rounds by each man, the time occupied not to exceed two minutes from the command. The second stage will consist of volley firing, five volleys being fired by each team. The firing in both stages will be conducted according to the regular tactics, each team being formed into a squad of four files, and commanded by an officer of its own company, who will give the requisite orders. The prize will be held by the team which wins it for one month, when it will again be submitted for competition.

RIFLE-SHOOTING AT CREEDMOOR.—The second contest for a purse of \$100 in gold took place at Creedmoor Gallery, No. 290 Broadway, on Saturday last. The distance covered was 200 yards; ten shots per man. The scores were as follows:

Table with 2 columns: Name and Score. Includes J B Rache, F A Dugro, F H Holton, F G Denning, J B Blydenburgh, J Sanger, F Benjamin, W Robertson, F Eckstein, D F Davids, Blydenburgh, Wm Foster, Wm M Farrow, Mr Johr, B Zettler, H W Gourley, S F Kneeland, J Levy, J W Todd, D A Steele.

NEW YORK RIFLE CLUB, at its meeting on Jan. 24, for the Blydenburgh medal, made the following scores:

Table with 2 columns: Name and Score. Includes C B Blydenburgh, S T G Dudley, J B Blydenburgh, A J Howlett, Valentine Daly, J S Conlin, F Alder, S W Sibley, P Lorillard, Jr, J G Zettler, N O'Donnell, A C Wursle, J Ward, J H Meeker.

Mr. V. Daly won the elegant trophy, with an allowance of 25 points.

Zettler Rifle Club held their weekly shoot at 207 Bowery, Jan. 22. Conditions—100 feet, off-hand, Creedmoor targets; possible 50 points.

Table with 2 columns: Name and Score. Includes M B Engel, C B Beates, C Vollars, W M Farrow, M L Riggs, J G Zettler, D Miller, Chas Judson, B Zettler, Theo Kleisrath, G Shurman.

FOURTEENTH REGIMENT ARMOY.—The new armory of the Fourteenth Regiment, Second Division, N. G. S. N. Y., a spacious iron building on Portland avenue, near Auburn place, Brooklyn, was opened with appropriate ceremonies and festivities last Monday evening. An assemblage of military and civil guests crowded the building, among them many gentlemen of prominence. The exercises opened with a review of the regiment by Major-Gen. T. S. Dakin. Following was the presentation of the prizes won by the regiment team at Creedmoor last year, and of a beautifully-designed and ornamented sword and belt, which the officers and men presented to Surgeon Farley in acknowledgment of his success as Cap-

tain of the regimental team and of his qualities as an officer. After this came the presentation of the marksman's badge, a dress parade, and then the dance. The occasion was a most pleasant one in every way worthy of the popular corps.

SEVENTH REGIMENT CONCERT.—The first of Grafulla's series of promenade concerts was given in the Seventh Regiment Armory last Saturday evening. The officer's rooms and the main drill room were elegantly decorated with flowers, arms, and bunting; the attendance was large, the toilets brilliant and the programme excellent in selection and execution. During the progress of the concert the rifle club had a shooting match in the basement for the diamond badge, which was won by Private E. W. Price, upon the score of 63 out of a possible 70 points; 23 at 200 and 34 at 500 yards.

TWENTY-THIRD REGIMENT CONCERT.—The armory of the Twenty-third Regiment, on Clermont avenue, Brooklyn, was crowded with a merry throng of Brooklyn's elite last Saturday evening. It was the first promenade concert of the season, and in addition to the admirable musical programme arranged by Conforno there was a shooting match between the Bachelors and Benedicks. The thousands of dancers and spectators, who filled the spacious floors and galleries to their utmost capacity, were not slow in espousing the cause of their champions. Those who upheld the honor of the respective states of single and married blessedness were:

Benedicks—Sergt. W. L. Candee, Priv. J. W. Sweeney, Priv. J. L. Thompson, Priv. J. K. Barlow, Adjt. J. B. Frothingham, Corp. C. A. Coffin, Priv. F. H. Holton, Priv. J. R. Stearns. Bachelors—Sergt. Ezra DeForest, Corp. D. C. Pinney, Priv. F. N. Holbrook, Corp. Fred Albers, Lieut. E. W. Burd, Sergt. J. M. Allen, Corp. A. G. Weber, Sergt. W. J. Oliver.

The Bachelors made a score of 156 against a record of 133 for their competitors. There will be a second concert Feb. 12, which will be preceded by a drill and dress parade of the right wing.

THE NEW JERSEY RIFLE ASSOCIATION.—The Board of Directors of the New Jersey Rifle Association held an adjourned meeting at No. 23 Park row on Thursday last, the 24th of January. Col. W. H. DeHart presided. Mr. Bonuet reported that he had been offered the refusal of a tract extending for 2,500 feet along the line of the Central Railroad of New Jersey, which could be leased for a nominal sum. Mr. Man reported for the Committee on Legislation that he had placed a copy of the act of incorporation of the association in the hands of a member of the New Jersey Legislature, who had promised to report the bill at once. On motion of Mr. Man the following committee was appointed to draft articles of incorporation of the association: C. A. S. Man, B. A. Vail, and J. T. B. Collins. Major Fulton stated that it was Gov. McClellan's intention to inspire a method for the reorganization of the National Guard of New Jersey, and in the proposition he would make he would refer to the necessity for making provision for rifle practice by the National Guard of that State.

HAOKENSAOK RIFLE ASSOCIATION, Jan. 25.—Monthly match for the diamond badge; 200 yards, off-hand:

Table with 2 columns: Name and Score. Includes W Holberton, H R Bruns, B S Earle, J Van Valen, W B Bann, Van Stratz, Ackerman, Vanderbeck, C Wells, Conlin.

Won by W. Holberton.

Second Match—For N. R. A. bronze medal, to go to highest score, and remain with winner until his score is beaten:

Table with 2 columns: Name and Score. Includes W Holberton, Freeman, A B Bann, Ackerman, Bruns, Van Stratz, C Wells, Earle.

NEW ORLEANS RIFLE CLUB, Jan. 20.—Good scores were made at 500 yards, off-hand, standing, with the following results:

Table with 2 columns: Name and Score. Includes Mr C K, D R A.

The best shots of this club having divided into two teams as evenly as possible, an interesting contest is looked for within the next few weeks. At 100 yards good practice scores were made, and, with the completion of a full team, more than average scores may be expected.

The competition for the new badge presented the club by its president, will take place the first Sunday in February, under special rules of the donor, and his motto, "May the best man win."

FROGMOR—CRESBENT CITY RIFLE CLUB.—The seventh competition for the gold badge of the Louisiana Field Artillery team took place on January 20, on the grounds of the club, Mr. W. R. Verlander being the winner. Below are the leading scores:

Table with 2 columns: Name and Score. Includes W R Verlander, P M Durel, L M Leamont.

OHIO—Cincinnati, Jan. 21.—The following scores were made by the rifle team of the Cincinnati Shooting and Fishing Club, on the 18th inst.; off-hand, at 200 yards; wind moderate; 3 o'clock breeze; day dark; light rain; average within a fraction of 63 in a possible 75. The aggregate of the last shoot by the team was 373.

Table with 2 columns: Name and Score. Includes Bann, Caldwell, Seaman, Disney, Eaton, Hall.

[We beg to call attention to this score, which is remarkable for its excellence. Sixty-six and sixty-four, off-hand, at 200 yards, are very high figures, and difficult to beat. We trust these gentlemen will keep working together as a team. We do not see why we should not have strong teams at short ranges to compete with other teams. If the Cincinnati Shooting and Fishing Club will keep on, they are likely to make a name for themselves.]



Yachting and Boating.

HIGH WATER FOR THE WEEK.

Table with columns: Date, Boston, New York, Charleston. Rows for Feb 1, 2, 3, 4, 5, 6, 7.

BOAT AND YACHT BUILDING—(11th Paper.)

BY NAUTICUS.

ELEMENTS OF YACHTS, MASTING, ETC.

In determining the position of a sloop's mast it is obvious that the farther it is placed forward the larger will be the area of the mainsail. This would be of advantage when sailing before the wind...

With the mast placed as above the sail drawing is made, areas and movements of sails calculated, and the centre of effort of the combined sails found, after which—if the centre of effort of the sails is too far forward or aft—the masts and sails may be moved forward or aft, until the centre of effort is in its proper position...

This rule gives more weight to the anchor than is generally used, but is a safe rule to follow. The diameter of the iron of which the links of the chain is made is as follows: For a fifty-pound anchor, three-sixteenths inch diameter; for a one-hundred-pound anchor, chain one-fourth of an inch diameter...

NAVAL ARCHITECTURE.—Mr. A. Carey Wick gave the second lecture of the course before the Yachtmen of Delmonico's, last Saturday evening. The topic of the evening was the calculations to show the important elements of a vessel so as to ascertain what her performance would be by comparison with other vessels similar in size and dimensions. The lecturer sailed as one of the crew of the White Cat for three years, and could not tell why she steered so badly. He procured her model, took the proper amount of water from the boat, made a draught and all the calculations, and found that the centre of lateral resistance was not in the vertical line of the centre of buoyancy...

one square foot area to every square foot of midship section. The angle to which the sails should be braced when working to windward depends on the form of the vessel—narrow, deep vessels bearing a smaller angle than others. The proper angle is best found by experiment, and care taken that the bolt-holes are so placed that the effective angles of the different sails may be alike. The effective angle of the mainsail is some three or four degrees more than the angle formed by the boom. Spare may be of any size, or of seven or more inches in diameter, but should have four feet in length to every inch of diameter; if under seven inches diameter, five feet in length to every inch of diameter. The diameter of the mast is greatest at the deck and tapers to the mast-head. At the lower end of the mast-head the diameter of the mast should be three-fourths the deck diameter. The boom should have its greatest diameter at or near its mid-length and taper each way toward the ends. The diameter of the ends of boom may be half, or a little more than half, the diameter of the middle. A cat-rigged yacht requires a larger mast than a sloop-rig carrying the same amount of sail—for the reason that no shrouds can be used.

At the present time hollow masts and spars are coming into general use—especially hollow masts. George Lewis & Son, yacht builders, of City Point, South Boston, have kindly furnished the following particulars of their practice: "In all cases we use nice, clean spruce, and have the sticks seasoned and dry before putting together. We generally get the sticks out in the fall, scoop them out to the required depth, and put them overhead in the loft to dry. In spring we put them together and finish off. We have no particular use for spars of birch, as they are not always used for the top of the mast. The pieces are put together with dowels, five-sixteenths to eight-sixteenths of an inch diameter, driven in with hot glue. The edges of the pieces are also well glued, so that, when finished, the seam can hardly be seen and is the strongest part of the mast. We never know of one giving out in the mast, and know of but two instances in which masts have been broken. The main-boom and shroude breaking first. Gulls and main-booms are made on the same principle. Egg-shaped gulls are doweled on the upper edges and riveted with copper rivets on the lower edge. We make a saving of iron one-third to one-half in weight of spars, which is quite an item. Hollow spars add greatly to the speed, and our fastest boats have them, with but few exceptions. Chain-plates are made of iron, unless a yacht is to be used for long cruises, had better be omitted. For ordinary use a canvas can be stretched over the boom, or else hung under it, its edges fastened around the cockpit, and the ends closed by "drape," making a comfortable and dry shelter. If a cabin is needed, it is better to make it in such a manner that it can be readily removed from the vessel when not wanted. Make the cabin as light as possible, and do not build it too high, or the stability of the vessel will be endangered. The rule to compute the weight of anchor for a vessel under one hundred tons is to multiply the square of the extreme breadth by a unit, varying from one and eight-tenths (1.8) to one and two-tenths (1.2); the latter unit for the smaller-sized vessels. Thus, a vessel of ten feet beam would require an anchor of one hundred and twenty pounds.

This rule gives more weight to the anchor than is generally used, but is a safe rule to follow. The diameter of the iron of which the links of the chain is made is as follows: For a fifty-pound anchor, three-sixteenths inch diameter; for a one-hundred-pound anchor, chain one-fourth of an inch diameter; one hundred and thirty-pound anchor, chain three-sixteenths of an inch diameter; one hundred and sixty to two hundred and fifty-pound anchors, chain three-eighths of an inch diameter; two hundred and fifty to three hundred and fifty-pound anchors, chain seven-sixteenths of an inch diameter. The length of chain depends on the cruising ground.—From forty to seventy fathoms; for inland waters a dozen fathoms may be sufficient. In the next article we will give you a view of a cat-rigged yacht in general use, commonly called the "Newport Boat."

NAVAL ARCHITECTURE.—Mr. A. Carey Wick gave the second lecture of the course before the Yachtmen of Delmonico's, last Saturday evening. The topic of the evening was the calculations to show the important elements of a vessel so as to ascertain what her performance would be by comparison with other vessels similar in size and dimensions. The lecturer sailed as one of the crew of the White Cat for three years, and could not tell why she steered so badly. He procured her model, took the proper amount of water from the boat, made a draught and all the calculations, and found that the centre of lateral resistance was not in the vertical line of the centre of buoyancy, which explained the mystery. All that could be done to obviate the trouble was to put a deep skag upon her aft, and this would be objectionable as lessening the speed. Mr. Smith showed how this defect in shape of hull could be avoided, explaining in detail how the area of each section could be calculated, and from these the exact displacement of the vessel ascertained, the calculations being by what is known as "Simpson's rule." While showing the difference of measurement with the plank off or on, he alluded to the models which are hung up in the New York and other club boats, and guarded so jealously, and said that he did not want to hang up and look at, but some of them were no more like the craft they purported to represent than he was. He next explained the method of finding the centre of gravity of displacement or the exact point at which, if weight was applied, the vessel would sink squarely down, not tipping at either end. This was important in view of the placing of the spars. The weight of those forward and aft

of this point being known, it could easily be seen how much of ballast about that point would be required to preserve her balance. He then explained what was meant by the immersed and immersed wedges, meaning those portions of the hull above or below the load-water line that were either elevated or depressed when the vessel heeled under the pressure of the wind, and he instructed his hearers as to the manner of calculating their areas. In conclusion he explained how to find the lateral point of resistance so as to properly place the centre-board, the centre of gravity of which should be immediately under the point of lateral resistance, which meant that point where, if a line were fastened, the vessel would be drawn exactly sideways.

—The yacht Wave has been sold to Mr. Underhill, of Staten Island.

—Comodoro Noble, of the Columbia Yacht Club; will have a new racing boat from the house of Richard Walton.

—The Pluck and Luck has gone to New Orleans.

—The yacht Tidal Wave goes to parties in San Francisco.

THE INTERNATIONAL REGATTA ASSOCIATION.—A cable dispatch from London to the Boston Globe, dated 21st inst., says: "The International Regatta Association has decided to hold a grand regatta in July, and, in order to induce scullers and crews from the provinces, United States and all points of the world, will give \$2,000 in purses for professionals (scullers and crews) and silver plate for amateur oarsmen. Every inducement is to be made to bring over the oarsmen. Hanlon, of Toronto; Wallace Rose, of St. John, N. B., and Courtney, Scharf and Morris, of the United States, scullers. The amount of all the purses has not yet been decided on, but the purses for the single scull race, for the championship of the world, in Canadian and American champions will compete, will be £200 to the first, £150 to the second and £75 to the third. The other numerous contests will comprise pair and four-oared races, open to all, for the championship of the world. There will also be a single, pair, four and six-oared race for the amateur championship, open to all universities and regular amateur crews in the world. All the races will be rowed on the Thames, from the aqueduct at Putney to Mortlake. The regatta will last three days and probably four days. Advice received from the American side state that a scratch amateur four are to visit these shores; also an amateur pair and the Columbia College crew; also Hanlon, the Canadian champion, and the famous Paris crew."

NARRAGANSETT BOAT CLUB.—The Narragansett Boat Club, of Providence, have elected the following officers for the ensuing year: President, Frederick A. Gower; Vice-President, A. C. Zingley; Captain, Frank A. Sheldon; Lieutenant, W. L. Tourtellot; Secretary, William C. Smith; Treasurer, Frederick W. Greene; Directors—Clinton Hall, L. Newton Peck, F. W. Greene, W. C. Smith, W. L. Tourtellot, E. A. Sheldou, F. A. Gower and A. C. Zingley.

HARVARD FRESHMAN CREW.—The captain of the present Harvard Freshman crew is Mr. W. H. North, of Somerville, and the names of the crew are as follows: A. W. Whiting, New York City; J. S. Bgl, Louisville, Ky.; N. J. Stevens, Lawrence, Kan.; W. Binney, Providence, R. I.; E. D. Blandford, Utica, N. Y.; W. Brewster, Boston; E. D. Harkins, New York City; P. S. Morse, Boston; W. D. Swan, Cambridge; J. Stewardson, Germantown, Pa.; S. Hammond, Nahant, and H. B. Howard, Worcester. Capt. North is the heaviest man in the crew, his weight being 188 pounds, and E. D. Harkins is the lightest man, his weight being about 155 pounds. The average weight of the men is about 165 pounds, and the height about five feet ten inches.

BOATING AT YALE.—The candidates for the honors of pulling in the coming race have been reduced by Capt. Thompson to eleven men as follows: Oliver David Thompson, Butler, Pa.; Herman Livingston, New York City; Frank Elbridge Hyde, Hartford, Conn.; Julian W. Curtis, Fairfield, Conn.; Adrian Snyder Polhemus, Astoria, N. Y.; John Proctor Clarke, New York City; Henry Waters Taft, Cincinnati, O.; William Reynolds Innis, Poughkeepsie, N. Y.; Frank Alexander Wright, Goshen, N. Y.; John William Keller, Paris, Ky.; George Bliss Rogers, Lexington, Mass. Their ages, heights and weights are furnished by Captain Thompson as follows:

Table with columns: Name, Age, Height, Weight. Lists names like Thompson, Livingston, Hyde, Curtis, Polhemus, Clarke, Taft, Innis, Wright, Keller, Rogers.

The crew will be selected next month.

BOATING AT WESLEYAN.—After a period of comparative inaction in boating matters the students at Wesleyan are now turning their attention to aquatic sports, and it is probable that about the college have an opportunity to participate in a New England regatta should be represented by an able crew. Among the men who will probably be selected for the crew are: one member of the crew of '75, D. H. Jack, of the Senior Class, and E. L. Mead, '78; E. A. Sumner, '78 (substitute); E. A. White, '78; B. A. Rich, '78, and J. W. Van Dusen, '79, of the crew of 1876. The college is to row a match with the Hartford Rowing Club, and hopes to meet Harvard or Yale at New London.

BOATING AT TRINITY.—The enthusiasm of Trinity in boating matters bids fair to triumph over the disasters of the flood which carried away her

boat-house, and the difficulties her delegates have met in their attempts to arrange for New England inter-collegiate matches. The subscriptions for the new boat-house amount to \$600, and the new structure will shortly be put up on the Connecticut. There is good material among the students, and the members of the crew would be formed from the following four who have previously rowed together.

Table with columns: Name, Height, Weight. Lists names like D Appleton, P P Wilcox, R H Nelson, W M Elbert.

Tiffany & Co., Silversmiths, Jewellers, and Importers, have always a large stock of silver articles for prizes for shooting, yachting, racing and other sports, and on request they prepare special designs for similar purposes. Their TIMING WATCHES are guaranteed for accuracy, and are now very generally used for sporting and scientific requirements. TIFFANY & CO. are also the agents in America for Messrs. PATEK, PHILIPPE & CO., of Geneva, of whose celebrated watches they have a full line. Their stock of Diamonds and other Precious Stones, General Jewellery, Artistic Bronzes and Pottery, Electro-Plate and Sterling Silverware for Household use, fine Stationery and Bric-a-brac, is the largest in the world, and the public are invited to visit their establishment without feeling the slightest obligation to purchase.

UNION SQUARE, NEW YORK

Medicinal.

APOLLINARIS NATURAL Mineral Water.

THE QUEEN OF TABLE WATERS. HIGHLY EFFERVESCENT.

DR. J. MILNER FOTHERGILL, London.—"The Exquisite Apollinaris; a delicious beverage." THE PROF. J. A. WANKLYN, St. George's Hospital, London.—"Highly effervescent, wholesome, and absolutely pure; superior to all others." DR. R. OGDEN DOREMUS.—"Absolutely pure and wholesome; superior to all for daily use; free from all the objections urged against Croton and artificially-aerated waters." DR. PETER HOOD, President of the Herts. Medical Society, etc.—"Superior to Vichy and Vals." PETER SQUIRE, F. L. S., Chemist to the Queen.—"Tenth edition of Companion to the British Pharmacopoeia. Exhilarating; good for sickness, dyspepsia, and loss of appetite." MACNAMARA, F. R. C. S., C. S. I., Surgeon to Westminster Hospital, London.—"More wholesome and refreshing than soda or seltzer water." W. ALLINGHAM, F. R. C. S., Surgeon to St. Mark's Hospital, London.—"By far the best sparkling water for daily use."

FREDK DE BARY & CO., 41 and 43 WARREN ST., N. Y.

Sole Agents for United States and Canada. For Sale by Dealers, Grocers and Druggists. Every genuine bottle bears the YELLOW label.

Wanted.

WANTED—Heavy single-barrelled breech-loading shot-gun, 4 or 5 cal. R. VALENTINE, Janesville, Wis. jan31 2t

WANTED—Second-hand breech-loading shotgun; send description and lowest cash price to J. W. MILLER, P. O. box 150, New Harmony, Indiana. jan31 2t

WANTED.—A double breech-loading shot-gun, 12-bore. Address E. P., office FOREST AND STREAM. jan31 1

NICHOLS & LEFEVER, SYRACUSE, N. Y., MANUFACTURERS OF

DOUBLE AND SINGLE-BARREL BREECH-LOADING SHOT-GUNS Double-Barrel Breech-Loading Rifles, and Shot and Rifle combined. Muzzle-Loading Creedmoor guaranteed to be the best, and not to give "UNACCOUNTABLE MISSES."

Our Catalogue for 1878 will be ready January 15, giving full description of gun, recent improvements in same, matters of general interest to Sportsmen, etc., etc.



The Kennel.

ST. LOUIS BENCH SHOW

February 19th, 20th, 21st and 22d, 1878.

\$3,000 CASH PRIZES, \$2,500 SPECIAL PRIZES.

REDUCED RATES AND PASSES FOR DOGS ON RAILROADS—HALF RATES BY ALL THE EXPRESS COMPANIES.

The richest prize list ever offered at a dog show in America. Premium lists ready for mailing on application to the Secretary.

Entries Close Feb. 5, 1878, Positively.

All entry fees must accompany entries. Certificates furnished exhibitors by the Association entitling the holders to reduced railroad rates and privileges.

CHAS. LINCOLN, Superintendent. JOHN W. MUNSON, Sec., St. Louis, Mo.

EDINA KENNEL.

JESSE SHERWOOD, Proprietor, Edina, Knox County, Mo., breeder and importer of Sporting Dogs. Pointers, setters, spaniels, fox and beagle hounds. "Sancho," Imp. Pointer, stud dog, fee, \$35. See English K. C. S. B., No. 1,005. He is a grandson of the celebrated "Hauket," No. 836. This dog "Sancho" has won seven prizes—four in England first at Crystal Palace, 1874, three here.

BALLARD'S FLEA KILLER! FOR THE DESTRUCTION OF FLEAS On Dogs and Other Animals.

An Absolute and Perfect Exterminator of the pest. May be used with entire safety. Contents of a package sufficient to rid half a dozen large dogs of the vermin.

NO PERSON OWNING DOGS SHOULD BE WITHOUT THE FLEA KILLER.

Price 50 Cents per Package.

Will be sent postage paid on receipt of price. Proprietors, LAZELL, MARSH & GARDINER, 1719 1/2

SPRATT'S PATENT MEAT FIBRINE DOG CAKES.

Twenty-one Gold, Silver and Bronze Medals awarded, including Medal of English Kennel Club, and of Westminster Kennel Club, New York.



None are genuine unless so stamped. F. O. De LUZE, 13 South William Street, N. Y., Sole Agent. BROWN & HILDER, St. Louis, Western Agents. For sale in cases of 112 pounds.

Fleas! Fleas! Worms! Worms!

STEADMAN'S FLEA POWDER FOR DOGS.

A Bane to Fleas—A Boon to Dogs.

This Powder is guaranteed to kill fleas on dogs or any other animals, or money returned. It is put up in patent boxes with sliding pepper box top, which greatly facilitates its use. Simple and efficacious.

Price 50 cents by mail, Postpaid

ARECA NUT FOR WORMS IN DOGS A CERTAIN REMEDY.

Put up in boxes containing a dozen powders, with full directions for use.

Price 50 cents per Box by mail. Both the above are recommended by ROD AND GUN and FOREST AND STREAM.

W. HOLBERTON, oct 12 102 NASSAU STREET.

The Kennel.

NATIONAL American Kennel Club.

RULES GOVERNING BENCH SHOWS AND FIELD TRIALS.

STANDARD OF EXCELLENCE AND POINTS GOVERNING BENCH SHOW OF DOGS.

All Contained in "Hints on Dog Breeding."

Price (25 cts.) by W. H. HOLBIRD, Sportsman Club, Valparaiso, Ind. Jan 31 4

FOR SALE, when eight weeks old, six black and tan Gordon setter puppies, four dogs and two pups, whelped Dec. 15, '77. Sire, imported Prince, dam, Fannie, she out of Boyden's Hope (imported) by Marble's Grouse. Address, A. H. THOMAS, Warrensburgh, N. Y. Jan 31 4

WEST MILTON COUNTRY—"Lelaps" in the stud, bred by R. L. Purcell, Ellwellville, England, sire "Leicester," dam "Doll," sister to "Dart" and "Drake," color white, ticked black and tan, 2 1/2 inches high, extra quality, very handsome. Fee, \$25.

SETTERS FOR SALE—"Fau," black and tan, pure Gordon, imp. stock, out of "Maud," by Marble's "Grouse," two years old; taught first lessons; bred to "Lelaps" Jan. 5, 1878; price \$75. One dog, two years, white and chestnut, sire Tucker's dog, Providence, R. I., Copeland's "Old Pete" grand sire, dam English imported; very handsome, 23 1/2 inches high; taught first lesson, and game shot over price \$75. "Bell," half imported red Irish and half English, color orange, two years old, taught first and second lessons (see circular), extra in field, fast, staunch and handsome, 23 1/2 inches high, never bred, price \$125; will breed her to "Lelaps," same price. Dogs trained and boarded. For terms and particulars, send for circular. FRANKLIN SUMNER, Milton, Blue Hill, Mass. Jan 4 4

FOR SALE—A valuable setter dog, nearly three years old, choice stock, price \$30. A first-class English double barrel breech-loader, made to order for A. A. Kellogg, New Haven, Conn.; used very little; warranted; size, No. 12; price, \$50. Also, a Butler Health-life; good as new; a little shop worn; cost \$75, price \$25. Address 213 Orange street, New Haven, Conn. Jan 31 4

THE DOG BREAKER'S GUIDE.—Train your own dogs in the most artistic manner. "The Dog Breaker's Guide" sent for three cent stamp. M. VON CULN, Delaware City, Del. Jan 17 4

FOR SALE.—One imported red Irish setter dog, Dash, from J. C. Cooper, Limerick, Ireland, of good stock, bred by Grouse out of FIVE. Dash is about two years old and unbroken; of a deep blood red color, with slight marking of white on face. Price moderate. One Chesapeake Bay duck dog, Price (long hair) well broken to retrieve (about one year old). Price, \$25. Snapshot, celebrated champion pointer, and Frank, imported English setter, winner of first at Philadelphia, in the stud. LINCOLN & HELLAR, Warren, Mass. Jan 17 4

COCKER SPANIEL BREEDING KENNEL OF M. P. MCKOON, Franklin, Del. Co., N. Y.—I keep only cockers of the finest strains. Sell only young stock. I guarantee satisfaction and delivery to every customer. These beautiful and intelligent dogs cannot be beaten for ruffed grouse and woodcock shooting and retrieving. Jan 10 4

FOR SALE CHEAP—Red Irish setter pup, whelped Nov. 21, out of Belle II.; she out of Belle Mead, by Robinson's Jack; sire Mack, he out of Carrie, by Plunket. P. DUNHAM, Leeds, Mass. Jan 24 2

FULL-BLOODED—Two Irish setter bitches, four months. Sire of pups, Don, imported from J. C. Cooper, of Limerick, Ireland, by C. H. Turner, Sec. Nat. Kennel Club, St. Louis, Mo.; dam, Countess, by Rodman's Dash. One Gordon bitch, eight months old; mated this fall; staunch on quail and very fast, with good nose; will make a good one. One Gordon bitch eight months old. Full pedigree given with pups. H. B. VONDERSMITH, Danvers, Pa. Nov 27 4

FOR SALE, when eight weeks old, six puppies out of my blue belton setter bitch, by Bob Dog. They are black and white. Two of them are black, white and tan, and are almost perfect images of their sire. For particulars, address L. F. WHITMAN, 5 City Hall, Detroit, Mich. Jan 23 7

FOR SALE, at a great bargain, my entire kennel with the exception of one brace for my own shooting. I have on hand, for sale: One pointer dog pup, Diller's Ranger stock; one pointer bitch pup, Don-Lina; one red Irish setter pup, Plunket-Nell; one lemon-and-white setter dog pup, Tam-Queen Blanche; one black-and-white setter bitch in whelp. Will sell the above at prices very much lower than ever before offered, and warrant them to be finely bred, and am confident no better blood exists. I am going to be absent from home much of the time hereafter, and must sell. Address W. H. HOLBIRD, Valparaiso, Ind. Jan 31 7

The Kennel.

FOR SALE, A BARGAIN—A well-broken setter dog, two years old, color blue belton; is fast, staunch, and good retriever. Price \$30. Address T. DENMEAD, P. O. box 483, Baltimore, Ind. Jan 31 11

DOGS.

DR. HENRY GARDNER, 1,702 Broadway, between 50th and 57th st., New York City. Dogs treated and purchased on commission. Thirty-one years experience in canine diseases. Ag 21f

FOR Irish and native setters, dogs and bitches of all ages, broken and unbroken, address E. J. ROBBINS, Wethersfield, Conn. Oct 12

For Sale.

SECOND-HAND.—A very fine Tolley breech loader, with two sets of barrels fitted to same stock; one pair 40-Damascus and very close shooting, other pair laminated steel and cylinder bore; weight, 9 lbs. and 9 1/2 lbs. This gun was made to order for the owner, and is very superior in every respect. Can be examined at gun store of HENRY C. SQUIRES, 1 Cortlandt street, N. Y. Nov 17

FOR SALE CHEAP—One fourth interest in a well-located brook front factory of most unlimited capacity, within 2 1/2 miles of a depot; also a good farm of 300 acres in connection with factory. Enquire at this office for further particulars. Jan 31 1

FOR SALE.—A very fine new Sharps Creedmoor Rifle, new model calibre 45, an exceedingly accurate shooter and guaranteed; has made 74 out of a possible 75 at 1,000 yards, 100 shells, implements, etc. Price, only \$30 cash—No exchange—cost \$115. Address, W. H. PIERCE, Box 500, Peekskill, N. Y. Jan 31 1

TOLLEY 12-bore, all the latest improvements, was made to order, little used, case and implements complete; cost \$200; cash \$125. C. M. PRIOR, 488 Pearl street. Jan 31 1

FOR SALE—A Remington, double-barrelled, breech-loading shot-gun; cost \$85; as good as new; will sell for \$60, including reloading tools, shells, etc. Address W. H. MILLER, Sterling Run, Cameron County, Pa. Jan 24 3

Rifles—Cheap.

The following rifles, second-hand and in good condition:

Table with columns for Rifle Description, List Price, and Price Asked. Includes items like SHARPS Creedmoor, Mid-range No. 1, Sporting, 50-cal, etc.

MAYNARD, in case, with implements complete; one 40-cal, one 40-cal, one 50-cal, one shot bbl. and one 40-cal, with telescope sights, a very complete rig. Cost over 100.00 60.00

SPLENDID TOLLEY... 28.00 22.50 (For any person wishing first-class English Express Rifle this is a great bargain.)

The above guns are nearly all the property of gentlemen who have no further use for them, and are sold at a great sacrifice. Each gun is exactly as represented, and will be sent for examination on satisfactory reference, or receipt of sufficient money to pay express charges. List of second-hand shot-guns next week. MANUFACTURED BY HENRY C. SQUIRES, No. 1 Cortlandt St., New York

Guns, Rifles, Etc.

Second-Hand Guns

AND SPORTING GOODS, WHICH CAN BE BOUGHT CHEAP AT J. F. MARSTERS, 125 NASSAU ST., N. Y.

- One Scott Premier 10-gauge choke-bore, weight 9 lbs., in first-class order, with case, price... \$325
One Remington Sporting Rifle, made to order, pistol grip, rubber heel to prevent recoil, 44-calibre... 20
One Hollis' 10-bore, 9 lb., pistol-grip, rebounding locks... 70
One Remington Military Rifle, 1,000-yard range... 8
One Franch Double Gun, pin-fire, 16 gauge... 25
One More & Harris Muzzle-Loader, 10-gauge, 5 1/2 lbs., double gun... 35
One Hollis' Ducking double gun, 8 gauge, 14 lb... 25
One Scott Muzzle-Loader, 12 lb., 9-gauge, 34-in... 20
One Ballard Rifle, 41-cal., 10 lbs... 20
One Colt's Revolving Rifle, 6 shot... 18
One Maynard Rifle, little the worse for wear... 8
One Single Muzzle-Loader, 10-gauge, cost \$45... 15
One Single Breech-Loader, Spencer's make... 10
One Skeleton Stock Stephen's Rifle, 22-calibre, in case... 12
One General Fishing Rod, will make up five different rods, German silver-mounted, cost \$40... 20
One large German silver trolling reel, holds 600 feet line... 10

J. F. MARSTERS, 125 Nassau st., N. Y.

Sportsmen's Emporium.

SHOOTING, FISHING AND CAMPING GOODS OF EVERY DESCRIPTION.

Send 10 cents for 50-page illustrated catalogue, with rules for glass ball shooting, hints on camping, shooting and fishing, etc.

TENTS, STOVES, JACK LAMPS, BLANKETS, RUBBER GOODS, ETC.

THE NEW TREBLE-BOLT FOX GUN

Split Bamboo Fly Rods; the best in the market. Agent for the celebrated McBride Files, Good's Moccasins, Thomson's Shooting Boots and Shoes, Leather and Canvas Suits of all kinds.

Holberton's Trout Flies, per dozen, \$1. Holberton's full-length Russia-Leaf Fly Books.

OUTFITS FOR FLORIDA AND THE WEST.

Sportsmen's Diary and Notebook, with blank scores and useful receipts, etc., mailed on receipt of 50 cents.

PURDY'S GLASS BALL TRAPS, \$3.50. The best for wing practice.

Paine and Bogardus' glass balls; Kay's composition Balls. Repairing, altering and boring of guns done in the best manner. English and American Wading Stockings and rubber goods for fishing and camping. Bestor's Rust-Preventer. Dog Medicines for worms, fleas and mange.

W. HOLBERTON & CO., P. O. Box 5,102, 117 Fulton St., N. Y.

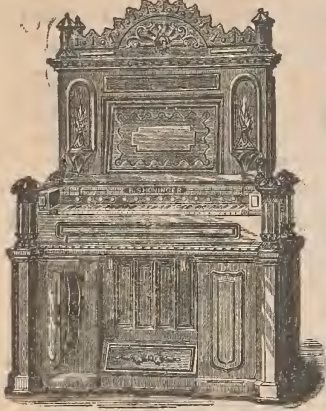
SPARKS' Chilled Shot,

RIVALLING THE ENGLISH.

Price, 9 3-4 cents per pound.

MANUFACTURED BY THOMAS W SPARKS, 121 Walnut Street, PHILADELPHIA SUBJECT TO USUAL DISCOUNT. Jan 17, 11

HIGHEST HONORS AT THE Centennial World's Fair, 1876! THE SHONINGER ORGANS



PRONOUNCED UNANIMOUSLY AS THE Best Instruments.

Their comparative excellence is recognized by the Judges in their Report, from which the following is an extract:

"The B. SHONINGER ORGAN CO.'S exhibit as the best Instruments at a price rendering them possible to a large class of purchasers, having a combination of Reeds and Bells, producing novel and pleasing effects, containing many desirable improvements, will stand longer in dry or damp climate, less liable to get out of order, all the boards being made three-ply, put together so it is impossible for them to either shrink, swell or split." THE ONLY ORGANS AWARDED THIS RANK.

There are 50,000 of our Instruments in this and the European countries in use, and they are so made that they will keep in tune, and stand any climate. They contain a magnificent Chime of Bells, tuned in perfect harmony with the Reeds, producing wonderful effects. The Music Rack, when turned forward, will make a splendid writing desk, with our Book Closets and Swinging Lamp or Flower Brackets, with a fine stool boxed free with each Organ, makes the SHONINGER ORGANS the most substantial, convenient and perfect Organ.

ESTABLISHED 1850.

We are prepared to appoint a few new Agents.

A liberal discount to the Clergy, Sunday Schools, Teachers, Churches and Lodges.

Illustrated Catalogues, with prices, sent by mail upon application to B. SHONINGER ORGAN CO., 97 to 123 Chestnut Street, NEW HAVEN, CONN.

Gunpowder.

Warren Powder Mills

MANUFACTURERS OF

BLASTING AND MINING, SHIPPING AND SPORTING GUNPOWDER.

SPORTING BRANDS—Eureka, Continental "Border Rifle," Snider, and Warren Sporting Cannon and Musket, U.S. Standard. The above can be had of the dealers, or at wholesale at the office, 37 Dime Street, Boston, Mass., and of the agents, JOHN P. LOVELL & SONS, corner of Washington, Cornhill and Brattle streets, Boston, Mass. 3719

THE HAZARD POWDER CO.,

MANUFACTURERS OF

GUNPOWDER,

Hazard's "Electric Powder."

Nos. 1 (fine) to 6 (coarse). Unsurpassed in point of strength and cleanliness. Packed in square canisters of 1 lb. only.

Hazard's "American Sporting."

Nos. 1 (fine) to 6 (coarse). In 1 lb. canisters and 6 1/2 lb. kegs. A fine grain, quick and clean, for blind prairie shooting. Well adapted to shot-guns.

Hazard's "Duck Shooting."

Nos. 1 (fine) to 6 (coarse). In 1 and 5 lb. canisters and 6 1/2 and 12 1/2 lb. kegs. Burns slowly and very clean, shooting remarkably close and with great penetration. For field, forest or water shooting, it ranks any other brand, and it is equally serviceable for muzzle or breech-loaders.

Hazard's "Kentucky Rifle."

FFFG, FFG, and "Sea Shooting" FG, in kegs of 25, 12 1/2 and 6 1/2 lbs, and cans of 1 lb. FFG is also packed in 1 and 5 lb. canisters. Burns strong and moist. The FFG and FFG are favorite brands for ordinary shooting, and the "Sea Shooting" FG is the standard Rifle powder of the country.

Superior Mining and Blasting Powder.

GOVERNMENT CANNON & MUSKET POWDER; ALSO, SPECIAL GRADES FOR EXPORT OF ANY REQUIRED GRAIN OR PROOF, MANUFACTURED TO ORDER.

The above can be had of dealers, or of the Company's Agents in every prominent city, or wholesale at our office.

85 WALL STREET, NEW YORK.

English Sporting Gunpowder. CURTIS & HARVEY'S DIAMOND GRAIN

Nos. 2, 3, 4, 5, 6, 7 and 8. Superior Rifle, England Rifle, and Col. Hawker's Dragoon. W. STITT, 51 Cedar Street, N. Y. Agent for the United States.

Sportsmen's Goods.

BOSTON SHOOTING SUIT.

Manufactured only by

G. W. SIMMONS & SON, BOSTON, MASS.

THE BEST IN USE.

ONLY ONE QUALITY MADE AND THAT IS THE VERY BEST.

Each article—coat, trowsers, vest and hat—have the name and manufacturer's address stamped upon it, and no suit is genuine without it bears this imprint.

The suit can be sent, securely packed, by mail to any part of the United States or Canada on receipt of \$1.25 above the price of the suit.

We make no discount except to the trade. We make but one quality, and that is the VERY BEST. The price of the suit complete is \$13.

The suit consists of coat, trowsers, vest, and choice of either cap with havelock, or hat.

The material is of the best quality of duck, waterproofed by a patent process. The color is that known as "dead grass shade."

The seams and pocket corners are riveted, and nothing is neglected to make the whole suit complete in every way.

OUR PATENT DECOYS

have entirely superseded the old-fashioned cumbersome wooden decoys. The birds are hollow, and six of them occupy about the space of one wooden decoy. The Duck Decoys of all kinds are \$12 per dozen; geese, \$9 each; yellow leg, \$4.25 per dozen; black breast plover, \$3.75 per dozen; red breast plover, \$3.75 per dozen; golden plover, \$3.75 per dozen; turnstone, chicken plover, etc., \$3.75 per dozen; sandpipers, \$3.50 per dozen. We are now making standing geese for field shooting.

THE HUNTER'S TENT

is made of tan-colored duck; light, easily transported. Size, 7 ft. by 8 ft. Price, \$10 complete, made on the umbrella principle, folding into a neat roll 3 feet long.

In the judges' report at Philadelphia they were commended for excellence in every part. Very novel and practicable; adapted to all out-of-door purposes where lawn, beach, hunters and camp tents are used; quick folding; all sides strongly fortified; enables them to stand against wind and rain. Rev. F. B. Savage, of Albany, N. Y., who camps out in Florida in winter, and the Adirondacks in summer, writes this about the tents:

ALBANY, July 31, 1877.

SIRS—I have just returned from a three-weeks' camping expedition in the Adirondacks, and have had the three tents bought of you put to the severest tests of exposure both as to wind and storm, and I do most unhesitatingly say they are the most complete thing of the kind I ever used.

- 1st. They are easily put up or taken down.
2d. They are perfectly waterproof.
3d. They are a good height and all the room is available.

Our party asked for no better. They were admired by all who saw them, and one party insisted on buying one of ours that was to spare. Rev. Dr. Duryea, of Brooklyn, and the Rev. Dr. Irwin, of Troy, both indorse what I say about your tent. With kind regards, yours truly, F. B. SAVAGE.

Tan-Colored Leather Pliable Waterproof Suits.

Shooting Coats, Jackets, Breeches, Vests and Hats at following prices: Coats, \$22; Breeches \$15; Jackets, \$18; Vests, \$12. These form the most elegant shooting equipment known. They are indestructible.

A recent notice in the FOREST AND STREAM, from a correspondent, says:

Whenever a sportsman, or even one who does not claim the distinction, finds a really good and useful article, it is no more than fair that he should let others have the benefit of his knowledge. For this reason we would call attention to the Tan-colored Leather Shooting or Fishing Knits, made by G. W. SIMMONS & SON, of Boston, Mass., the manufacturers of the famous "Boston Shooting Suit."

I saw these goods advertised in your paper, and wrote to the parties for sample. I found the material as soft and pliable as a piece of kid. I tested it by soaking in water twelve hours, and found it was nearly waterproof as one could desire, and after drying was happily surprised to find it had not stiffened in the least. I have since then received a full suit—coat, vest and breeches—ordered by letter from measure taken by myself.

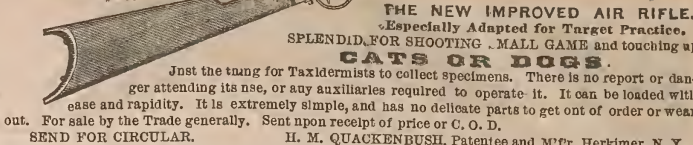
The goods are splendidly made, well lined with flannel; in fact I do not see how they can be improved.

My friends are unanimous in their verdict that G. W. Simmons & Son's leather goods cannot be excelled in quality or beaten in price.

For every kind of sportsmen's goods address

G. W. SIMMONS & SON, Oak Hall, Boston, Mass.

PRICE, BOXED, WITH DARTS, SLUGS, TARGETS, &c., \$10. FULL NICKEL PLATE \$12.



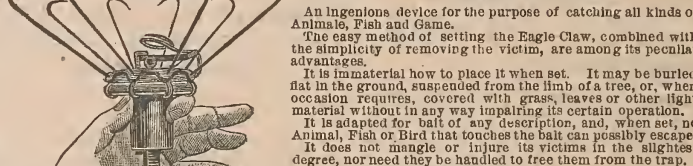
THE NEW IMPROVED AIR RIFLE. Especially Adapted for Target Practice. SPLENDID FOR SHOOTING SMALL GAME and touching up CATS OR DOGS. Just the thing for Taxidermists to collect specimens. There is no report or danger attending its use, or any auxiliaries required to operate it. It can be loaded with ease and rapidly. It is extremely simple, and has no delicate parts to get out of order or wear out. For sale by the Trade generally. Sent upon receipt of price or C. O. D. SEND FOR CIRCULAR. H. M. QUACKENBUSH, Patentee and Mfr, Herkimer, N. Y.

Hart's Sportsman's Favorite Metallic Shells. FOR BREECH-LOADING SHOT GUNS.

These Shells are easily loaded, and the caps easily extracted from inside. Head solid and much thicker than any Shell now made, giving a solid seat for cone or anvil, which prevents it from driving through or springing away, thereby causing miss-fires. The Cone is made of nickel, and fastened solid in its place. Neither rusts nor corrodes fast, like movable anvil made from steel. The Nickel Cone also prevents miss-fire when a cap has been left on shell for a few days, which is liable to occur either in steel or iron. These Shells are finely finished, and made any length ordered, from 2 1/4 to 3 1/2 inches. Shells and Loaders and Descriptive Price-Lists can be obtained from all the leading Sportsmen's Houses throughout the country. GEO. E. HART & CO., Newark, N. J.

FROM CAPTAIN BOGARDUS, CHAMPION WING-SHOT OF AMERICA. Messrs. GEORGE E. HART & Co.—Gentlemen: The fifty Shells I received from you today sent me better than any I have ever used. They are stronger and better in every respect, and I shall use them in my shooting hereafter. Yours truly, A. H. BOGARDUS.

A VICTORIOUS INVENTION The Eagle Claw.



An ingenious device for the purpose of catching all kinds of Animals, Fish and Game.

The easy method of setting the Eagle Claw, combined with the simplicity of removing the victim, are among its peculiar advantages.

It is immaterial how to place it when set. It may be buried flat in the ground, suspended from the limb of a tree, or, when occasion requires, covered with grass, leaves or other light material without in any way impeding its certain operation.

It is adapted for bait of any description, and, when set, no Animal, Fish or Bird that touches the bait can possibly escape. It does not mangle or injure its victims in the slightest degree, nor need they be handled to free them from the trap.

- PRICE LIST.
No. 1—For fishing and all kinds of small game and animals, sent by mail..... 35 cents.
No. 2—For catching Mink, Muskrats, Raccoons, large Game, Fish, etc..... 75 cents.
No. 3, or Rocky Mountain Claw, for catching Bears, Wolves, Panthers, etc. Can be easily set by a boy, and will stand a strain of several hundred pounds. Weight, 10 to 15 lbs. \$10.
All goods sent, charges paid, to any address on receipt of price. Address

Stent & Co., Mfr's. Agents, 132 Nassau St., NEW YORK. P. O. box 2997.

SHARPS' RIFLES---MODEL 1878.

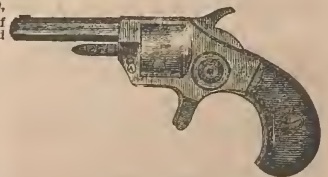
ORDERS FOR THE NEW MILITARY AND LONG-RANGE RIFLE ARE NOW BEING FILLED.

SEND FOR ILLUSTRATED PRICE LIST.

Sharps' Rifle Co., Bridgeport, Conn. NEW YORK WAREROOMS, 177 BROADWAY.

COLT'S REVOLVERS.

Great reduction in the price of the New Model; 32, 30, 32, 38 and 41 calibres. Send for new reduced price list of Revolvers, Boxing Gloves, Air Guns, Novelties and Sportsmen's Goods.

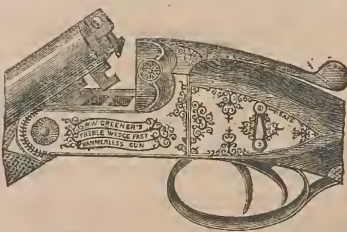


Fish & Simpson,

P. O. Box 4,968. 132 NASSAU ST., N. Y.

W. W. Greener's Patent Wedge Fast, Hammerless Breech-Loader.

THE GUN OF THE FUTURE.



It has already made its mark in Great Britain. The self-cocking is effected by the raising of the breech ends of the barrels for loading, and works smoothly and without requiring much force to open the gun and cock the locks. There is a safety bolt at the side which answers for half cock. The mechanism of this action is exceedingly strong and simple, and is better suited for hard work than any other gun in use.

W. W. GREENER winner of the Great London Gun Trials of 1876 and 1877, beating 141 guns by all the best makers of London, Birmingham, Edinburgh and Dublin.

These guns are warranted to kill game at 100 yards. Read W. W. GREENER'S book on Chokey-Bore Guns and How to Load, published by Messrs. Cassell, Petter & Galpin, New York.

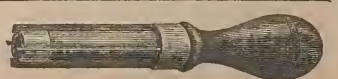
ST. MARY'S WORKS, Birmingham and 68 Haymarket, London.

Sportsmen's Headquarters

FOR WINES, LIQUORS AND CIGARS.

Onfits for yachting. The camp or field a specialty. Olives by the case, gallon or bottle

HOS. LYNCH, IMPORTER, 99 NASSAU ST., Building, New York.



Ronan's Metal Shell Cleaner.

Cleans fifty shells in ten minutes. No water used. Kneads elastic and adjusting, prevent the slipping of wads. Is unequalled as a breech wiper by covering with an oiled cloth. For sale by all gun dealers, or sample sent free by mail on receipt of price, \$1.50; 10 and 12 bore. J. P. RONAN, 785 Shawmut Avenue Boston, Mass. Liberal discount to the trade. Nov 8

Publications.

LONG-RANGE RIFLE SHOOTING.

A Complete History of the International Long-Range Matches, 1873-1877—Complete Elcho Shield Scores—Rules and Regulations of the N. E. A. Etc., Etc.

FULLY ILLUSTRATED

BY THE RIFLE EDITOR OF THE "FOREST AND STREAM AND ROD AND GUN."

Price 25 cents.

NEW YORK.

Published by the Forest and Stream Pub. Co. 1877.

Bound Volumes

Forest and Stream.

EIGHTH VOLUME, NOW READY.

First Four Volumes, \$4 each, Others, \$3.50.

A complete set of the FOREST AND STREAM—seven volumes, bound handsomely in cloth—a valuable library for the sportsman—can now be obtained on application to this office.

BINDERS.

Get your fine books bound. Art Journal bound uniform to London publishers' style. Picturesque America, Art Treasury of Germany and England, Women in Sacred History, large Family Bibles, all illustrated works, music and magazines in the best styles and lowest prices; done in two or three days if required.

E. WALKER'S SONS, 14 Day street.

Camp Life in Florida.

By CHARLES HALLOCK,

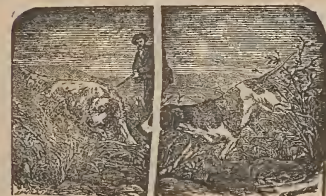
AUTHOR OF THE FISHING TOURIST,

Published by Forest and Stream Publishing Co.,

No. 111 FULTON STREET, NEW YORK,

And for sale by all booksellers. Sent by mail, postage prepaid, on receipt of price (\$1.50) at office of publication.

FRANK SCHLEY'S AMERICAN



Partridge & Pheasant Shooting.

Describing the Haunts, Habits, and Methods of Hunting and Shooting the American Partridge—Quail—Ruffed Grouse—Pheasants, with directions for handling the gun, hunting the dog, and shooting on the wing. Price, \$2. Liberal discount to the trade.

To be had at book stores generally. Address, Frank Schley, Frederick City, Md.

KNOW THYSELF

A new Medical treatise, "The Science of Life, or Self-Preservation, a book for everybody. Price \$1, sent by mail. Fifty original prescriptions, either one of which is worth ten times the price of the book. Gold medal awarded the author. The Boston Herald says: "The Science of Life is, beyond all comparison, the most extraordinary work on Physiology ever published." An Illustrated Pamphlet sent FREE. Address DR. W. H. PARKER, No. 4 Bulfinch Street, Boston, Mass.

HEAL THYSELF

The Southern Guide.

A finely illustrated quarterly periodical, exhibiting the characteristics and resources of the Southern States. One dollar per year; single copies, 25 cents. Published by BRAMHALL & CO., Washington, D. C. Dec 31

POULTRY WORLD—A splendidly illustrated monthly, \$1.25 a year. Send 10 cts for a specimen copy. Address POULTRY WORLD, Hartford, Conn. Dec 1st Ex

Publications.

Sportsman's Gazetteer

AND GENERAL GUIDE, By CHARLES HALLOCK, Editor "Forest and Stream and Rod and Gun."

896 pp., Price \$3.

Tinted Paper, \$4; half-bound mo., \$5.

A complete Dictionary for Sportsmen. Everybody wants it that has a dog, gun or fishing rod.

A complete description of all kinds of Game, Fish, etc. Field Sports, Woodcraft, Angling, Fly Tying, Dogs, Dog Breeding, Diseases and Treatment, Boating and Boat-building.

Several thousand localities where game and fish are to be found. Nothing of the kind ever before published worth ten times the price.

PUBLISHED BY

FOREST & STREAM PUBLISHING CO.

111 Fulton street, New York.

New Edition, with 100 additional birds.

WILSON'S

American Ornithology;

OR,

Natural History of the Birds of the United States

With the continuation by PRINCE CHARLES LUCIEN BONAPARTE. New and enlarged edition, completed by the insertion of above one hundred birds omitted in the original work, and illustrated by valuable notes and a life of the author by Sir WILLIAM JARDINE. Three volumes 8vo, with a Portrait of WILSON, and 103 plates, exhibiting nearly four hundred figures of birds, accurately engraved and beautifully colored, cloth extra, \$18. Half smooth morocco, gilt tops, \$20. Half morocco, extra, gilt tops, \$22. Full tree calf extra, gilt or marbled edges, \$30.

J. W. BOUTON, 706 Broadway, N. Y.

Jan 31 4t

Sportsmen's Routes.

FOR FLORIDA

FOR THROUGH TICKETS TO FERNANDINA JACKSONVILLE, ST. AUGUSTINE, SANFORD, ENTERPRISE, and intermediate landings on ST. JOHN'S RIVER and interior points in FLORIDA, by steamship to SAVANNAH, and thence by railroad or steamboat, apply to WM. L. JAMES, General Agent.

Philadelphia and Southern Mail S. S. Co., Pier 22 South Delaware Avenue, Phila.

Dec 14-1y

"The Bermudas."

NOW A FAVORITE AND DELIGHTFUL WINTER RESORT, is reached in seventy hours from New York, and being surrounded by the warm waters of the Gulf Stream enjoys an equable temperature of about 70 deg.

The elegant British Steamships "Bermuda," and "Camina," 1,000 tons, fitted expressly for the passenger travel, are dispatched from New York for Bermuda fortnightly, making connection at Bermuda with steamers for St. Thomas and West Indies. For full information apply to A. E. OUTERBRIDGE, Agent, 29 Broadway, N. Y. Dec 31 1y.

St. Paul and St. Louis Short Line.

Burlington, C. Rapids & N'wth'n Railway.

QUICKEST, CHEAPEST AND BEST!

TWO PASSENGER TRAINS EACH WAY DAILY, crossing and connecting with all East and West Lines in Iowa, running through some of the finest hunting grounds in the Northwest for Geese, Ducks, Pinnated and Ruffed Grouse and Quail. Sportsmen and their dogs taken good care of. Reduced rates on parties of ten or more upon application to General Ticket Office, Cedar Rapids. C. J. IVES, E. P. WINSLOW, Gen. Passenger Agent, General Manager.

Old Dominion Line.

The steamers of this Line reach some of the finest waterfowl and upland shooting sections in the country. Connections direct for Chincoteague, Cobb's Island, and points on the Peninsula. City Point, James' River, Carrinck, Florida, and the mountainous country of Virginia, Tennessee, etc. Norfolk steamers sail Tuesday, Thursday and Saturday; Delaware, Monday and Thursday at 3 P. M. Full information given at office, 197 Greenwch St., New York. Sep 25 1y

Sportsmen's Routes.

REDUCTION OF FARE.

\$3 NEW YORK TO BOSTON VIA THE Fall River Line

To Boston and Return, \$5.

Magnificent Steamers NEWPORT and OLD COLONY leave New York daily (Sundays excepted) at 4:30 P. M. This is the only Sound Line giving passengers a FULL NIGHT'S REST. Passengers take any one of the FIVE MORNING TRAINS from Fall River to Boston.

BORDEN & LOVELL, GEO. L. CONNOR, Agents, General Pass Agent.

NEW YORK AND PHILADELPHIA NEW LINE BOUND BROOK ROUTE.

FOR TRENTON AND PHILADELPHIA. COMMENCING NOVEMBER 26, 1877.

STATION IN NEW YORK.—Foot of Liberty st. N. R. Leave New York for Trenton and Philadelphia at 6:30, 9:30, 11:30 A. M., 1:30, 3:30, 5:30, 12 P. M., and 4 P. M. for Trenton.

Leave Philadelphia from station North Pennsylvania Railroad, Third and Berks streets, at 12:05 7:30, 9:30, 11:30 A. M., 1:30, 3:30, 5:30 P. M.

Leave Trenton for New York at 1:20 (except Monday), 6:35, 9:35, 10:20 A. M., 12:15, 2:15, 4:10, 6:10 P. M.

Fullman Drawing Room Cars are attached to the 9:30 A. M., 3:30 P. M. trains from New York and to the 7:30 A. M., 1:30 P. M. trains from Philadelphia.

SUNDAY TRAINS.—Leave New York and Philadelphia at 9:30 A. M., 6:30, 12 P. M. Leave Trenton for New York at 1:20, 10:20 A. M., 6:10 P. M.

Tickets for sale at foot of Liberty street, Nos. 529 and 644 Broadway, at the principal hotels, all offices of the Erie Railway in New York and Brooklyn, and at No. 4 Court street, Brooklyn. Baggage checked from residence to destination.

Sept 15 H. P. BALDWIN, Gen. Pass. Agent.

GREAT SOUTHERN Freight & Pass'nger Line,

VIA Charleston S. C. The South and the Southwest

AND THE FLORIDA PORTS,

Wednesday and Saturday At 3 o'clock P. M. From Pier 27, N. R.

CITY OF ATLANTA, CHARLESTON, Capt. M. S. Woodhull. Capt. R. W. Lockwood. SANTIAGO DE CUBA, G. W. CLYDE, Capt. S. Crowell.

The above steamers have been handsomely fitted up for the convenience of passengers, and are unrivalled on the coast for

Safety, Speed and Comfort.

Close Connections at Charleston with the favorite and well-known Florida packets, DICTATOR, Capt. Vogel; CITY POINT, Capt. Scott; for FERNANDINA, JACKSONVILLE, ST. AUGUSTINE, PALATKA, ENTERPRISE, MELONVILLE and all points in Florida.

EXCURSION TICKETS AT REDUCED RATES. Insurance to destination ONE-HALF OF ONE PER CENT.

Goods forwarded free of Commission. Passage tickets and Bills of Lading issued and signed at the office of JAMES V. QUINCY & CO., Agents, Pier 37, N. R., foot Park Place. Office on the wharf.

W. P. CLYDE & CO., No. 6 Bowling Green. Through Freight Tariffs, Passage Tickets by all routes and to all points in the South and Southwest, and further information can be obtained at the office of BENTLEY D. HASELL, General Agent, Great Southern Freight Line, 317 Broadway, corner of Thomas street. Oct 11 3m

TO SPORTSMEN:

THE PENNSYLVANIA R. R. CO. Respectfully invite attention to the Superior Facilities

afforded by their lines for reaching most of the SPORTING PARKS and RACE COURSES in the Middle States. These lines being CONTINUOUS FROM ALL IMPORTANT POINTS, avoid the difficulties and dangers of reshipment, while the excellent cars which run over the smooth steel tracks enable STOCK TO BE TRANSPORTED without failure or injury. The lines of

Pennsylvania Railroad Company also reach the best localities for GUNNING AND FISHING

in Pennsylvania and New Jersey. EXCURSION TICKETS are sold at the office of the Company in all the principal cities to KANE, RENOVA, BEDFORD, CRESSON, RALSTON, MINNEQUA, and other well-known centers for Trout Fishing, Wing Shooting, and Still Hunting.

Also, TUCKERTON, BEACH HAVEN, CAPE MAY, SQUAN, and points on the NEW JERSEY COAST renowned for SALT WATER SPORT AFTER FIN AND FEATHER.

L. P. FARMER, Gen'l Pass. Agent. FRANK THOMSON, Gen'l Manager. Feb 17 2t

Wild Fowl Shooting.

SPRINGVILLE HOUSE OR SPORTSMEN'S RETREAT, SHINNECOCK BAY, L. I.,

By a particular gunner and an old bayman. Has always on hand the best of boats, batteries, etc., with the largest rig of trained wild-geese on the coast. Special attention given by himself to his guests, and satisfaction guaranteed. Address WM. N. LANE, Good Ground, L. I. Nov 8 1t

Sportsmen's Routes.

ST. AUGUSTINE, FLA., NASSAU, N. P., HAVANA, CUBA.

From Savannah, Ga., to Nassau, N. P., and Havana, Cuba, via St. Augustine, Fla., steamship San Jacinto will sail Jan. 23, Feb. 12 and 26, and every alternate Tuesday. Connecting steamers leave New York on Jan. 26, Feb. 9 and 23.

FOR NASSAU DIRECT,

Steamship Carondelet, February 6 and March 9, and monthly thereafter from Pier 16, East River, New York.

For all particulars, illustrat. guide, &c., apply to

MURRAY, FERRIS & CO.,

No. 62 South St.

ONLY DIRECT

FLORIDA LINE.

For Fernandina, Fla., Port Royal, S. C., and Brunswick, Ga.

Sailing every FRIDAY from Pier 20, E. R., at 3 P. M.

Close connection made at each port with all railroads for the interior, and at Fernandina with the steamer Carri (which has been refurnished), for Jacksonville and the St. John's River.

For through rates of freight and passage to all points in the South and Southwest, apply to

G. H. MALLORY & CO., Agents, 153 Maiden Lane, Nov 23 4m NEW YORK.

NEW HAVEN, HARTFORD, SPRINGFIELD, AND THE NORTH.

The first-class steamer ELIZABETH leaves Pier 25, East River, daily (Sundays excepted) at 3 P. M. Passengers to North and East at 12 P. M.

NIGHT LINE.—The CONTINENTAL leaves New York at 11 P. M., arriving in New Haven in time for the early morning trains.

Merchandise forwarded by daily express freight train from New Haven through to Massachusetts, Vermont, Western New Hampshire, Northern New York and Canada. Freight received until 5 P. M. RICHARD PECK, General Agent.

HUNTING

FOR DEER, BEAR, PARTRIDGES, DUCKS, Take the Grand Rapids and Indiana Railroad.

FISHING

FOR HKE, PICKEREL, BASS, ETC, Follow the G. R. and I.—The "Fishing" Line

Time, New York to Grand Rapids, 37 hours

EXPENSES LOW.

Shooting season expires December 15. For information as to routes, rates and best points for the various kinds of game, etc. Apply to

A. B. LEET, Gen. Pass Agent, Grand Rapids, Mich. Eastern Agent, 116 Market St., Phila., Pa. Nov 22 1t

STONINGTON LINE, FOR BOSTON AND ALL POINTS EAST.

REDUCED FARE: Elegant Steamers STONINGTON and NARRAGANSETT leave Pier 33 North River, foot Jay St. at 5:00 P. M. NOT A TRIP MISSED IN SEVEN YEARS.

Tickets for sale at all principal ticket offices. State rooms secured at offices of Westcott Express Company, and at 363 Broadway, New York, and 333 Washington St., Brooklyn.

PROVIDENCE LINE. Freight only, steamers leave Pier 37, North River, foot Park Place, at 4:30 P. M. Freight via either line taken at lowest rates. L. W. FILKINS, G. P. Agent, D. S. BABCOCK, Pres.

Gmpowder.

ORIENTAL POWDER MILLS MANUFACTURERS OF ALL KINDS OF GUNPOWDER

Office—13 BROAD STREET, BOSTON.

BRANDS—DIAMOND GRAIN, FALCON DUCKING, WILD FOWL SHOOTING, WESTERN SPORTING, (Oriental Rifle.)

The "Oriental" powder is equal to any made; no expense is spared to make the best.

BRANCH OFFICES.

J. G. Munro, Agent, 19 Exchange St., Buffalo, N. Y. Cobb & Wheeler, Agents, 9 State St., Chicago, Ill. G. J. Chapin, Agent, 215 Locust St., St. Louis, Mo.

Agencies in the principal cities in the United States. CITY AND COUNTRY PROPERTY bought, sold and exchanged. C. S. PECK, 8 West Twenty-fifth street, New York. Sept 17 1y

STATEMENT OF THE MUTUAL LIFE INSURANCE COMPANY OF NEW YORK, F. S. WINSTON, President, For the Year ending December 31st, 1877.

Table with 4 columns: No., ANN. PAY'TS., Annuities in force, Jan. 1st, 1877, and No., ANN. PAY'TS., Annuities in force, Jan. 1st, 1878.

Table with 4 columns: No., AMOUNT, Policies in force, Jan. 1st, 1878, and No., AMOUNT, Policies in force, Jan. 1st, 1878.

Table with 2 columns: Dr. and Cr. Revenue Account, listing items like To Balance from last account, Premiums received, Interest and Rents, etc.

Table with 2 columns: Dr. and Cr. Balance Sheet, listing items like To Reserve at four per cent., Claims by Death, Premiums paid in advance, etc.

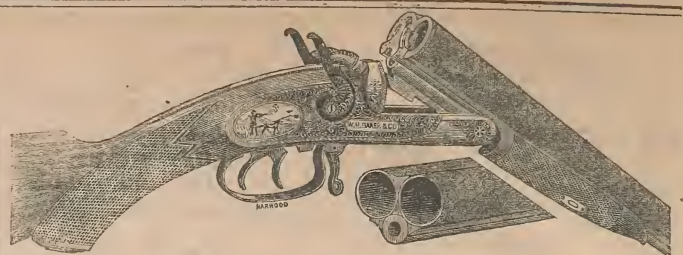
NOTE.—If the New York Standard of four and a half per cent Interest be used, the Surplus is \$10,669,543.65.

- BOARD OF TRUSTEES. FREDERICK S. WINSTON, ROBERT H. MCCURDY, WILLIAM BETTE, SAMUEL M. CORNELL, etc.

ESTABLISHED IN 1837. Consult your interest by sending for our revised and reduced prices.

Excelsior Double Treadle, Buffalo Pony Planer, SMALL STEAM ENGINES, Buffalo Excelsior Pony Planer and Matcher. Includes illustrations of various machinery.

H. L. LEONARD, Metropolitan Hotel, WASHINGTON, D. C. FINE RODS FOR SALMON, BASS AND TROUT FISHING. Split Bamboo Rods a Specialty. R. B. COLEMAN & CO., Proprietors of these famous hotels.



Three-Barrelled Breech-Loading Guns, TWO SHOT AND ONE RIFLE. A new feature in the Sporting Line. Forms a light and compact gun from eight to ten pounds.

IRA A. PAINE'S FEATHER FILLED GLASS BALL. PATENTED OCTOBER 23. THE "STANDARD" BALL.

The Bohemian Glass Works having made a specialty of the manufacture of Glass Balls for Trap Shooting for the past year, and having facilities for manufacturing cheaper and better than other establishments.

Bogardus' Patent Rough Glass Balls and Glass Ball Traps. These traps are the only ones that give satisfaction, as they are simple of construction, easily set, and not liable to get out of order.

HEADQUARTERS FOR BALLS, HAGGERTY BROS., 10 Platt Street. FOR TRAPS, GEO. E. HART & CO., Newark, N. J.

THE UNITED STATES CARTRIDGE COMPANY, LOWELL, MASS. Manufacturers of the CENTRAL FIRE, SOLID HEAD, BRASS SHELL, RE-LOADING CARTRIDGE.

Sportsmen, Attention. Keep Your Feet Dry. The only premium awarded by the Centennial Commission, Philadelphia, 1876, for Alligator Waterproof Boots and Shoes.

NEW YORK SHOOTING COAT. MADE OF WATERPROOF VELVETEEN, CORDUROY, FUSTIAN OR CANVAS. Having the above Coat thoroughly tested the past season by sportsmen in different parts of the country.











SMITHSONIAN INSTITUTION LIBRARIES



3 9088 90012 3845